Conference Management System

Project Report submitted in partial fulfillment of the requirement for the degree of

Bachelor of Technology.

in

Computer Science & Engineering

under the Supervision of

Ms. Reema Aswani

By

Piyush Virmani , 111213

to

Jaypee University of Information and Technology

Waknaghat, Solan – 173234, Himachal Pradesh

Certificate

This is to certify that project report entitled Conference Management System, submitted by Piyush Virmani in partial fulfillment for the award of degree of Bachelor of Technology in Computer Science & Engineering to Jaypee University of Information Technology, Waknaghat, Solan has been carried out under my supervision.

This work has not been submitted partially or fully to any other University or Institute for the award of this or any other degree or diploma.

Date: **Ms. Reema Aswani**

Assistant Professor

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Date: **Piyush Virmani**
111213

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Abstract

This project deals with the conference management system .As a students or staff members are required to view the details of conference is going to conduct in various colleges or institutions and to attend the conference to gain knowledge from the conferences .Administrator will add the details about the various conferences available to attend for various department students and staff members. User will enter into the system by giving the username and password and selection form will be displayed for the user from that department should be selected and depending up on the department the conference management system will show the details of the conferences in various place using My Sql and JSP. This web application will support every aspect of the conference organization process. This includes paper submission, registration handling of the conference participants, searching, downloading papers, management multiple conferences at a time . System should be applicable to any scientific/technical conference.

CHAPTER 1

What is a Conference ?

A **conference** is a meeting of people who "confer" about a topic. Conferences can be-

- **Academic conference** in science and academic, a formal event where researchers present results, workshops, and other activities.
- **Business conference** organized to discuss business-related matters
- **Conference call** in telecommunications, a "multi-party call"
- **Conference hall** room where conferences are held
- **News conference** an announcement to the press (print, radio, television) with the expectation of questions, about the announced matter, following.
- **Parent-teacher conference** a meeting with a child's teacher to discuss grades and school performance.
- **Peace conference** a diplomatic meeting to end conflict.
- **Settlement conference** a meeting between the plaintiff and the respondent in lawsuit, wherein they try to settle their dispute without proceeding to trial
- **Trade conference or trade fair**, organized like a business conference but with wider participation and providing the opportunity for business people and the general public alike to network and learn more about topics of interest through workshops, viewing whitepaper presentations, and meeting vendors of similar or related services.

Most conferences have one or more keynote speakers who will deliver the keynote speech. These are common at academic and business conferences. The speakers chosen are eminent personalities in the related field and their presence is meant to attract more people to attend the conference. There are various types of conferences:

- A **symposium** is a casual gathering and includes refreshments and entertainment.

- A **seminar** is organized to discuss a particular topic. They are usually educational in nature and attendees are expected to gain new knowledge or skills at the end of the seminar
- A **workshop** is more of a hands-on experience for the participants with demonstrations and activities; the amount of time one speaker addresses the group is limited
- A **round-table** conference is a get-together of peers to exchange thoughts and opinions on a certain topic, usually political or commercial. There are a limited number of participants who sit at a round table, so that each one can face all the others

For the smooth running of a conference, meticulous planning must be carried out well in advance. All important aspects of the conference must be covered, so it is better to maintain a checklist. A back-up plan to handle emergencies is always mandatory. The planning works better when individuals in the planning and administrative committee have clear roles and responsibilities assigned.

Firstly, the purpose of the conference must be clearly understood. The budget needs to be defined. While some companies have sufficiently large conference rooms to accommodate the event, an external venue is most commonly needed. The advantage of using a conference room in a hotel is that accommodation costs might be offered at a discounted rate. One needs to negotiate for the lowest price at several venues that meet the specifications of the conference. eVenues.com offers online search and booking facilities for all types of events, especially conferences.

Once the date, time and venue of the conference are fixed, the availability of all presenters, vendors, attendees and special guests needs to be confirmed. Registration forms have to be sent out and as the responses come in, they must be recorded to get the confirmed number of attendees. This is needed to take care of the logistics for the conference, such as flight bookings, accommodation and car pick-ups for important attendees like the keynote speaker and special guests. Based on the theme of the conference, the invites, agendas and brochures have to be designed. Sponsors' names and logos must be included in these leaflets for advertizing.

CHAPTER 2
INTRODUCTION

A **conference management system** is web-based software that supports the organization of conferences especially scientific conferences. It helps the program chair(s), the conference organizers, the authors and the reviewers in their respective activities.

For faculty and researchers, attending at least one academic conference annually in their fields of interest is inevitable. In such conferences, many stakeholders are involved in various conference tasks. These include, but are not limited to, program committee chair, program committee members (reviewers), general chair, publicity chair, and authors . For a conference organization to be successful, a process should be in place. The process of conference organization consists of many phases, such as call for papers, paper submission, paper review, review discussion, paper re-submission, and author notification . Stakeholders with varying viewpoints, in addition to the complex conference organization process, make organizers, especially those without any prior professional organization skills, feel unenthusiastic about managing an academic conference, and possibly quit the task. With the presence of advanced technology affecting all perspectives of our life, academic conferences are increasing in great number. This is accompanied by an enormous increase in the number of submitted papers. To cope with such large a number of papers and to keep reviewing loads manageable, the number of program committee members has to significantly increase. Consequently, scheduling a face-to-face program committee meeting to review and confer paper submissions is deemed impractical. Based on what is mentioned above, it is vital to develop an online conference management system that facilitates the task of conference organization.

During the last several years conference management systems (CMS) became conference chairs' best friend. As a web based information systems they offer a reliable user-friendly service anywhere at any time. Authors can easily track the status of their papers. Program Committee (PC) members can review them anywhere in the world. But the highest benefit is for PC chairs as the conference management systems not just offer a user-friendly way of communication and data storage, but automation of a series of hard to handle and time

consuming processes like assignment of reviewers to papers, conflict of interest detection, plagiarism detection and etc.

Conference management systems usually handle the entire process of conference management in smaller time-dependent pieces called phases. Some phases can overlap in time while others should be strictly sequential as they use data submitted or generated within previous phase(s). There are activities related to conference organizing (for example finding financial support; arranging halls for session presentations; arranging official dinners and other social activities; and etc.) that are more or less independent on the papers' management so they could be performed in parallel. At the time of assignment all papers have to be already submitted, all reviewers already registered and all bids stated so that the automatic assignment module proposes the best possible assignment taking into account both - selected topics and reviewers' bids. The reviewing and discussion phases can slightly overlap as some papers may already have all reviews done and waiting for discrepancy resolution while other papers may still be waiting for evaluation. The process of assignment of reviewers to papers is probably the most important and challenging one. Its accuracy directly impacts the quality of the conference and its image. For high level conferences, having a low acceptance ratio, it is crucial that papers are evaluated by the most competent in the relevant subject domain reviewers. The assignment could be performed both manually and automatically. Manual assignment is feasible for conferences having a small amount of submitted papers. However when the number of papers and reviewers increases the manual assignment gets less and less accurate due to the constraints it should satisfy – high accuracy, no conflict of interest and not on the last place – load balancing (i.e. all reviewers should evaluate roughly the same number of papers).

2.1 System Perspective

Conference management system manages all administrative and organizational tasks of a conference. The system is a server side web application that uses external relational database management system as a data tier. Every user of this system needs only a web browser to use the system and connect to it. The system will be based on PHP/MySQL

technologies which provide easy and rapid development. This system will also be able to host multiple conferences and their all web based activities.

2.2 System Features

Mandatory features (Conference Management System will provide):

- Single login authentication
- Periodical announcements
- Conference rooms and presentation scheduling
- Web page and announcements
- Registrations
- Multiple conference management

2.3 User Characteristics

Conference Management System is mainly meant to be used by academic staff. However, the system will not require any higher technical knowledge and experience with similar applications. Thus it can be used by general users, too.

2.4 Operating Environment

The system will be able to run on every platform where Web Browser exists. Web server should be reliable. Server uptime is critical around author and reviewer deadlines. Web server and DBMS should be capable of receiving a number of requests simultaneously. System shall possess these features on a server.

2.5 Design and Implementation Constraints

The system will be independent system written in PHP/MySQL languages. Its user interface will be written in HTML and CSS. So the knowledge of these programming languages is required. To handle the administration of DBMS we use PhpMyAdmin. Also, for Web development XAMPP, which includes Apache Tomcat Server, MySQL, database and PHP will be used. Apache Server will be used for development and maintenance of our HTTP server in Windows.

CHAPTER 3

SYSTEM FEATURES

This system provides different features for different user types. There also exist common features for every user type. Some of the basic features this system provides and their functional requirements are described in this section. These features and functional requirements are described in detail to assist the testers and developers that will provide future extensions. Features mentioned in this section will be implemented in the final product.

3.1 Feature 1: Registration

3.1.1. Description

In this phase, the user information is put into database. After registration, users will be able to sign in and have access to system's features. Registration process consists of following step:

- **Providing Personal Data**: In this step, users will have to fill their personal data. Personal data will include the following:

1. **First Name**
2. **Last Name**
3. **Email id**
4. **Contact info**
5. **Password**
6. **Secret Question**

3.1.2. Functional Requirements

REQ-01: Server should not accept an e-mail that was registered before

3.2 Feature 2: Single Login Authentication

3.2.1. Description

This function specifies the signing-in process of the system. E-mail and password will be required for login process.
Single Login Authentication consists of the following:

- **E-mail Field:** Users will need to put their e-mail addresses in this field. E-mail address is used for identification of a user.
- **Password Field:** Users will need to put their passwords in this field. User will be able to change their passwords after logging in.

3.2.2. Functional Requirements

REQ-01: Server should check if the e-mail and password entered by the user are valid or not.

3.3 Feature 3: Conference Request

3.3 Description

In order to request a conference, a user should click “Request New Conference” link on his/her homepage. After the required fields are filled and a conference is requested, the conference is automatically created and put on the user’s homepage. This feature handles this process by asking event information.
Conference Request consists of the following:

- **Required Information:** Following information is requested by this feature:

1. Name of event
2. Description
3. Start Time
4. End Time
5. Date
6. Conference rooms

- **Send Request:** User will send his/her request to the server by clicking "Request Conference" button after filling in the required fields.

3.4 Feature 4: Periodical Announcements

3.4 Description

This feature will include sending reminders to all users of a conference about their responsibilities and conference details. This process will be done by emails periodically sent to users. Conference administrator will be able to manage time intervals of reminders.

This can be done by using SMTP protocol. Almost all of your online activity is made possible through the help of **protocols**—the special networking-software rules and guidelines that allow your computer to link up to networks everywhere so you can shop, read news, send email and more. (Your IP address, which stands for **Internet Protocol**, is just one of many.)

The protocols are vital to your networking activity and, fortunately for you, you don't need to manage, install or even think about them. They're built in to the networking software on your computers. Thank goodness for advanced technology and IT geniuses!

Still, every once in a while, you may find yourself having to learn about a protocol—such as your IP address. That's the case with a term that affects every email you've ever sent out in your entire life—Simple Mail Transfer Protocol, or SMTP. Without it, your emails would go nowhere.

What is SMTP?

SMTP is part of the application layer of the TCP/IP protocol. Using a process called "store and forward," SMTP moves your email on and across networks. It works closely with something called the Mail Transfer Agent (MTA) to send your communication to the right computer and email inbox.

SMTP spells out and directs how your email moves from your computer's MTA to an MTA on another computer, and even several computers. Using that "store and forward" feature mentioned before, the message can move in steps from your computer to its destination. At each step, Simple Mail Transfer Protocol is doing its job. Lucky for us, this all takes place behind the scenes, and we don't need to understand or operate SMTP.

SMTP at work.

SMTP provides a set of codes that simplify the communication of email messages between email servers (the network computer that handles email coming to you and going out). It's a kind of shorthand that allows a server to break up different parts of a message into categories the other server can understand. When you send a message out, it's turned into strings of text that are separated by the code words (or numbers) that identify the purpose of each section.

SMTP provides those codes, and email server software is designed to understand what they mean. As each message travels towards its destination, it sometimes passes through a number of computers as well as their individual MTAs. As it does, it's briefly stored before it moves on to the next computer in the path. Think of it as a letter going through different hands as it winds its way to the right mailbox.

Nothing fancy about it.

SMTP is able to transfer only text—it isn't able to handle fonts, graphics, attachments, etc.—maybe that's why it's called simple. Fortunately, Multipurpose Internet Mail Extensions were created to lend a hand. MIME encodes all the non-text content into plain text. In that transformed format, SMTP is coaxed into transferring the data.

SMTP sometimes stands for "stop."

Most of us don't know this, but our Internet Service Providers typically have a limit to the number of emails we can send out over a certain amount of time. Most of the time, it's limited to a set number per hour or per day.
Each ISP relies on its SMTP to determine (and govern) the email that can be sent out by one connection. (It is a protocol, after all.) For some people who work at home or manage large mailing lists, that could be a problem. After they hit their limit, the ISP will simply stop sending emails. If they think you're a spammer, they might even shut down your account.
That email limit varies by ISP. For example, the typical Comcast Cable Internet customer is limited to 1,000 emails per day. (Their business customers have a limit of 24,000 emails daily.) Verizon and AT&T do it differently. They put a limit of 100 on the number of recipients you can have on one sent email.

3.5 Feature 5: Conference Rooms and Presentation Scheduling

3.5.1. Description

The system should be able to determine the conference rooms and schedule the presentations using the information provided by conference administrator while filling in the conference request form. This process will be done automatically.
Scheduling process consists of the following:

- **Conference Rooms Panel**: User will need to give information about number and capacity of the rooms.
- **Conference Time Panel**: User will need to give information about time requirements of conferences.

3.6 Feature 6: Web Page Announcements

3.6.1. Description

This is the process which will announce all the updates and details about conference. Conference administrators will be able to make announcements for their conferences. Web Page Announcements consist of the following:

- **My Conferences Page:** A user will be able to view all conferences that he/she is participating in in this page.
- **View Conference Page:** Properties, schedule and announcements of a selected conference will be viewed in this page.
- **Make Announcement Page:** A conference administrator will be able to make announcements for a selected conference using this page.

3.6.2. Functional Requirements

REQ-01: Some of the updates will be automatically viewed as the conference is constructed (e.g. papers will be automatically viewed when they are submitted).

3.7 Feature 7: Multiple Conference Management

3.7.1. Description

A user will be able to create and manage multiple conferences. Each conference will have its own page for participants and other necessities. The conference admin will have the same administrative rights in each of these conferences.

Multiple Conference Management will consist of the following:

• **My Conferences Page**: A user will be able to view the conferences s/he created using this page. On this page, by simply clicking on “view conference” link under one of the conferences, s/he will be redirected to that conference’s page and will be able to edit and view its components.

• **Request New Conference**: A user will be able to create a new conference simply by clicking “Request New Conference” link on My Conferences Page. After putting in the necessary information, the conference will be launched and ready to view.

3.7.2. Functional Requirements

REQ-1: All users will be able to create and manage their own conferences.

CHAPTER 4

EXTERNAL INTERFACE REQUIREMENTS

4.1. User Interfaces

User interface will be provided through a web browser as a web site. Thus the user interface will be constrained by the web browser capabilities.

4.2. Hardware Interfaces

256MB RAM, 800 MHz Intel, Pentium or AMD processor, keyboard, mouse.

4.3. Software Interfaces

System will be provided through a web browser, and it will be compatible with most of the widely used ones, if not all. Thus it will be independent from the operating system of the computer on which it runs.

4.4. Communications Interfaces

It is a web application, so constant network communication will be needed to be able to use the system.

CHAPTER 5

OTHER NONFUNCTIONAL REQUIREMENTS

Non-functional Requirements describe quality measures by which a software product must abide. In this section, several non-functional requirements are presented. These requirements cover the performance, security, reliability, availability and maintainability of The Online Conference Management System.

5.1. Performance Requirements

Performance of the system depends on the response time and the speed of the data submission. The response time of the system is direct and the application is considered real-time. System should have a fast response time, which depends on the efficiency of implemented algorithm. The first version of the system will have a limited file submission speed; that is why there will be no need for large network. However, it may grow up depending on the increase in usage.

5.2. Safety Requirements

System has to check :

- ✓ If HTML content is syntactically well-formed,
- ✓ if Web forms with the services processing form input are consistent,
- ✓ referential integrity of hyper-links in both static and dynamically generated content,
- ✓ statically safe binding of the code of session operations to variables defined with session scope.

In case of error it should provide users with appropriate help messages.

5.3. Security Requirements

For security of the system the technique known as database replication should be used so that all the important data should be kept safe. In case of crash, the system should be able to backup and recover the data.

5.4. Software Quality Attributes

The system will have a simple and user friendly graphical interface. Users will be able to understand and use all the features of the website easily. Any action will be performed with just a few clicks.

5.5. Other Requirements – GNU GPL License

The project is released under the GNU General Public License. The philosophy of this license implies some basic principles which apply to the project.
The GPL is a free software license, and therefore it permits people to use and even redistribute the software without being required to pay anyone a fee for doing so.

- The freedom to run the program, for any purpose.
- The freedom to study how the program works, and adapt it to your needs.

Access to the source code is a precondition for this.

- The freedom to redistribute copies so you can help your neighbour.
- The freedom to improve the program, and release your improvements to the public, so that the whole community benefits. Access to the source code is a precondition for this.

CHAPTER 6

Software Systems Attributes

The following section details out Software Systems Attributes for Conference Management Portal.

6.1 High Availability

High availability refers to a system or component that is continuously operational for a desirably long length of time. It is an ability to withstand failure of individual components. Conference Management Portal should be highly available. To make CMP to be highly available, it is essential that all components like hardware, network, system software, and application software are operational all the time. If the system is not available for all the time, user loses his interest and avoids using the service again presuming that it may waste user's time in accessing the service without any result.

6.2 Scalability

Scalability is the ability of a system, network, or process, to handle growing amount of load in a CMPable manner by means of deploying additional resources, if required, without any noticeable degradation of its performance. Conference Management Portal should be able to cope up with significant increase in load or page requests, without noticeable degradation in performance, by means of deploying additional hardware but without making any changes in the application software. Scalability should be addressed at each and every component level.

6.3 Reliability

Software Reliability is an important to attribute of software quality. Reliability is the probability of failure-free software operation for a specified period of time in a specified environment. Due to any human interventions, the system should not behave abnormally. Software failures may be due to errors, ambiguities, oversights or misinterpretation of the specification that the software is supposed to satisfy, carelessness or incompetence in writing code, inadequate testing, incorrect or

unexpected usage of the software or other unforeseen problems. It is expected that there shall not be any bug while operating Conference Management Portal and the system shall be tested on end cases to offer user a quality and reliable package.

6.4 Usability

Usability is a quality attribute that assesses how easy user interfaces are to use. Compromising user friendliness leads to loss of productivity. Conference Management Portal should be easy to use. The underlying technology should be transparent to users, so they can concentrate on tasks at hand. Screens should be designed for ease of use by non-technical users who do not have any computer knowledge. The GUI design shall be intuitive and task-based without any superfluous design.

Usability is defined by 5 quality components :-

- Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?
- Efficiency: Once users have learned the design, how quickly can they perform tasks?
- Memorability: When users return to the design after a period of not using it, how easily can they re establish proficiency?
- Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
- Satisfaction: How pleasant is it to use the design?

6.5 Portability

Portability is the usability of the same software in different environments. The software will be hosted / installed in the environment as decided by DAC later on.

6.6 Extensibility

Extensibility refers the ability to add new functionality without requiring major changes to the existing code. Conference Management Portal should be extensible in the sense that new features can be easily added or plugged-in without any significant changes to the existing system.

6.7 Maintainability

Software maintenance is the modification of a software product after delivery to correct faults, to improve performance or other attributes.

As per ISO/IEC 14764 Maintenance activities can be categorized as :-

- Corrective maintenance: Reactive modification of a software product performed after delivery to correct discovered problems.
- Adaptive maintenance: Modification of a software product performed after delivery to keep a software product usable in a changed or changing environment.
- Perfective maintenance: Modification of a software product after delivery to improve performance or maintainability.
- Preventive maintenance: Modification of a software product after delivery to detect and correct latent faults in the software product before these become effective faults.

Maintainability is defined as the ease with which a software system or component can be modified to correct faults, improve performance or other attributes, or adapt to a changed environment.

6.8 Accessibility

Accessibility is a general term used to describe the degree to which a product, device, service, or environment is available to as many people as possible. Accessibility is often used to focus on people with disabilities or special needs and their right of access to entities, often through use of assistive technology. Website accessibility is important design consideration. Website should be accessible to all, irrespective to

the physical compatibility of the user, technical expertise, limitations of the devices he is using for accessing website, speed of connectivity, language he knows etc.

Conference Management Portal should have wide reach. The accessibility with respect to these aspects is also an important design consideration. For making Conference Management Portal accessible, it should be made Web Accessibility Guidelines compliant. Web accessibility guidelines are published by the W3C's Web Accessibility Initiative.

6.9 Security

The services of conferences which will be accessible from Conference Management Portal have been categorized as information services, transaction services and workflow services. Most of the information for information services will be in public domain. Security requirements of the transaction based services and workflow based services are high. Adequate safety measures would be incorporated during development stage itself to prevent vulnerabilities and build secured code for these services on Conference Management Portal. The system should have protection against unauthorized creation / modification of data and unauthorized viewing of data. System should demonstrate awareness of the codes of practice provided by ISO/IEC .

CHAPTER 7

Design Constraints

7.1 Design Objectives

The focus of DAP is on the seamless, anywhere and anytime delivery of prioritized services. The solution will be designed using the experiences from similar initiatives executed successfully within the university. The scope and magnitude of the DAP Project is likely to impact the service delivery with an overarching effect on the current fragmented solutions that have been put in place by various departments.

The following section outlines these objectives from a holistic perspective, keeping in view the requirements of all the constraints within which the proposed solution would need to operate. The design objectives for the proposed technology solution in DAP are :

1. Adopt service oriented architecture
2. Develop and expose business functionality as services
3. Provide web based user interface
4. Support multiple access devices such as desktop computers, Mobile phones, PDA, etc.
5. Ensure confidentiality of user data
6. Enable easy discovery of information

With the above objective in mind, the following section articulates the design considerations that have to be kept in mind during the design of the proposed technology solution.

7.2 Design Considerations

7.2.1 Quality of Code

- Portal should use correct Doctype
- Portal should use a Character set
- Portal should use Valid (X)HTML
- Portal should use Valid CSS
- Portal should not use CSS hacks
- Portal should not use unnecessary classes or ids
- Code should be well structured
- Portal should not have any broken links.
- Portal should have good performance in terms of speed/page size
- Portal should not have any JavaScript errors

7.2.2 Accessibility for users

- Portal should use relative units rather than absolute units for text size
- Any aspects of the layout of the portal should not break if font size is increased or decreased
- Portal should use visible skip menus
- Portal should use accessible forms
- Portal should use accessible tables
- There should be sufficient colour brightness/contrasts
- For critical information other mechanisms should also be used to draw attention of the user in addition to color
- There should not be any delayed responsiveness for dropdown menus
- Links should be descriptive

7.2.3 Accessibility for devices

- Portal should work acceptably across modern and older browsers
- Content should be accessible with CSS switched off or not supported
- Content should be accessible with images switched off or not supported
- Portal should work in text browsers
- Portal should work well when printed
- Portal should work well in common hand held devices
- Portal should include detailed metadata
- Portal should work well in a range of browser window sizes

CHAPTER 8

Performance Requirements

Performance is defined as the responsiveness. Conference Management Portal should manage the user load and response time. Loading of static pages of the web portal should not take much time and page should be rendered immediately within few seconds. It will take less time (in seconds) for database access/update transactions as well. However, for report generation and query retrieval it may take sufficiently more time depending on data volume and complexity of queries. The response time for average network connectivity speed should be as follows:

- 90% of the responses for static web pages should be within 2 seconds.
- 5-10 second: For user operation on data (for e.g. sorting of data in a column) or (5 to
- 50 records per page up to max of 100,000 records)
- 10-20 second: For user awaiting response from the system upon executing a
- transaction (for e.g. a query/update).
- 1 minute – Unacceptable response time

It is essential that the performance of the portal must not deteriorate with increase in volume of data or number of end users. The proposed architecture should take care of the application level performance requirement by load balancing and caching technique. Size of pages should be such that even on low bandwidth internet connections response time should be satisfactory. The enterprise level performance should be taken care of by restricting the number of users to consume various services by defining an access control mechanism. However, regular performance tuning initiatives like purging and archiving of data are to be adopted to ensure optimum performance.

CHAPTER 9

Portal Functionality Requirements

In addition to user and application specific functionalities, Conference Management Portal should provide following portal functionalities-

- **Metadata Synchronization** – Conference Management Portal is required to comply with defined standard for content taxonomy, metadata and master data
- **Full Text Search** – Provide facility to search the portal content based on full text search approach
- **Metadata based search** – provide metadata based search facility to search Conference Management Portal content
- **Information Browser** – provide explorer type interface for browsing all information, which is published on the Conference Management Portal
- **Personalization** – This includes user specific customization such as display themes, customization on home page etc.
- **Portal Usage Reports** – Provide various reports related to usage of portal. This will help to analyze user behavior and content of interest to users
- **Self Service** – This includes user registration, user profile management. Certain services and functionality may be provided only to registered users
- **Notifications** – Registered users should be able to subscribe to specified type of content categories. Whenever any content of subscribed categories gets published, subscribed users should be notified by means of email
- **Portal Administration** – Administration functionality for user management and application administration should be available

CHAPTER 10

APPENDIX

10.1 Appendix A: Glossary

- **PDF** (Portable Document Format): is a file format created by Adobe Systems in 1993 for document exchange.
- **PHP** (Personal Home Page / Hypertext Preprocessor) is an open source general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages.
- **MySQL** (My Structured Query Language) is the world's most used open source relational database management system(RDBMS) as of 2008 that runs as a server providing multi-user access to a number of databases.
- **CSS** (Cascading Style Sheets) is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language.
- **HTML** (HyperTextMarkup Language) is the main markup language for displaying web pages and other information that can be displayed in a web browser.
- **XAMPP** is a free and open source cross-platform web server solution stack package, consisting mainly of the Apache HTTP Server, MySQL database, and interpreters for scripts written in the PHP and Perl programming languages.
- **The Apache HTTP Server**, commonly referred to as Apache, is a web server software notable for playing a key role in the initial growth of the World Wide Web.
- **PhpMyAdmin** is a free and open source tool written in PHP intended to handle the administration of MySQL with the use of a Web browser
- **CMS** (Conference Management System): is web-based software that supports the organization of scientific conferences.
- **DBMS** (Database Management System): is a set of programs that enables you to store, modify, and extract information from a database, it also provides users with tools to add, delete, access, modify, and analyze data stored in one location.

10.2 System Requirements

The following is an overview on the software and hardware requirements for a successful installation of the Drupal Toolkit. In addition, advice is given on software and hardware recommendations as well as a notice on the important topic of disk usage.

10.2.1 Software

The Drupal Toolkit requires Drupal and all its dependencies. Currently, the Drupal Toolkit is only developed for Drupal 6. There have been some discussions related to porting it to Drupal 7, however, there is no timeline in place for development.

	Required	Recommended
Web Server	HTTP	Apache HTTP
Drupal	7	6.25
PHP	5.2	5.2
MySQL	5.1	5.5+
Apache Solr	1.2	3.3+
Java	1.6	1.6+

Note: The user should have good knowledge on the operating system on which these softwares are going to be installed. Also the user should have admin(root) permission to install otherwise there is a chance to run into permission problems.

PHP

PHP is required for Drupal, however for the Drupal Toolkit, PHP must be complied with support for cURL, DomDocument, and SimpleXML. Such functionality is necessary for making external HTTP requests to OAI and NCIP servers and handling XML responses.

HTTP

As of now, all Drupal Toolkit development has used Apache HTTP as a web server. It is defiantly possible to run the Drupal Toolkit on other servers, such as Lighttpd, Nginx, or even Microsoft IIS. However, the use of such has not been tested by our developers.

Solr

In addition to Drupal, the toolkit also *requires* Apache Solr for indexing, searching, and faceting as well as other features.

MySQL

Although Drupal can work with many other database systems, such as PostgreSQL, M*ySQL is* strongly recommended *for* the Drupal Toolkit. Certain functionality with the Drupal Toolkit will only work with MySQL, such as the CSV import process for the OAI Harvester, which uses a MySQL-specific command to increase performance.

Java

Java is required for Apache Solr. Therefore, to use the indexing, searching, and browsing functionality of the Drupal Tooklit, this must be installed. Moreover, we recommend installing the official Java provided by Sun or Oracle.

JSP

Instead of *static* contents that are indifferent, *Java Servlet* was introduced to generate *dynamic* web contents that are customized according to users' requests (e.g., in response to queries and search requests). However, it is a pain to use a Servlet to produce a presentable HTML page (via the `out.prinltn()` programming statements). It is even worse to maintain or modify that HTML page produced. Programmers, who wrote the servlet, may not be a good graphic designer, while a graphic designer does not understand Java programming.

Java Server Pages (JSP) is a *complimentary* technology to *Java Servlet* which facilitates the *mixing* of dynamic and static web contents. JSP is Java's answer to the popular Microsoft's *Active Server Pages* (ASP). JSP, like ASP, provides a elegant way to mix static and dynamic contents. The main page is written in regular HTML, while special tags are provided to insert pieces of Java programming codes.

The *business programming logic* and the *presentation* are cleanly separated. This allows the programmers to focus on the business logic, while the web designer to concentrate on the presentation.

JSP is based on Servlet. In fact, we shall see later that a JSP page is internally translated into a Java servlet. We shall also explain later that "***Servlet is HTML inside Java***", while "***JSP is Java inside HTML***". Whatever you can't do in servlet, you can't do in JSP. JSP makes the creation and maintenance of dynamic HTML pages much easier than servlet. JSP is more convenience than servlet for dealing with the presentation, not more powerful.

JSP is meant to *compliment* Servlet, not a replacement. In a *Model-View-Control* (MVC) design, servlets are used for the controller, which involves complex programming logic. JSPs are used for the view, which deals with presentation. The model could be implemented using JavaBeans or Enterprise JavaBeans (EJB) which may interface with a database.

Advantages of JSP

- Separation of static and dynamic contents: The dynamic contents are generated via programming logic and inserted into the static template. This greatly simplifies the creation and maintenance of web contents.
- Reuse of components and tag libraries: The dynamic contents can be provided by re-usable components such as JavaBean, Enterprise JavaBean (EJB) and tag libraries - you do not have to re-inventing the wheels.
- Java's power and portability.

Linux

The use of Linux is *highly recommended* and all examples within this guide are in respect to a Linux operating system. Although not necessary, the software environment used to develop, install, configure, and test the Drupal Toolkit has been Linux-based.

Other Operating Systems

In our opinion, the Drupal Toolkit software does work on Mac OS and should work on Windows systems, however, the instructions on how to build such an environment and the support for maintaining such and environment are beyond the scope of this guide. If you choose to use any other operating system, use your own judgement and experience to make the necessary adjustments to have a working environment. Also note that installation and configuration on other operating systems may be difficult or impossible to accomplish.

Other Software

Finally, our developers recommend downloading Wget in order to use the included BASH scripts, installing Git for obvious reasons, and using Drush because it saves time... and mouse clicks!

10.2.2 Hardware

The Drupal Toolkit requires a lot of processing power. It can easily consume a lot of system resources, particularly during metadata harvesting, indexing of records in Solr, and node generation. Although we are not yet sure exactly what hardware requirements are necessary, we can provide some helpful information to guide you based on our own test systems.

Components	Minimal Recommendation
Server	2 GHz Dual-core
Architecture and Operating System	64-bit
Memory (RAM)	4 GB
Hard Drive	120 GB

10.2.2.1 Disk Space

If you plan to harvest large sets of metadata records, you may require a significantly large amount of available disk space. In this case, be mindful that the disk space required is mostly determined by the size and number of records harvested and plan to have available at least five times the amount of disk space necessary to store the metadata records you plan to harvest in plain text.

The amount of disk space necessary during the harvesting process is up to three times the size of the disk space required to store the harvested records. This is primarily determined by the harvester's settings since both (1) caching XML responses from a repository, and (2) delaying the necessary SQL `INSERT` statements by using CSV files and the `LOAD DATA INFILE` statement after harvesting for metadata storage and node generation, effectively double the disk space required. That is why, put together, choosing both settings require three times as much disk space. In addition to that, during the indexing process, the need to optimize the Solr index also doubles the size of the entire index, effectively adding to the disk space requirement.

Disk Usage Example

Consider the following example. Our demo sites harvests over around millions of XC records. The total size of the XC records in plain text is around 12 GB. So, we estimate that we would need at least 60 GB of space for successful harvesting. Here's the breakdown:

- 12 GB for the OAI response cache
- 10 GB for the MySQL CSV load files used to delay SQL inserts
- 10 GB for the MySQL database
- 14 GB for the Solr index
- 14 GB for the Solr index optimization

It is important to note that this is the peak usage requirements. Once the harvesting, indexing, and node generation processes are complete, you can reduce the disk space used by simply deleting the OAI and SQL caches. The disk space used by Solr's optimization process will reduce automatically on its own when the process is complete.

Using Multiple Drives or Partitions

If you have multiple drives or partitions available, for example, one larger and one smaller, as is the case with many servers, we suggest that you install Solr on the larger disk. This will keep it separate from the Drupal instance and web server. You may also want to do this for your MySQL data directory and Drupal files directory.

10.3 Functional Requirements

- Drupal 7CMS.
- Clean Contemporary design that will create interest in renewing with or joining NARGS. We feel that our budget will not allow for much custom theming. We are open to purchasing a responsive theme and having the vendor customize it as needed. We are open to your recommendations regarding theming.
- Sufficient server resources to accommodate storage and bandwidth needs (historically based).
- SSL certificate, credit card payment gateway.
- Ability for members to join NARGS and renew membership online and for NARGS personnel accepting phone and mail orders. Drupal Commerce is preferred over Ubercart.
- WYSIWYG editor.
- Simplified content entry, only displaying fields required by user role.
- Rotating slideshow on front page.
- Queueing up content for selective displays, like the front page slideshow (Nodequeue).

- Migrate the membership database from FileMaker to the Drupal database. The Executive Secretary must be able to manage membership on the site; including processing new memberships and renewals; producing receipts; producing reports based on selectable criteria; producing reports for address labels; and automatically mailing out renewal notices.
- Members will have permission to manage their own user profiles. User profiles are to remain private. i.e. only the member and administrators will be able to view profiles.
- Facebook and Twitter integration.
- Accommodate the existing non-Drupal custom Seed Exchange application (PHP/MySQL).
- Clearly explain who we are, what we do, membership advantages, how to join.
- Incorporate existing Tiki-wiki pages including a rock garden encyclopedia, plant of the month, photo gallery, book of the month pages and articles into Drupal.
- Incorporate existing SMF forum into Drupal Forum.
- Blogs or links to blogs. Some members maintain gardening blogs elsewhere that we would like to showcase.
- Multiple roles with members able to view member only content, comment on content and submit content(such as events, news, newsletters, articles, blog posts) on the Drupal site. Further roles would allow content approval, board member access and administrator access.
- Open all external links in a new tab.
- FAQ.
- Enhanced search, preferably Google or SOLR.
- Ability to send emails through the site to leadership or select user groups.
- Basic views providing basic user and content management and reporting. Create any views needed for member management and reporting and any other views as needed.

- Promote Rock Garden Quarterly. Posting by editor; member access to archived back issues; links to current issue; non-member access to some teaser content; cumulative index. Possible e-commerce for non-member access to issues.
- Promote annual general meeting and winter study weekends; third party registration.
- Lists of officers, committees, awards and contacts for NARGS and contacts for member chapters, with no exposed emails.
- Chapter pages. Many member chapters without a web site require a page, hosted and maintained at nargs.org, while others require links to their sites. There will also be links to chapter newsletters.
- Retain ordering books through amazon.com; NARGS receives credit for these purchases.
- Events calendar (with RSS feed).
- Bulletin Board to replace current News page.
- Ability to archive and access archived content.
- Implement best of class SEO modules. Implement Google Analytics, including segmentation by user login.
- Implement webmaster tools across search engines.
- Automatically submit site map to search engines when content is added/changed.
- User-readable sitemap.
- Implement spam blocking technique, suchasCMPtcha or Mollom.
- Performance enhancements including caching, APC, Varnish.
- Training: Vendor will train Sys Admin. Sys Admin will train other volunteers.
- Vendor will be available to support and answer questions from Sys Admin.

10.4 Server Requirements

Apache

Apache is the most commonly used web server for Drupal. Drupal will work on Apache 2.x hosted on UNIX/Linux, OS X, or Windows. The majority of Drupal development and deployment is done on Apache, so there is more community experience and testing performed on Apache than on other web servers. Drupal 7 and 6 will likely work on Apache 1.3. You can use the Apache 'mod_rewrite' extension to allow for clean URLs. The Apache Virtual host configuration must contain the directive Allow Override All to allow Drupal's .htaccess file to be used.

Ngnix

Nginx is a commonly used web server that focuses on high concurrency, performance and low memory usage. Drupal will work on Nginx legacy versions (0.7.x, 0.8.x, 1.0.x), stable 1.2.x versions, and development 1.3.x versions hosted on UNIX/Linux, OS X, or Windows. Nginx is a popular alternative to Apache, so there is also significant community experience and testing performed on Nginx. For information on enabling clean URLs, see Clean URLs with NGINX.

Microsoft IIS

Microsoft IIS is a web server and set of feature extension modules for use with Microsoft Windows. Drupal core will work with IIS 5, IIS 6, or IIS 7 if PHP is configured correctly. To achieve clean URLs you may need to use a third party product. For IIS 7 you can use the Microsoft URL Rewrite Module or a third party solution. On IIS 7 Drupal requires Windows 2008 Server SP2 or later for fastCGI support.

10.5 Hosting Requirements

10.5.1 *Disk Space: 15 Megabytes*

If you're not sure how much 15 Megabytes is, it's OK, just know it's not much at all. In fact, all of InMotion Hosting's shared accounts include unlimited disk space, so there's no need to worry about this system requirement.

Our VPS Hosting and Dedicated Hosting accounts include more than enough disk space to host a Drupal Website. We'd like to show you a graph to compare the amount of diskspace our hosting plans include compared to the disk space required by Drupal, but it's impossible. The 15MB required by Drupal wouldn't even show as a blip on the radar when compared to the millions of MBs of diskspace that we offer!

10.5.2Web server: Apache 1.3, Apache 2.x, Microsoft IIS

You don't need three different web servers to host Drupal. You can use either a version of Apache (version 1.3 or any of the version 2's) or Microsoft IIS. InMotion Hosting's servers run off the CentOS Linux operating system and uses the cPanel control panel. We use the Apache web server, and all of our latest servers are running a variation of Apache 2.x.

10.5.3 Database server: MySQL

The default installation of Drupal requires a MySQL database. While Drupal 7 is the latest version of Drupal, we've listed below the MySQL requirements for several different versions of Drupal:

Drupal 5	*Drupal 6*	*Drupal 7*
MySQL 3.23.17 or higher MySQL 4.1 or higher	PostgreSQL 7.1 MySQL 5.0.15 or higher with PDO	SQLite 3.3.7 or higher

In Motion Hosting runs a version of MySQL 5 that is compatible with all versions of Drupal! If you're more familiar with Microsoft server technologies (we do not run any Microsoft servers), you can use MS SQL, however an additional Drupal module is required for that. Oracle can also be used with Drupal, but again you'll need to use an extension to get it to work properly.

10.5.4 PHP

Just like Drupal's requirement for MySQL, different versions of Drupal require different versions of PHP. We've outlined them below:

Drupal 5	*Drupal 6*	*Drupal 7*	*Drupal8*
PHP 4.4.0 - 5.2.x (5.2 recommended, 5.3 not supported)	PHP 4.4.0 or higher (5.2 recommended)	MPHP 5.2.5 or higher (5.3 recommended)	PHP 5.3.

Not only does InMotion Hosting meet Drupal's minimum PHP requirements, our shared servers include a custom cPanel feature that allows you to switch between versions of PHP! You can easily switch between PHP 5.2, 5.3 and 5.4. If you choose VPS Hosting or Dedicated Hosting, our System Administration team can custom configure PHP for you, installing any available version that you would like

CHAPTER 11
CONFERENCE MANAGEMENT DIAGRAMS

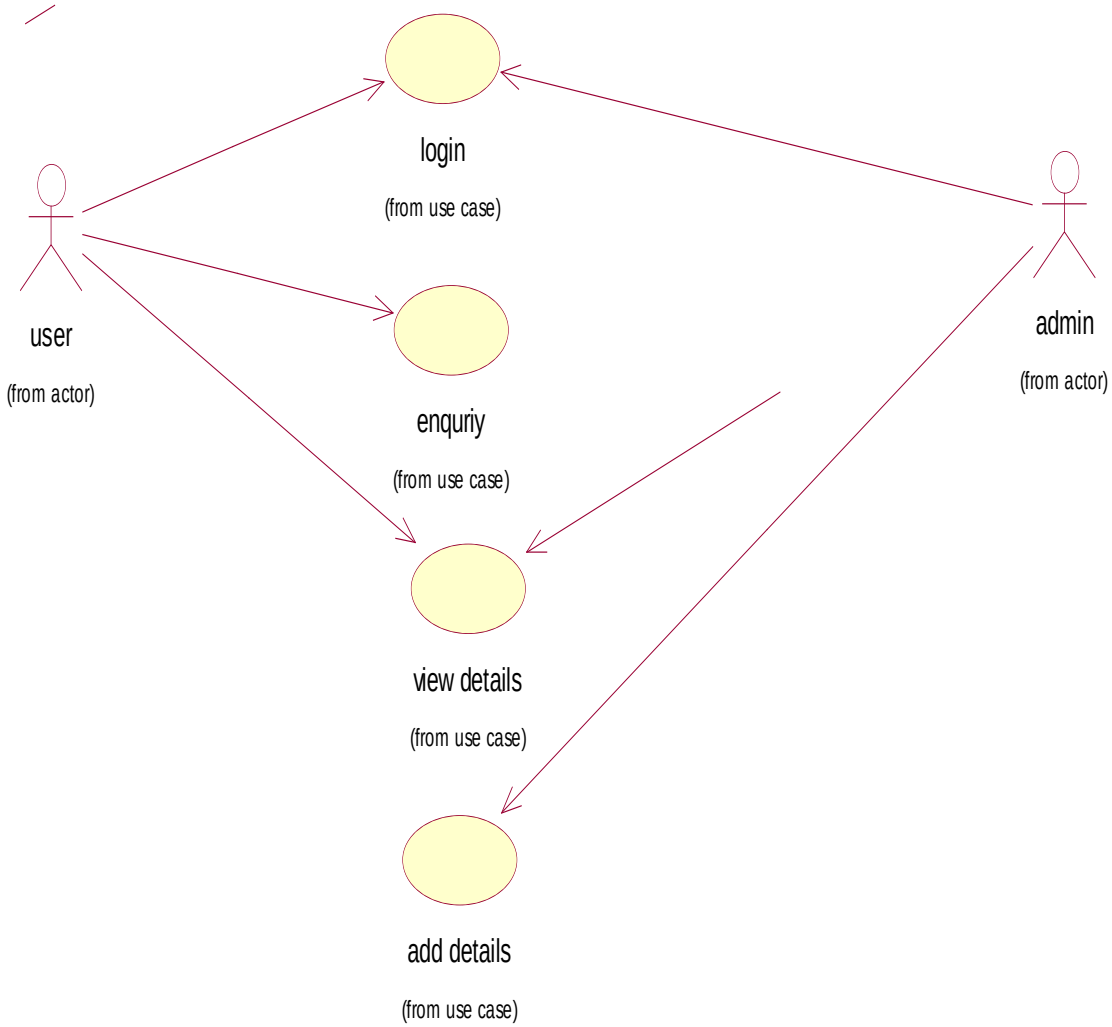
11.1 :USE CASE DIAGRAM:

A use case diagram is a graphic depiction of the interactions among the elements of a system.

A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. In this context, the term "system" refers to something being developed or operated, such as a mail-order product sales and service WEb site. Use case diagrams are employed in Uml (Unified Modeling Language), a standard notation for the modeling of real-world objects and systems.

System objectives can include planning overall requirements, validating a hardware design, testing and debugging a software product under development, creating an online help reference, or performing a consumer-service-oriented task. For example, use cases in a product sales environment would include item ordering, catalog updating, payment processing, and customer relations. A use case diagram contains four components.

- The boundary, which defines the system of interest in relation to the world around it.
- The actors, usually individuals involved with the system defined according to their roles.
- The use cases, which are the specific roles played by the actors within and around the system.
- The relationships between and among the actors and the use cases.


login
(from use case)
user
(from actor)
admin
(from actor)
enquriy
(from use case)
view details
(from use case)
add details
(from use case)

11.2 :CLASS DIAGRAM:

A class diagram is an illustration of the relationships and source code dependencies among classes in the Unified Modeling Language (UML). In this context, a class defines the methods and variables in an object, which is a specific entity in a program or the unit of code representing that entity. Class diagrams are useful in all forms of object-oriented programming (OOP). The concept is several years old but has been refined as OOP modeling paradigms have evolved.

In a class diagram, the classes are arranged in groups that share common characteristics. A class diagram resembles a flowchart in which classes are portrayed as boxes, each box having three rectangles inside. The top rectangle contains the name of the class; the middle rectangle contains the attributes of the class; the lower rectangle contains the methods, also called operations, of the class. Lines, which may have arrows at one or both ends, connect the boxes. These lines define the relationships, also called associations, between the classes.

11.3 :ACTIVITY DIAGRAM:

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams are intended to model both computational and organisational processes (i.e. workflows). Activity diagrams show the overall flow of control.

Activity diagrams are constructed from a limited number of shapes, connected with arrows. The most important shape types:

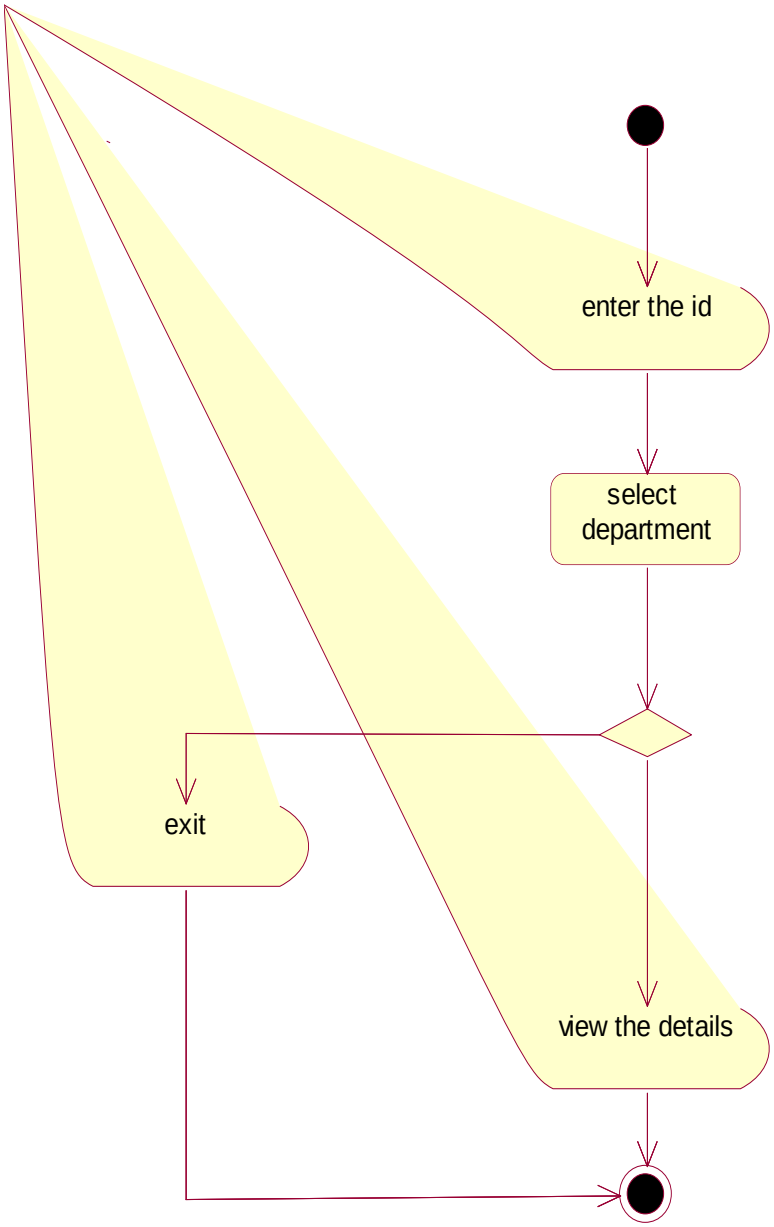
- *rounded rectangles* represent *actions*;
- *diamonds* represent *decisions*;
- *bars* represent the start (*split*) or end (*join*) of concurrent activities;
- a *black circle* represents the start (*initial state*) of the workflow;
- an *encircled black circle* represents the end (*final state*).

Arrows run from the start towards the end and represent the order in which activities happen.

Activity diagrams may be regarded as a form of flowchart. Typical flowchart techniques lack constructs for expressing concurrency. However, the join and split symbols in activity diagrams only resolve this for simple cases; the meaning of the model is not clear when they are arbitrarily combined with decisions or loops.

While in UML 1.x, activity diagrams were a specialized form of state diagrams, in UML 2.x, the activity diagrams were reformalized to be based on Petri net-like semantics, increasing the scope of situations that can be modeled using activity diagrams.[1] These changes cause many UML 1.x activity diagrams to be interpreted differently in UML 2.x.

UML activity diagrams in version 2.x can be used in various domains, i.e. in design of embedded systems. It is possible to verify such a specification using model checking technique.

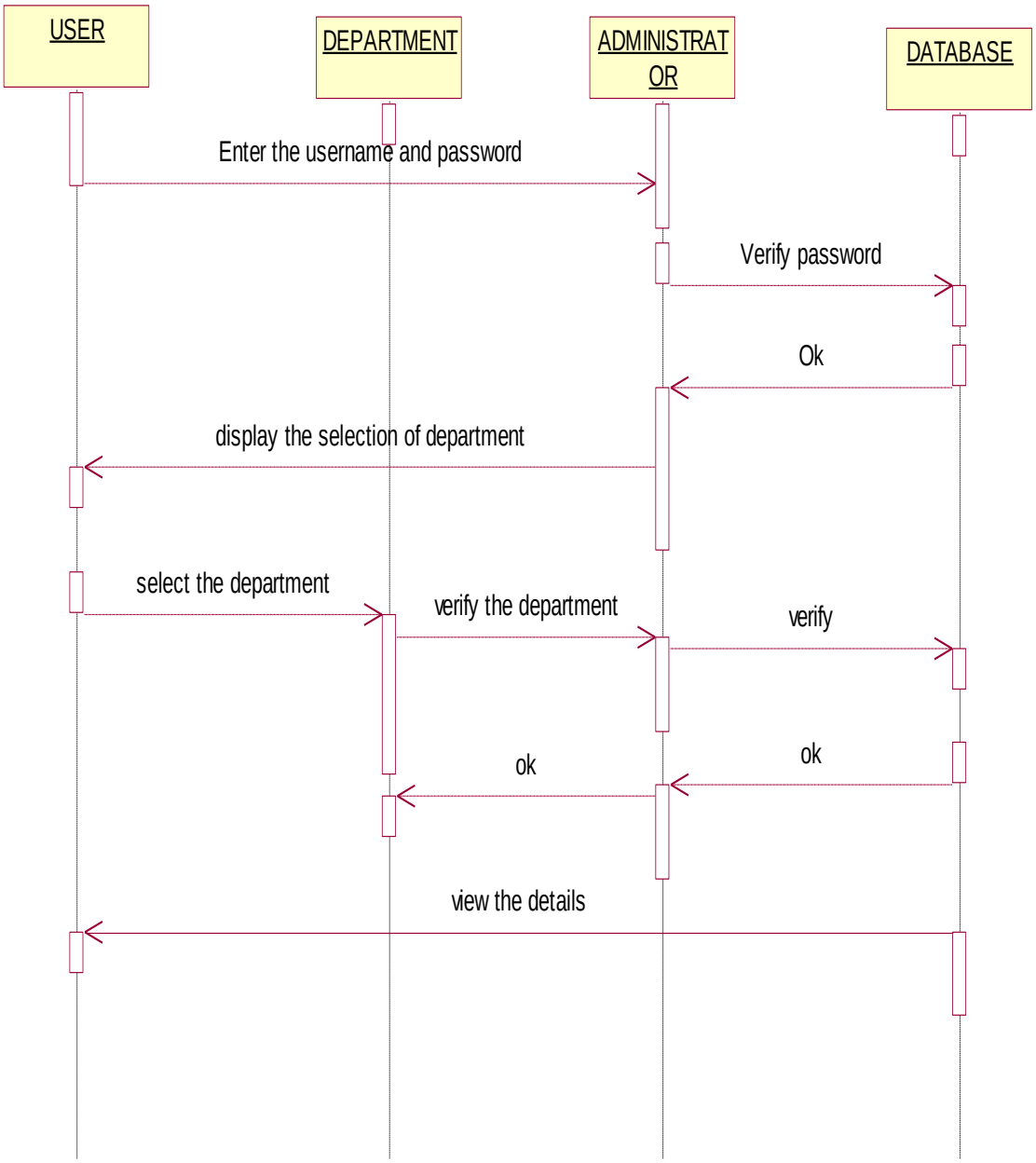

enter the id
select department
exit
view the details

11.4 :SEQUENCE DIAGRAM:

A **Sequence diagram** is an interaction diagram that shows how processes operate with one another and what is their order. It is a construct of a Message Sequence Chart. A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are typically associated with use case realizations in the Logical View of the system under development. Sequence diagrams are sometimes called **event diagrams** or **event scenarios**.

A sequence diagram shows, as parallel vertical lines (*lifelines*), different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner

Object interactions usually begin at the top of a diagram and end at the bottom. In a sequence diagram, object interaction occurs through messages on the vertical and horizontal dimensions and are designated by horizontal arrows and message names. The initial sequence diagram message begins at the top and is located on the diagram's left side. Subsequent messages are added just below previous messages. Sequence diagram messages may be subdivided by type, based on functionality.

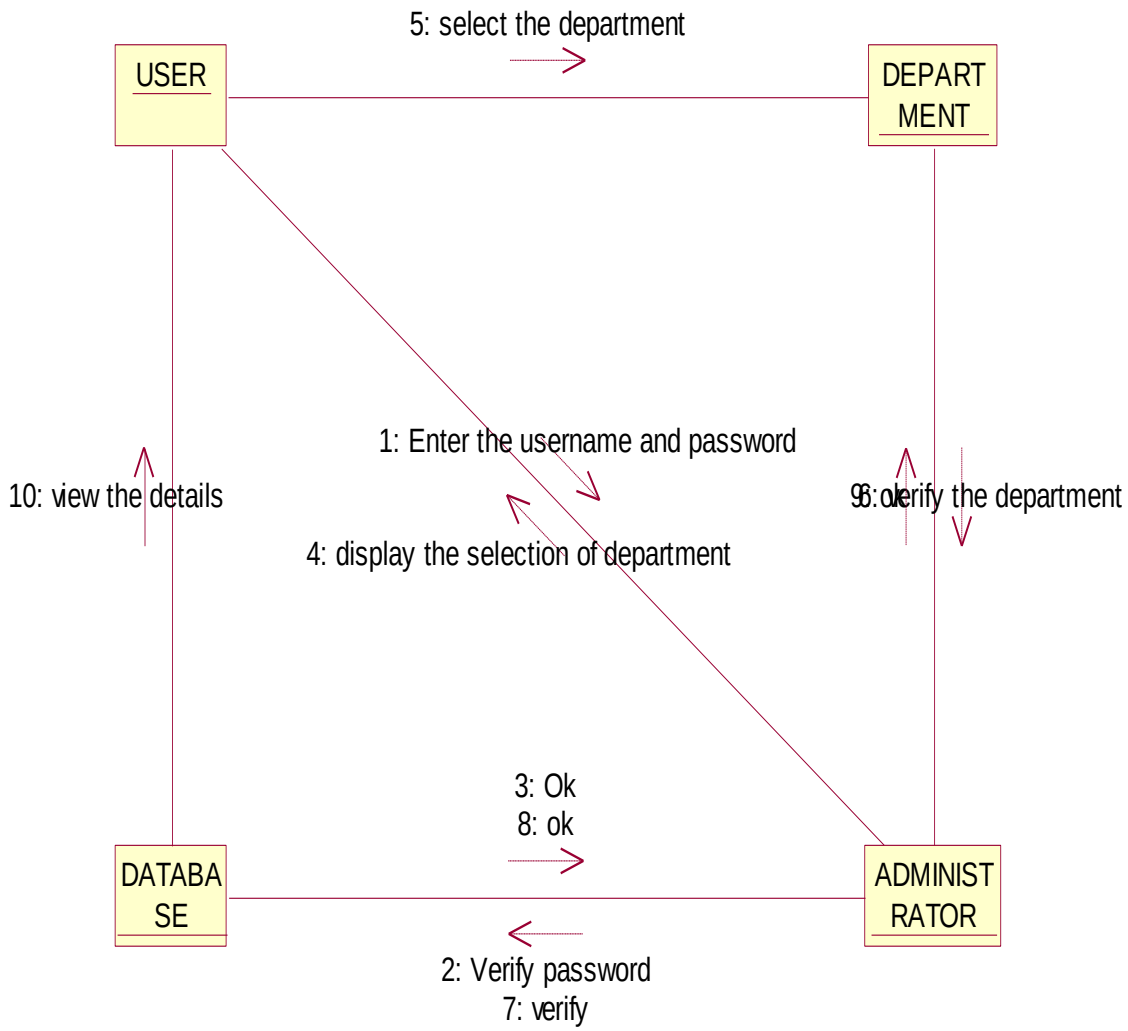

USER
DEPARTMENT
ADMINISTRAT OR
DATABASE
Enter the username and password
Verify password
Ok
display the selection of department
select the department
verify the department
verify
ok
ok
view the details

11.5 :COLLABRATION DIAGRAM:

A collaboration diagram, also called a communication diagram or interaction diagram, is an illustration of the relationships and interactions among software objects in the Unified Modeling Language (UML). The concept is more than a decade old although it has been refined as modeling paradigms have evolved.

A collaboration diagram resembles a flowchart that portrays the roles, functionality and behavior of individual objects as well as the overall operation of the system in real time. Objects are shown as rectangles with naming labels inside. These labels are preceded by colons and may be underlined. The relationships between the objects are shown as lines connecting the rectangles. The messages between objects are shown as arrows connecting the relevant rectangles along with labels that define the message sequencing.

Collaboration diagrams are best suited to the portrayal of simple interactions among relatively small numbers of objects. As the number of objects and messages grows, a collaboration diagram can become difficult to read. Several vendors offer software for creating and editing collaboration diagrams.


5: select the department
USER
DEPART MENT
1: Enter the username and password
10: view the details
9: verify the department
4: display the selection of department
3: Ok
8: ok
DATABA SE
ADMINIST RATOR
2: Verify password
7: verify

SNAPSHOTS

Figure 1:Registration Page

Figure 2:Login Page

Figure 3:User Side

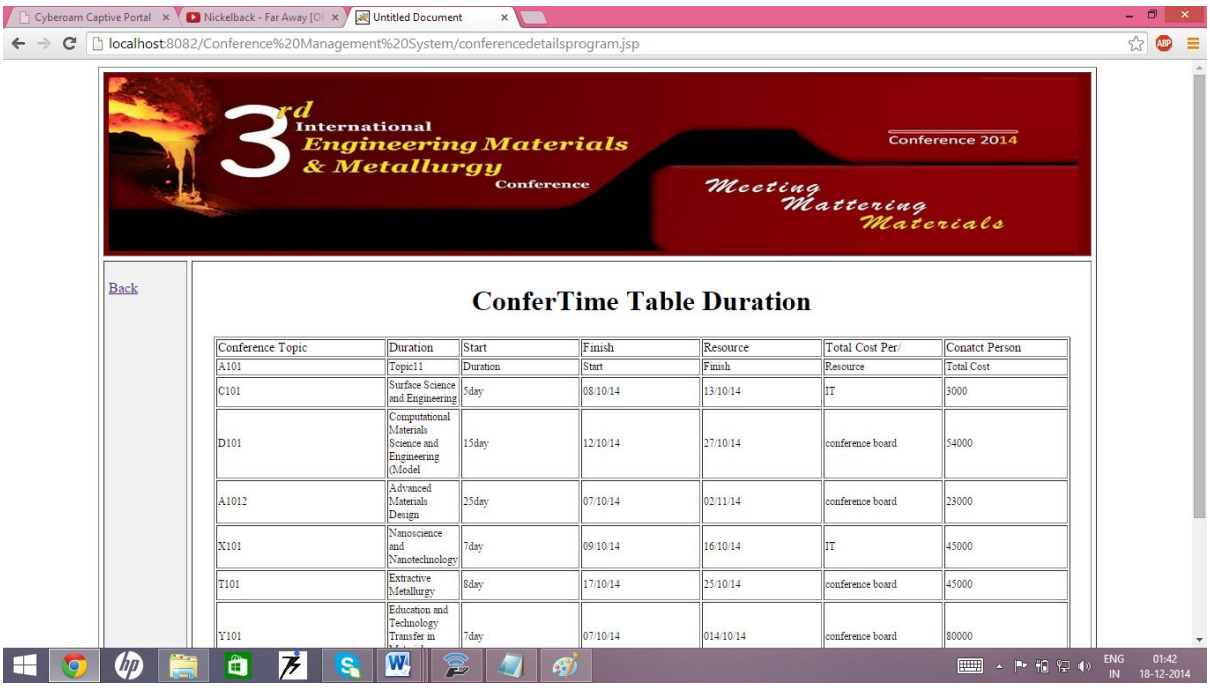


Figure 4:Conference Time Table

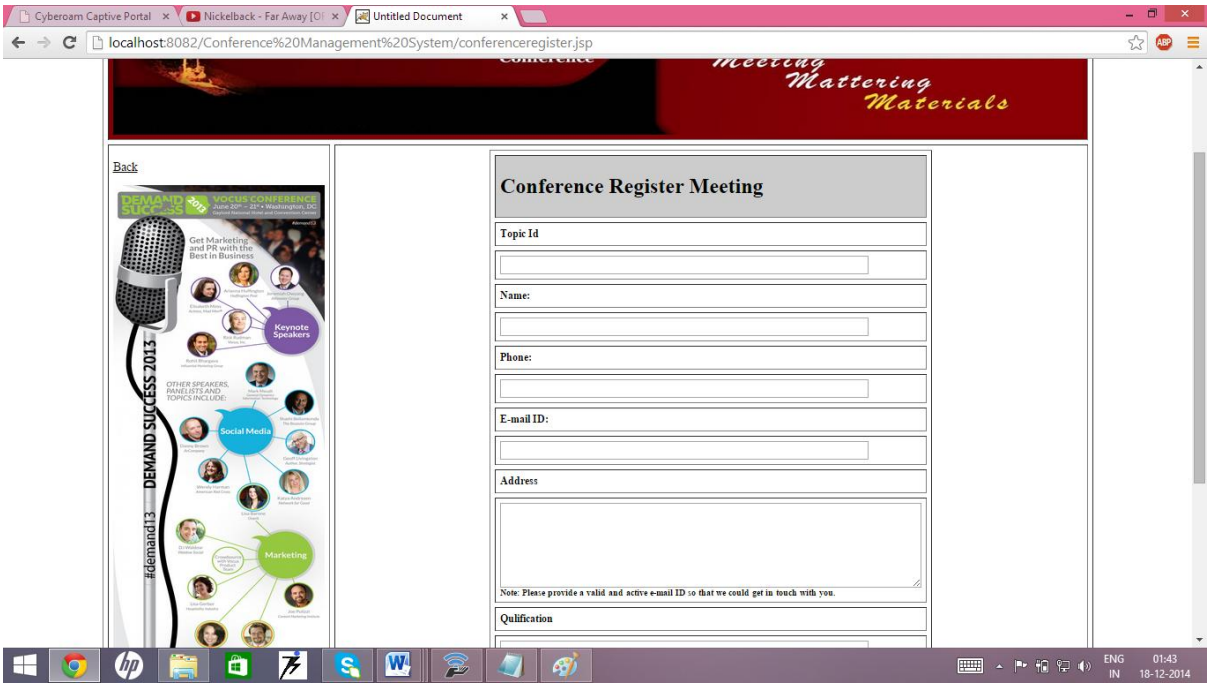


Figure 5 :User Can Register for a meeting

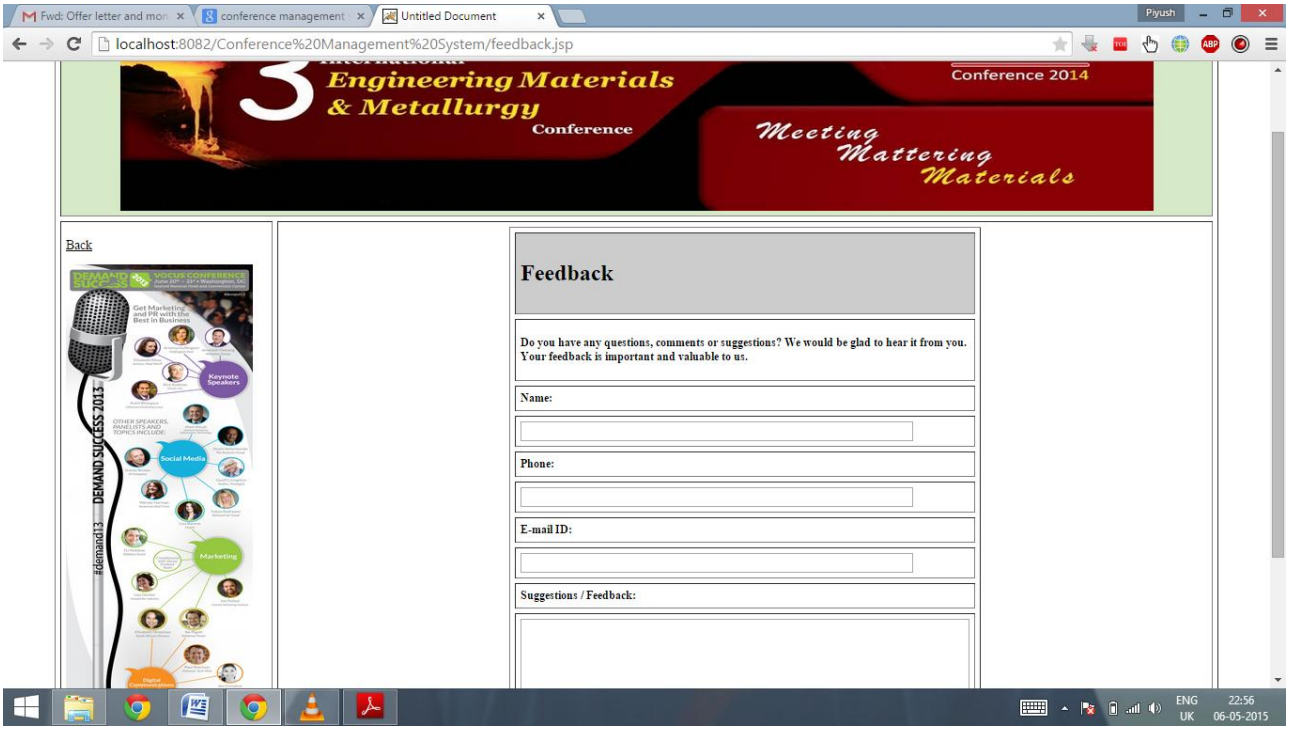


Figure 6:Feedback Form

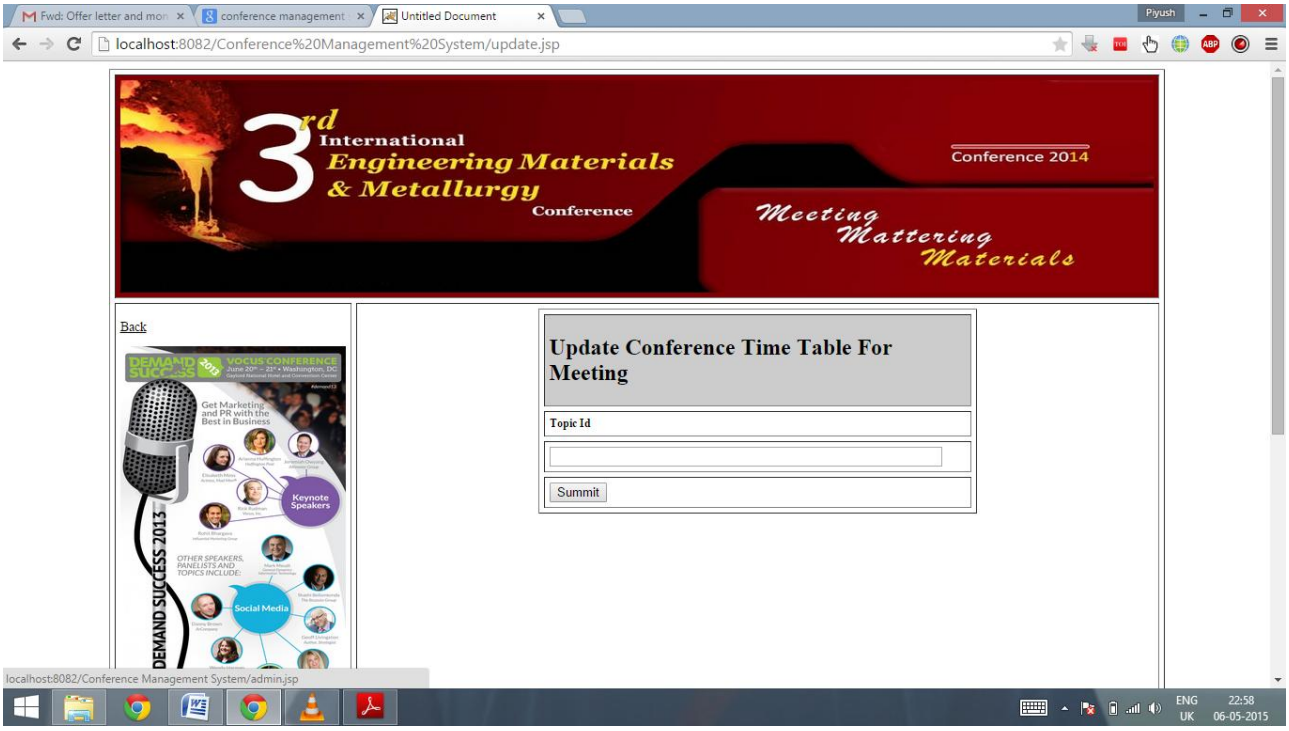
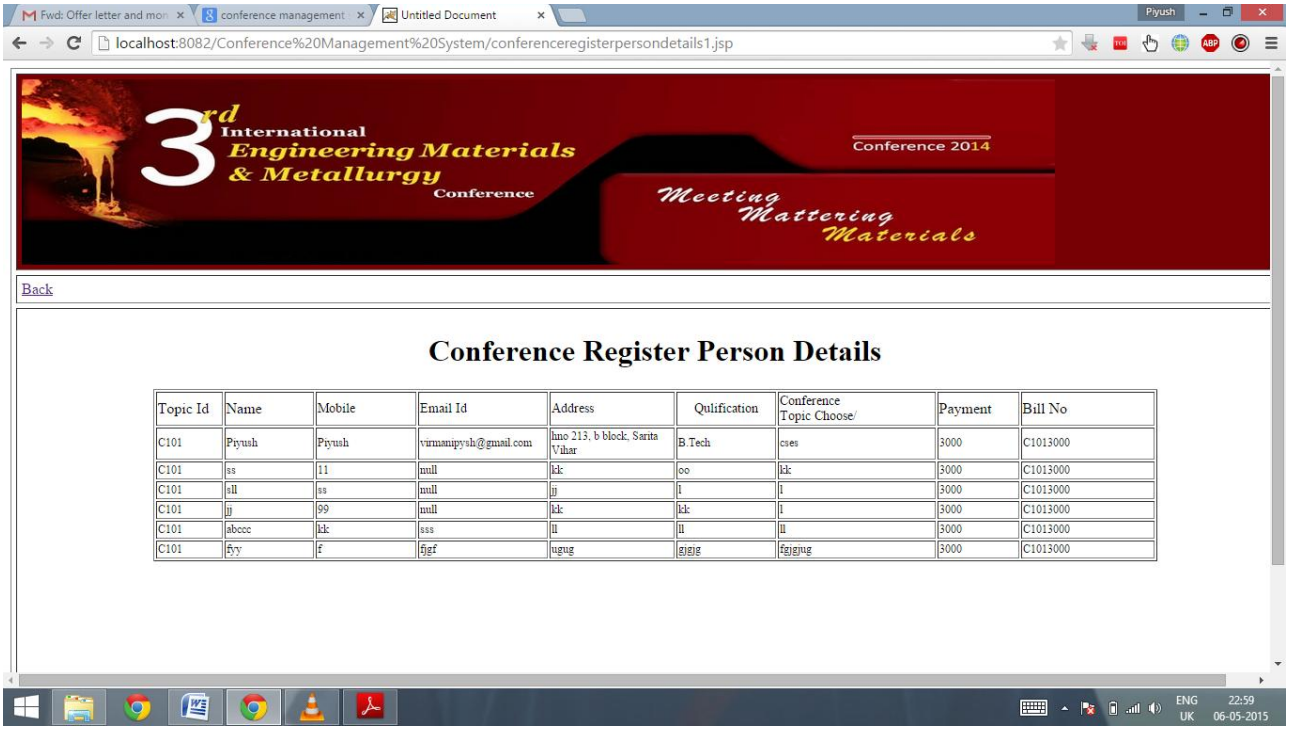


Figure 7:Admin can add Topics



Topic Id	Name	Mobile	Email Id	Address	Qulification	Conference Topic Choose/	Payment	Bill No
C101	Piyush	Piyush	virmanipysh@gmail.com	hno 213, b block, Sarita Vihar	B.Tech	cses	3000	C1013000
C101	ss	11	null	kk	oo	kk	3000	C1013000
C101	sll	ss	null	jj	l	l	3000	C1013000
C101	jj	99	null	kk	kk	l	3000	C1013000
C101	abcce	kk	sss	ll	ll	ll	3000	C1013000
C101	fyy	f	fjgf	ugug	gjgjg	fgjgjug	3000	C1013000

Figure 8:Persons registered for conference

CONCLUSION

Seeing large number of conferences being organized by organizations nowadays, the system can be very helpful in various institutions.The system provides rich support to the Program Committee chairs for managing the conference workflow including customization of conference properties e.g., multiple tracks, deadlines, author submission and reviewer forms, double-blind reviewing, allowing authors to mark conflicts of interest with reviewers, use of external reviewers and meta reviewers. The system also provides filtering, sorting and aggregation functionality as well as emailing capability to authors and reviewers that makes it easy to handle conferences with a large number of reviewers and submissions.In the last few years, CMT has been used for more than 2000 conferences, workshops, and various other programs.

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[5] P. Noimanee, and Y. Limpiyakom, "Towards a RESTful Process of Conference Management System," in Proc. International Multi Conference of Engineers and Computer Scientists, Hong Kong, 2009, pp. 991-995.