

UNIVERSITY BASED LAN ACADEMIC SYSTEM

Project report submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

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UNDER THE GUIDANCE OF

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MAY, 2018

DECLARATION BY THE SCHOLAR

We hereby declare that work done in the B-Tech thesis entitled “**University based LAN academic system**” submitted at **Jaypee University of Information Technology, Wagnaghat Teh. Kandaghat, India**, is an authentic record of my work carried out under the supervision of **MR. AMIT JAKHAR**. We have not submitted this work elsewhere for any other degree or diploma.

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CERTIFICATE

This is to certify that the work reported in the B.tech project report entitled “**University based LAN academic system**” which is being submitted by **Vibhor Sharma(141284)** in fulfilment for the award of Bachelor of Technology in Computer science and Engineering by the Jaypee University of Information Technology, is the record of candidate’s own work carried out by him/her under my supervision. This work is original and has not been submitted partially or fully anywhere else for any other degree or diploma.

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विद्या तत्व ज्योतिसमः

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Vibhor Sharma(141284)

LIST OF ABBREVIATIONS AND ACRONYMS

Key	Name
Acad	academic data
Admin	Administration
Btp	Bootstrap
Dj	Django administration
GUI	Graphic user interface
jq	jquery
Lg	Login
Rg	registration
Sad	Server Administraation

ABSTRACT

In our project we are making a university based LAN academic system which will help the students at the time of exams as the data given by the college is very limited. So we are focussing here to make all the academic things possible for students which include previous year paper with solutions, Presentations,E-books and also placement related material. This system will also have other academic related information like notices, date sheets and sitting pLANs. We will be using Django, Bootstrap,javacript for our development.

Also the students and faculty will also be having access to all data and they can also upload data out there.

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CHAPTER 1: INTRODUCTION

This project will be LAN based university academic system which aims to provide educational content at one place. This will include every type of educational content like class notes, video lectures, solutions to previous year question papers, placement related study material and e-books.

This will be an interactive system where students and faculty can communicate. They can also share educational content. This system will also have other academic related information like Notices , date sheets and many more.

The increasing demand and the use of the computers in universities with computer labs in the late 1960s that will generate the requirement to give very high-speed connection with all computer systems. So the idea of LAN came into play. A report given in late 1970s from Radiation Laboratory from Lawrence which gave detailed growth of their project "Octopus" network which will help to identify that situation.

Basically LANs are made up of cabling and some special switches. A switch is connected to a router, modem which is used for Internet access. A LAN may contain some other devices namely as firewalls, load balancers. Advanced LANs also came into play when there is concept of redundant links with switches with the help of span tree protocol to be free from loops, they have ability to tackle with various traffic types with the help of quality with service (QoS), and to integrate traffic with VLANs.

1.1 Need of LAN system

A (LAN) is a method of connection of two or many more computer devices in a building or a project.

A local area network (LAN) come up with many benefits such as:

1. you can share important things like expensive printers (laser).
2. The filesad may be useful to keep and share the documents and necessary files centrally.
- 3 . Electronic messages (email) is helpful for sending between computers.
4. All the computers within that network are possible to centrally managed.

1.1.1 Benefit for faculty and students

This project will be LAN based university academic system which aims to provide educational content at one place. In fact, the all development which is done for web and their required applications on all types on environment which may include educational and training or development has given chance to the deployment of various learning approaches and philosophies. This will include every type of educational content like class notes, video lectures, solutions to previous year question papers, placement related study material and e-books.

This will be an interactive system where students and faculty can communicate. They can also share educational content.

Also the surfing data given in the college is very less. Students like to use youtube or sometimes Geeksforgeeks but due to low data given it has become impossible to surf data and study. So i had came up this idea that why not put all the data on sad which is a local sad and students may take all tha help from that. Also in our digital library we are having only previouc year question papers and not their solutions but with help of this, we will also request faculty to send us the solution which may be further uploaded on the system. The faculty has also one important advantage of putting notices for quiz, assignments as every student does not go through each faculty folder every

day, so a generalised platform will help all the faculty and the students indeed .The faculty can also upload some scanned sheets before the examination if there is some increment in the syllabus.

1.1.2 Administration work

Indeed, admin can also spread their messages in that system apart from notice board .Sometimes it become difficult to admin and for students to visit notice board every day, so what admin can do, they can simply put that thing on the sad/system and everyone is readily active with their phones for sure. Also the seating pLAN and exam date sheets can also be put up there so that at the time of examination there will be no chaos.



Fig 1.1 LAN sharing

1.2 Problem statement

- The main advantage here will help students to save their cyberoam data at the time of examination as all the required data would be present on the server(a local computer iniatially).
- It will also solve the problem of placement related data as we(current seniors) will be in contact with Alumni for sharing placement related material, question papers and their experience.
- It will also show the current administrative notices which are sometimes skipped by students at notice board.

1.3 Objectives

- To provide all type of educational content.
- Placement related study material will be available as it is difficult to surf for the required content.
- Solutions to previous year question papers because we are only having question papers but no solutions so it will be again advantage.
- E-books so that a student need not to use the cyberoam lg.
- Video lectures will be again a advantage to save the internet data and time.
- Class notes will help all the students to recall the lecture classes as they will be put it scanned way.
- Competitive exam related study material .This will solution to competitive material as all pass out students will be helping for this.
- Research papers help to mine the data for projects, or their researches for the related topic.
- Technical and non-technical forums.
- Placement related material so that students don't have to rush on geeksforgeeks or tutorialspoint for core data.
- To provide all type of adminal content.
- Notices will include all types of academic notices related to quiz or assignments submission.

- Data sheets will include the students debarred list or shortlisted students for any exam.
- Examination sitting pLAN is one of the important factor we will be focussing of as we know that webkiosk does not provide all exams sitting pLAN.
- Chat box for easy interaction among students and faculty .This will be proved helpful for instant doubt asking with batch mates or respective faculty.
- Integration of cyberoam login with system login. Integeration will definitely help the students to login from the same account after server room permissions.But before that into account we are giving register/login form for students/faculty.
- JYC notices can be taken as a part of co-curricular work.

1.4 Methodology

There are three main modules which are required for support education: administration, the pedagogy with its required technology, and which came through a variety of combinations and they are required to imply on different education and all training systems, with all possible different approaches.

In addition, we will be using django as back-end LANguage and bootstrap , css , javascript , jq AJAX as front-end LANguage. The entire project will be tested on local computer and will be deployed on university server. We have made our methodology much easier and more user friendly as once we will leave , the juniors can also extend this project as it is made for the betterment of the university.

We will try to make it easy for faculty such that they can also upload necessary material on the system which may include some important notes or some kind of quiz or assignment notices.

The LANguages which we will adopt are basically Bootstrap, CSS3 , javascript ,jq and for back end, we will be using Django which is very easy to implement and most important, efficient as compared to other LANguages and for database we will be using only mysql which is basic of all and more efficient as compared to mongodb.

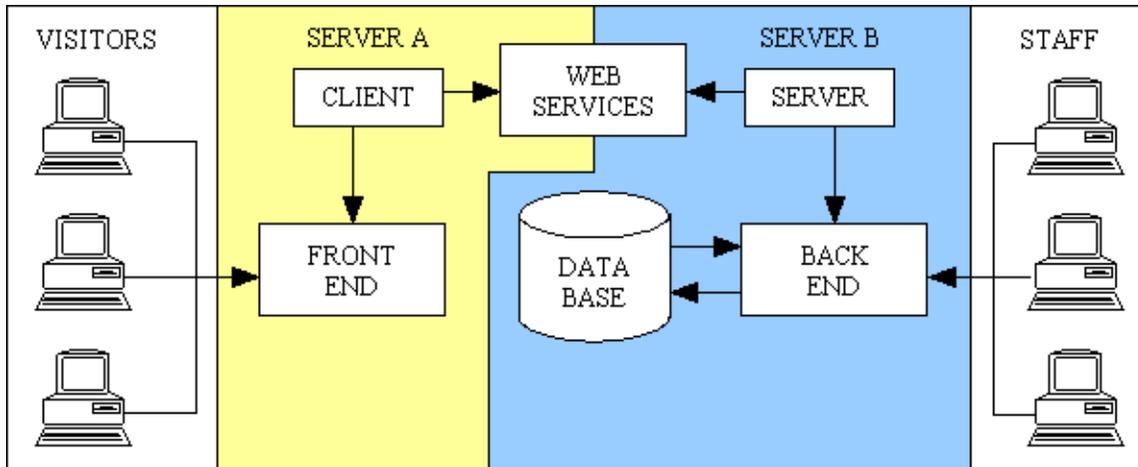


Fig 1.2 Basic structure

This figure shows the basic structure that is required by the database. Here we will work on various front end technologies which are bootstrap , css , javascript , jq , angular js for back end technology we will be using Django, php , mysql for database and many more. The basic thing is using Django which is very good as it supports modular programming which is very efficient as if you want to render some part in any module, just edit that in base class and call that block in every other file, all changes will get updated.

CHAPTER 2: LITERATURE SURVEY

2.1 Email Based LAN Monitoring System[1]

With a concern, we know that computer when grouped together, they form network. Managing and controlling all when in an organization is sometimes nice task. But stay from office, how will the monitoring will gets achieved ? It is not good on relying on one else , you can always take help of email accounts will always help you to get rid the purpose.

The interaction between clients and remote administrator gets achieved with reach of that some unix system. The major requirement here is to give major information to the required admin through the machine, when admin sometimes stay away. Take this, when installing office with all cables required for LAN , and you want to check info while sitting at house and view all the required information.

2.2 Introduction

The info and role of this paper is to give all possible info to the required admin which will get on someone email account , when admin gets away from station or somewhere else.

Now as we know that is helping itself in switching the line “world in hands”. The major role here would be to get controled and monitored Local Area (LAN) network with the help goole accounts which are not keeping of distance. Take this, installing server and cables and you want to check status while sitting at home and view all the required information.

In this time with services , email gets widely used and it has helped to penetrate each possible part of life , but getting remote monitored networks with the help of this email is still a problem, this response to make this problem into solution, and as we can we can apply the server solutions here.

2.2.1 ARCHITECTURE

Administrator will send his desired request through a given SMS using his/her device possible a phone with the help of GSM modem passing to the server. Server will get to recognize the client work machine which our administrator is supposed to get it monitored and then extract all the data from locally cache data buffered where every 15 sec, the all information of every machine will get updated or stored and it will send that info to administrator which will be stored as response. Administrator will be provided a GUI based application in J2ME which will be helpful to send the required message.

Server will send all the command to the all possible clients like init process, shutting - down process, kill process, create, delete, send task list, com-pile code. With the help of that GSM service provider the communication will be made possible with GSM modem which will further communicate with server and server will further communicate with all the required client. All clients gets controlled, monitorings by administrator helping series of SMS. The administrator will also control the LAN through his local device when he or she is at remote place. The clients will not send back or will further communicate with administrator , all the communication will be uni-directional. It is not two way.

The required device used can be any mobile having GSM facility in it. Also administrator will also get power to check all network on LAN.

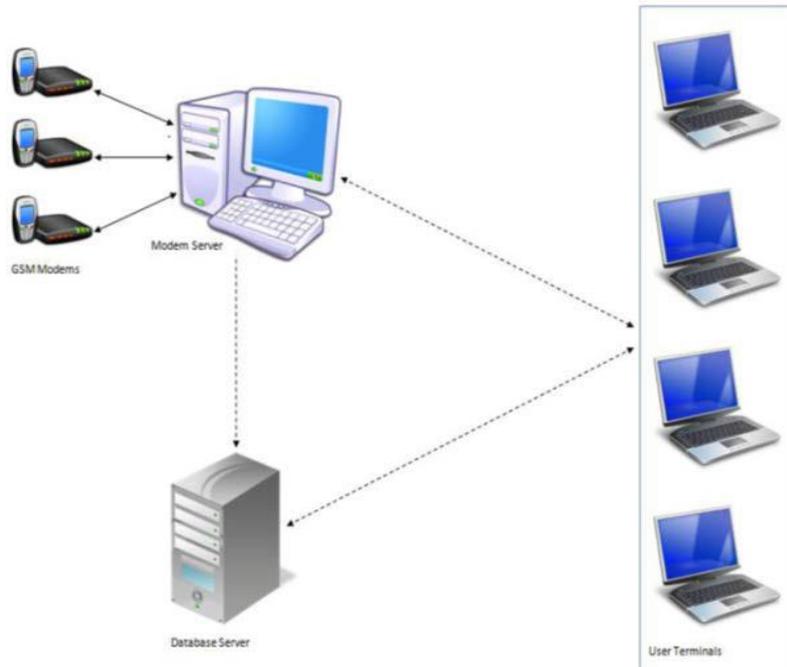


Fig 2.1 GSM based LAN Monitoring system

Administrator will be provided a GUI based application in J2ME which will be helpful to send the required message.

2.2.2 FEATURES CONTROL FROM EMAIL

1. **Net View:** when you will access your email, the list containing entire client's will get LAN.
2. **Process List:** it will show all processes which will be running in that machine.
3. **Activate Process:** here you have advantage to operate machine in server or in client.
4. **Kill Process:** you can here the halt any of the process which you want.
5. **Read:** as this feature suggest, you can have full access to all drives and all folders of any client or the server.
6. **Open File:** open email will help you to get access to any txt file inside your database , to get it open through email.
7. **Broadcast messages:** this is the case of many to many functions, which can be from server to the client or vice versa.
8. **New File: on** Creation of a brand new file and then its your choice to save it to the server or the client.
9. **Delete File:** removing the file from the database.
10. **Shut Down:** It will work all the time.
11. **Keystroke:** keystroke will help to perform the operation.
12. **Mail File:** it will help the admin when they need help.
13. **Screen Shots:** the name suggest itself, to give it to desktop.

2.2.3 BENEFITS AND APPLICATIONS

1. **High performance:** It allows us to develop a software which will help us to get access to LAN by our email account. Here one thing that is our primary requirement is high speed internet for better increasing performance.
2. **Scalability:** we are open to connect any number of server and the clients to our system.
3. **Availability:** - Availability means that we have full access to system even when the admin is not with us..
4. **Reliability:**-We will be able to perform all the administrative functions very easily.
5. **Transparency:** For all above features done , we all need to focus on all admin requirements for better understanding with user.
6. **Platform independent:** it should be made in such a way that it should be made available to run on any platform.

2.2 Overview of the Local Network Monitoring Projects and Tools[2]

2.2.1 Introduction

CESNET has a long-time experiences with network traffic monitoring on its backbone lines. The CESNET2 network is equipped with a dedicated flow monitoring probe at every external network line and also network routers provide flow information. The peak traffic of the most heavily utilized lines easily reach 15 Gb/s.

Insight into the network traffic, provided by the network monitoring tools, brings unassailable benefits for network operators, especially in the field of network security.

On the other hand, monitoring only the backbone lines easily overlooks problems in local networks. Although such affairs have a significant impact of the enduser experience. This text provides an overview of a tools applicable in the environment of local networks for the network traffic monitoring as well as for measuring various network characteristics.

Furthermore, the overview of currently active projects related to this area is provided. These projects can serve as a source of knowledge for a future development of monitoring/measurement tools at CESNET.

2.2.2 Local Network Environment

Though the CESNET experiences with the network monitoring, we have to remember that, in comparison to backbone networks monitoring, local networks environment has several differences that substantially affects the network monitoring methods.

2.2.3 Metering device

The end-user local networks are isolated, so a metering device must be deployed in each (or in as many as possible) network. This way a) the operator is able to get a complex view on end-users but also on their transport networks from hundreds or thousands of devices and b) each end-user is allowed to get precise information related to their network. But the need of such a huge number of devices imposes requirements on a low cost of such a device. The cost naturally impacts the performance.

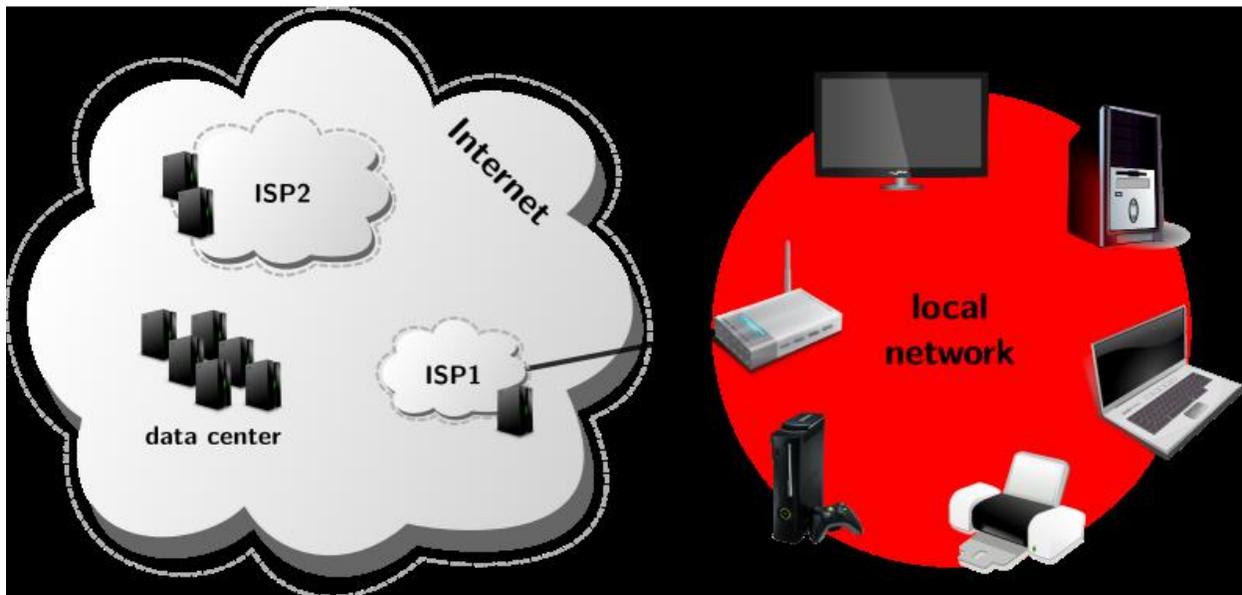


Fig 2.2 Local Network

2.2.4 Working of network

This text provides an overview about possible approaches to the monitoring of enduser networks. It describes the currently running projects focused on this area as well as a set of tools to obtain various information about the network traffic. This research brings a base knowledge to our following work — we pLAN to develop a kind of an office network probe. With such a device, we want to increase accuracy and usability of our current tools for monitoring backbone networks and improve the security of networks and their users.

2.2.5 Conclusion

From the currently running projects, it is obvious that the device hardware is not crucial. With gained experiences and knowledge we can quite simply change the specific hardware of the probe. This is possible with a commodity devices (SoHo routers) and customizable operating system (OpenWRT). Besides the severity of developing a custom hardware device, the flexibility of changing commodity devices according to changing demands is the main reason to recommend to use a commodity devices instead of developing hardware probe on our own. The key issue of our work is going to be development (or customization) of the tools to obtain and analyse data from the monitored network. The first decision should be about the type of monitoring we need to do in the local network.

Both types, active and passive monitoring, requires different point where the probe is supposed to be deployed. While in case of active monitoring, the probe is supposed to behave like an end-user device, in case of passive monitoring, we need to observe as much of network traffic passing the local network as possible.

2.3 Design, Implementation with monitoring LAN user wirelessly with Android based on client/server mode[3]

As we know that today everyone focus on android phones, which can also be used monitoring our network. It becomes difficult to control the network when we are away from the network but gets easy accessed when we are in range. Here our main role will be to provide all wireless info to network to the admin. Here we will be using data, connectivity or wireless network with LAN server.

2.3.1 INTRODUCTION

In general, as we had earlier discussed that it would be handy to control system when we are in office rather than staying away from office. It is not required that everytime you get dependent upon any other party information. Our main aim here is to make that software, which will help you to get all info remotely with the help of his/her android device. For all kinds of monitor and controlled system, we will generally use PC as monitor and control device with system. This system will not be used with that areas which required remote/mobile communication which includes management, automation and control with their sufficient maintenance.

Along with all the required development and all popularity of all wireless communication and all android devices basically mobile devices. Also when we will use mobile devices, the all the functions including monitoring and controlled becomes easy.

2.3.2 Features of Android Based System and Advantages of system:

There are several features with android based system which are here stated here below.

Features:

1. Client list- Here we can get all stack of currently logged clients any time. Also we can keep all path of client any moment.
2. Process list- As the feature suggest, it will give all info about currently running process in that machine..
3. Activate process- It will include the init process which can be on server or with the client.

4. Kill processes- Here we have power to halt any process at any moment.
5. Scheduling: We can halt the process according to their priorities.
6. Data recovery- data recover is also very indeed, important.
7. Pen drive Check Service: It is also one the secondary feature as we will see as it will help us to clarify if or not, a removable disk is connected or not.

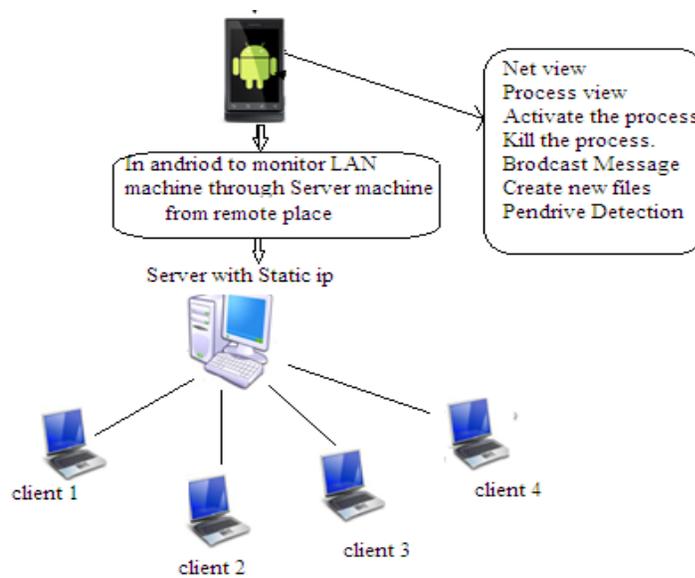


Fig. 2.3 Proposed System Architecture

2.3.3 WORKING

System Connectivity:

Here we have to select any one feature through admin on that device, and then a suitable https portal request will be thrown from the device in that url form and that will get received with the server. As soon as as client will get the info , it will tell that info again to the server. Once client will get the details, it will unzip all the details and all other necessary parameters. Also we know that when we are working with network , we always have that ip address.

Also the url will be written in java.c code which will work at the server side because the client side will only have access to the server connect code. All the powers are with the admin once again for establishment and connection with the main server.

2.3.4 Advantages

1. Scalability: we are open to connect any number of server and the clients to our system.
2. Availability: - Availability means that we have full access to system even when the admin is not with us..
3. Reliability:-We will be able to perform all the administrative functions very easily.
4. Security and convenience: The Android based LAN monitoring system is very convenient and secure.
5. Transparency: After meeting all the above requirements, naturally our system will be easily understandable to use.

2.3.5 Application

1. LAN is basically used at the university premises for fast data transfer , and getting all kinds of user activity.
2. Also we can use LAN at office level where admin can also go for cup of tea if want to go.

2.3.6 CONCLUSION

So here we get to know that GSM is not that good actually. It is the only reason that why we had done use of sms based network and then we came to know the development with the wLAN monitoring. The system is also having one good advantage that android system will have the full control either when the admin is not present.

1. Users: The users are actually the client which are having ability to communicate with cash other. Also they have ability to connect with the server.
2. Admin: Admin here is actually the server who has access to monitor the complete LAN system with the help of android device and they can easily with the client.

2.4 Android Based LAN Monitoring System[4]

The increasing demands of machines in colleges and research labs generated will provide very speed connections with all systems . This system will tell you how more than one computer will be connected with the help of known network which is indeed , LAN can be monitored which contain remote places and also the phone device i.e. Taking insight all the info would be monitored by admin device . Also having that system encourages admin to get all the required details if the wifi or that kind of connection is made to be open. This system will help you to show how will it get enabled in colleges, public sectors, industries and many more.

2.4.1 INTRODUCTION

All the computers will be connect to server. It is only using the basic client server mechanism. All the systems connected in LAN will gets tackled by the server. Now it is the turn of the the admin, if he wants to be boss for all info , then he also had to make one step forward by keeping himself staying in that area. We will be doing this system on android based platform .All the info will be secured so that only admin will have access with it.

Also as the admin will be access the system from anywhere , he should be provided with internet access. Main role here will be to provide all info of LAN to the required admin. The necessary features provided by the system are required to get that available client data .

2.4.2 WORKING

The system here contains of server , main clients and the necessary android device. The system will be connected in local area network. All the main clients will be connected to the android device which will also be connected with or parsed with json parsing. Whenever admin wants to get all info , his request will be sent to the server. The server will get all the information and it will then send it to the android device. Also we are implementing this using android as it provides very user friendly environment and very useful GUI's. If admin wants that , he should get access to all process list with any client , then he has to opt for second feature. Also there should be internet facility, so if it is not then admin will have to see the log by opting for third feature.

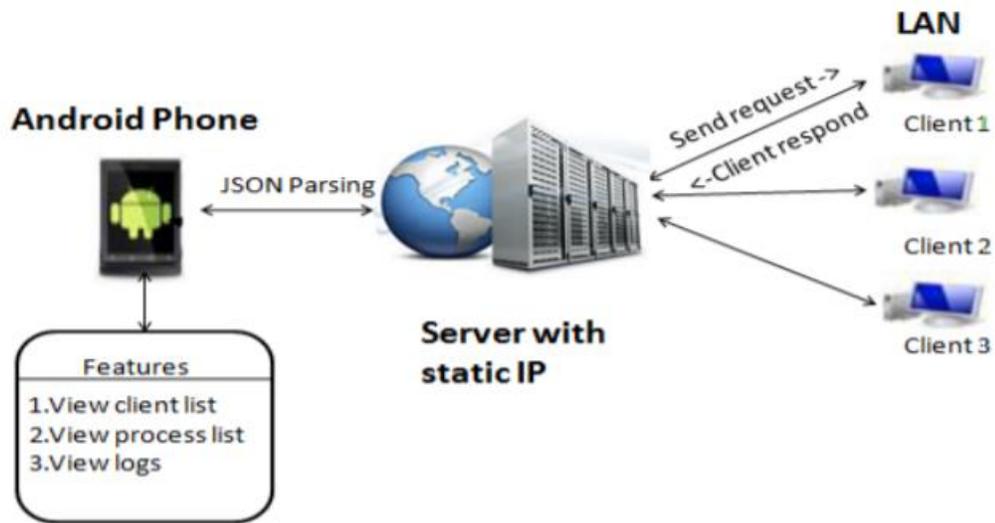


Fig 2.4 Proposed system

We are using JSON Parsing between Android phone and server. JSON is nothing but JavaScript Object Notation. When admin will select a feature on phone, the HTTP request is sent in URL form and received by the server. This same HTTP request is read, encoded by server and sent further to the client. This URL message is read by client and gets the command name and other required parameters and command is executed on the particular machine. The URL consists all important modules of server . URL from phone to server is written in the java code which is at the server side.

2.4.3 CONCLUSION

This system will tell you how more than one computer will be connected with the help of known network which is indeed , LAN can be monitored which contain remote places and also the phone device i.e. Taking insight all the info would be monitored by admin device. So we came to know here that taking android system for regulated information is very useful. Also we had made use of LAN here which is also very useful these days for very rate information and data transfer.

CHAPTER 3: SYSTEM DEVELOPMENT

3.1 Design analysis[5]

We will be creating system in which the main actors would be students , faculty , administration. Once student has got into the system, he or she will have full access to login , register , browse all catalog. For Faculty, we will be providing CRUD operations for them namely create, read, update, delete.They will also be open for login and rg , uploading important notices and many more.

In context to this, the role of administrator (developers) here will be not that simple. They have to add all users account with their roles , view other user details, edit user accounts and their roles. When it will come to edit situation, they had to confirm, edit, delete new students , update all latest academic data, all kinds of administration notices. The main importance here will be shown at the time of exams by showing seating pLAN arrangement, date sheets such that at the time of examination , there will be less probability of traffic near notice board. We will create system open such that everyone should be open to CRUD operations as when anyone got the relevant data , he/she do not have to contact the admin for update.The update operation is also open for faculty as they are the one who will be having rapid uploadation of data.The update operation of administration will be done by anyone of the system admin at any time.

3.1.1 Use Case Diagram

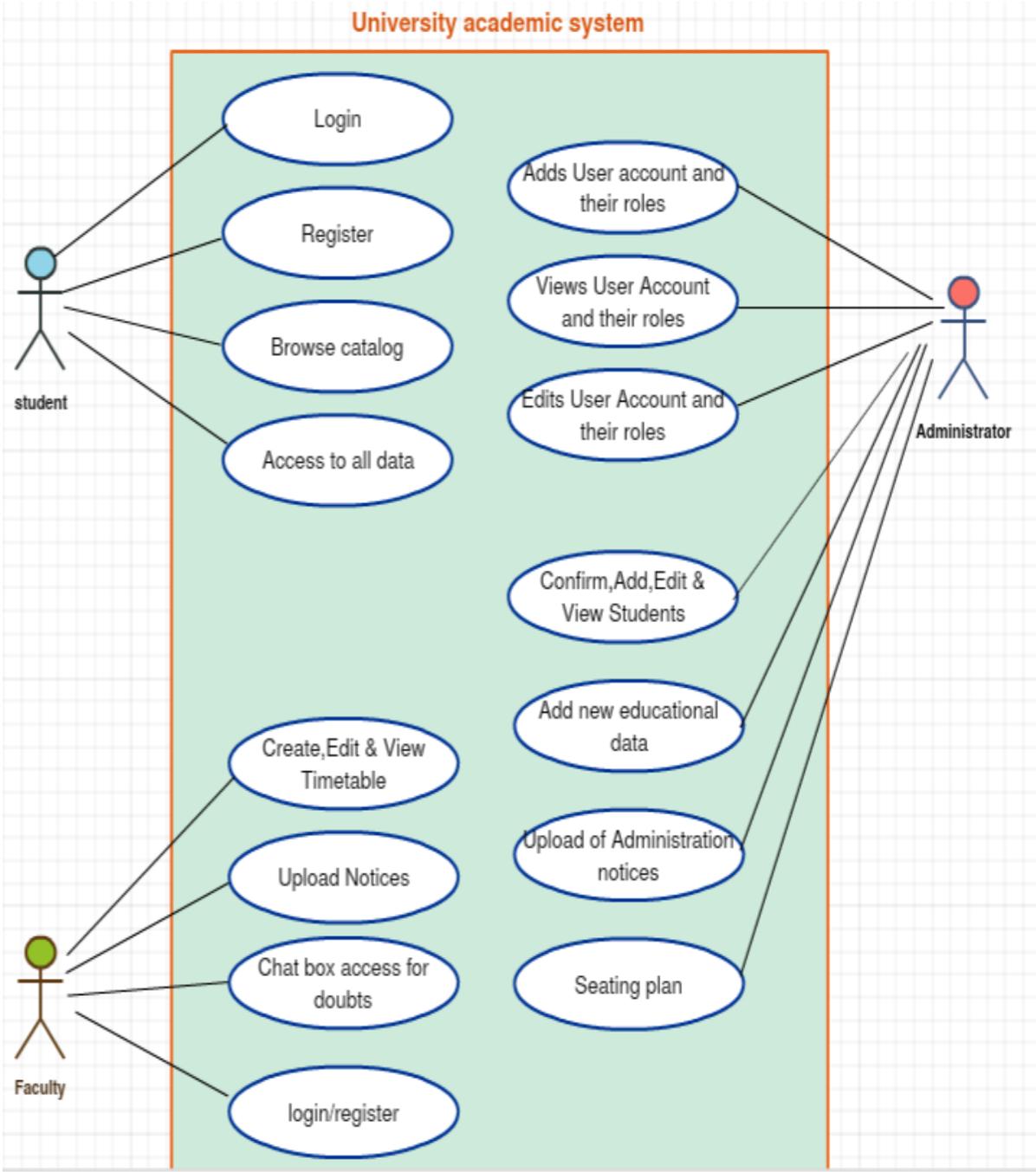


Fig 3.1 Use case diagram

3.2 Model development (Analytical)[6]

Here the development is very interesting as we had used Django for back end development which is one of the most efficient LANguage today. Django supports modular programming which means we can create a base class and we can put that data in it which would be required in all pages. Let us take example of Header and footer in a website which remains same throughout. Here also in our website we will be using our base file for header , footer and some part of the main content and some part of navigation bar.

3.2.1 Django for developer

We also used Django as it is best for the developer point of view. It provides best solution for MVP design which is model, view and controller design. It was previously best with ASP.NET but now as Django has arrived, it is also doing its best for this job. With transparent and with help of clean code, we know that development would be efficient and naturally effective . Also Django is called “the web framework with perfection for perfect people with deadlines” as it allows all the developer can easily grasp the development structure which is very important.

3.2.2 Some Django code which will show how it is efficient[11]

Source code:

```
{% load staticfiles % }
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, maximum-scale=1">
<title>{% block title % }
{% endblock title % }
</title>
```

```

<link rel="icon" href="favicon.png" type="image/png">
<link rel="shortcut icon" href="favicon.ico" type="img/x-icon">
<link href='https://fonts.googleapis.com/css?family=Montserrat:400,700' rel='stylesheet'
type='text/css'>
<link
href='https://fonts.googleapis.com/css?family=Open+Sans:400,300,800italic,700italic,600italic,4
00italic,300italic,800,700,600' rel='stylesheet' type='text/css'>
<link href="{% static 'sem/css/bootstrap.css' %}" rel="stylesheet" type="text/css">
<link href="{% static 'sem/css/style.css' %}" rel="stylesheet" type="text/css">
<link href="{% static 'sem/css/font-awesome.css' %}" rel="stylesheet" type="text/css">
<link href="{% static 'sem/css/responsive.css' %}" rel="stylesheet" type="text/css">
<link href="{% static 'sem/css/animate.css' %}" rel="stylesheet" type="text/css">
<!--[if IE]><style type="text/css">.pie {behavior:url(PIE.htc);}</style><![endif]-->

<script type="text/javascript" src="{% static 'sem/js/jquery.1.8.3.min.js' %}"></script>
<script type="text/javascript" src="{% static 'sem/js/bootstrap.js' %}"></script>
<script type="text/javascript" src="{% static 'sem/js/jquery-scrolltofixed.js' %}"></script>
<script
src="E:\project\kennis\sem\static\sem\js\jquery.easing.1.3.js"></script>
type="text/javascript"
<script
src="E:\project\kennis\sem\static\sem\js\jquery.isotope.js"></script>
type="text/javascript"
<!-- <script type="text/javascript" src="js/wow.js"></script>
<!-- <script type="text/javascript" src="js/classie.js"></script>
<!-- <script src="contactform/contactform.js"></script> -->
<!--dropdown downloaded-->
<link href="http://www.jqueryscript.net/css/jquerysctipttop.css" rel="stylesheet"
type="text/css">
<link href="E:\project\kennis\sem\static\sem\js\animate.css/3.5.2/animate.min.css">
rel="stylesheet"
<link rel="stylesheet" href="E:\project\kennis\sem\static\sem\css\bootstrap.min.css">

```

```
<link rel="stylesheet" href="E:\project\kennis\sem\static\sem\css\bootstrap-  
dropdownhover.css">  
{% block css %}  
{% endblock css %}  
<style>  
body { background-color:black;}  
.dropdown-inline {  
  display: inline-block;  
  position: relative;  
}  
</style>  
</head>  
<body>  
  
{% block bd %}  
{% endblock bd %}  
  
{% block body %}  
{% endblock body %}  
</body>
```

The reason of pasting this code is to show the concept of modular programming . As you can see we have blocks there, so what we can do is just simply pasting the code inside that block and calling that block in other files.html pages. This will provide us one major benefit that when we want to change any module, we just simply have to change the block inside that base class and it will directly affect all the other classes which will reduce our coding part.

Django.admin (apps.py) //init process with django

```
from __future__ import unicode_literals  
from django.apps import AppConfig  
class SemConfig(AppConfig):  
    name = 'sem'
```

Django.admin (admin.py) //init process with Django

```
from django.contrib import admin
```

CHAPTER 4: PERFORMANCE ANALYSIS

4.1 Login and Registration(Students and faculty).[10]

Below shown is the sequence diagram which will show tat how the system movement will be done once any user has entered the system. This will be showing all the possible conditions when user has entered into system.

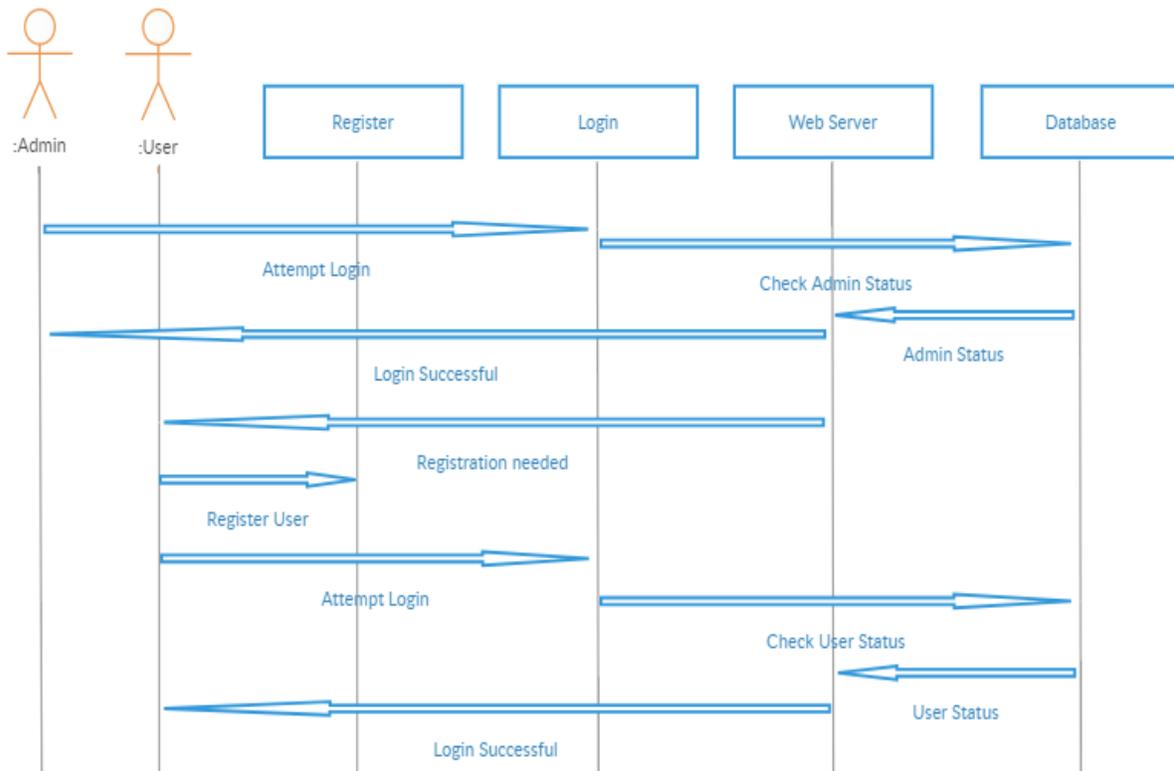


Fig 4.1 Sequence Diagram

4.2 OUTPUT AT VARIOUS STAGES[12]

4.2.1 Video player

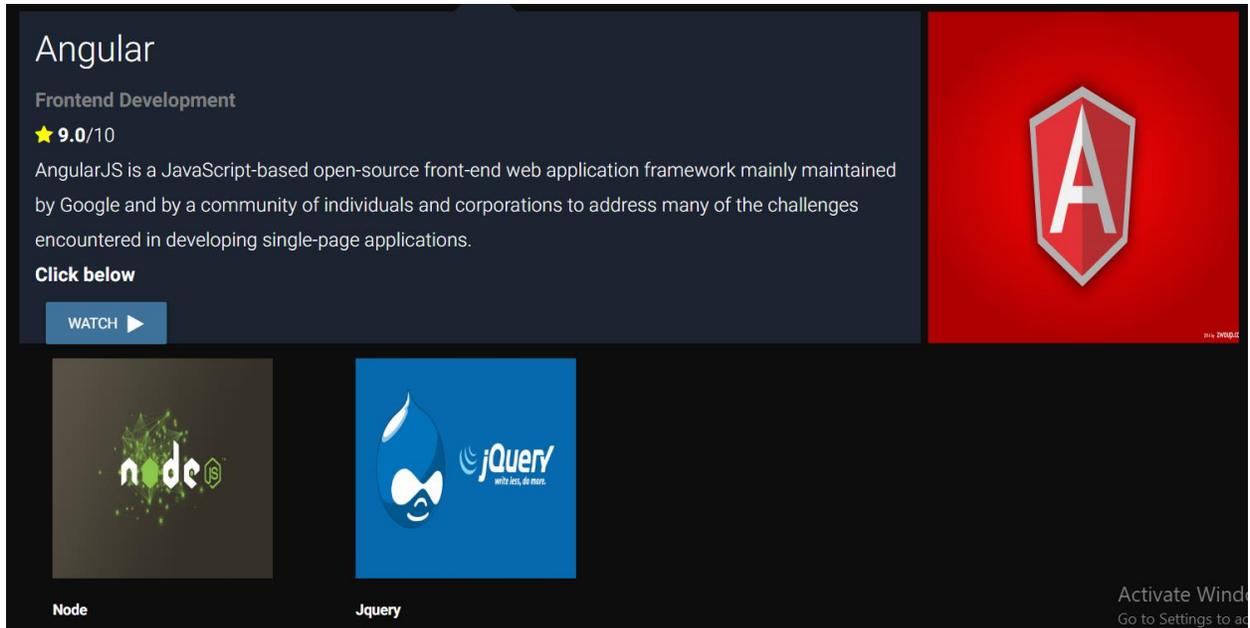


Fig 4.2 Video player

This player is developed on Jq and this contains the video lectures which is again one of the primary requirement of our project. On clicking the “watch” button, the screen will change and video player will appear which is very easy to use. At this stage we will be just providing a brief introduction about that LANguage, review given to it and its logo. This is actually incomplete video player and just see then next part for other data.

Video player[13]

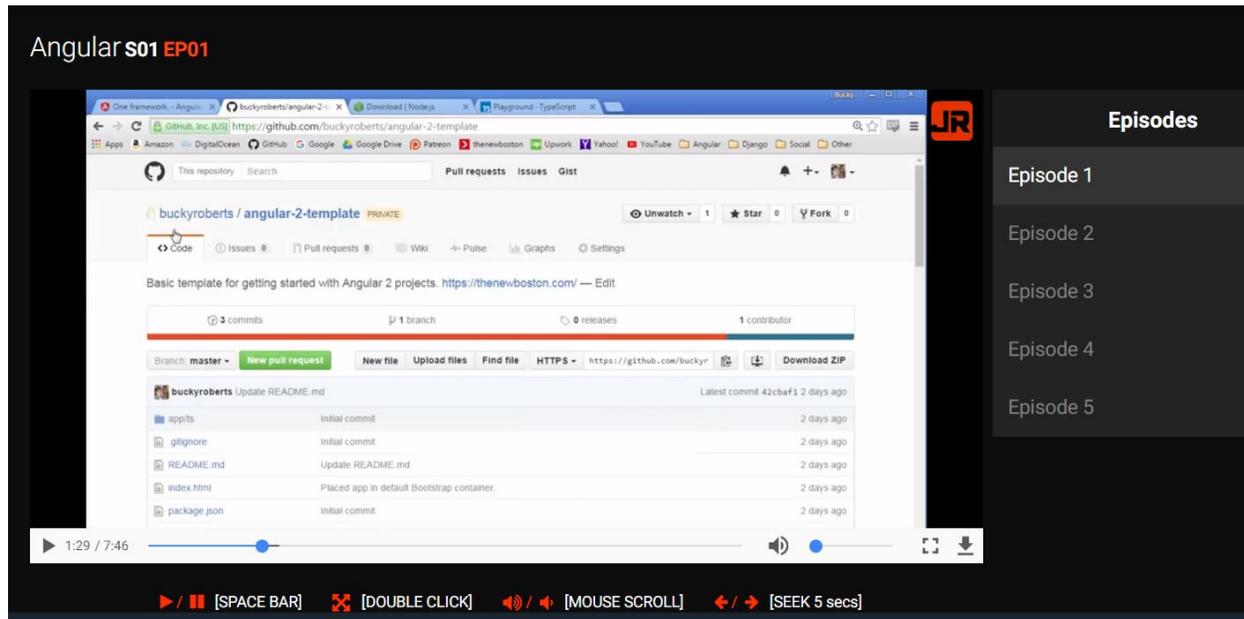


Fig 4.3 Inside video player

This also describes about video player but it will give detailed view about it. This is created on Jq and it will describe/show how video will be played. It is made such easy that whole work is done on arrow keys. The forward and backward arrow keys will work for the video seek and up and down keys will be responsible for sound change. We have also created side bar fir quick switch between all the episodes/videos. Double click will do the work for full screen and vice and versa. Spacebar will be used for pausing or resuming the current video. You can also download the video using download button or through IDM which is simple integration tool.

4.2.2 Previous year examination answers



Select branch ▾

Financial Management (10B11PD411) T-3 May, 2012 (Sem 4)

[View Paper](#)

[View solution](#)

Operating Systems (10B11CI511) T-1 September 2013 (Sem 5)

[View Paper](#)

[View solution](#)

Advanced Database Systems (10M11CI113) T- 1 September, 2015 (Sem 7)

[View Paper](#)

[View solution](#)

Theory of Computation (10B11CI513) T-2 OCT, 2017 (Sem - 5) B. Tech [Oct-2017]

[View Paper](#)

[View solution](#)

Analog Electronics (10B11EC312) T-2 OCT, 2017 (Sem 3) B. Tech [Oct-2017]

[View Paper](#)

[View solution](#)

Fig 4.4 Previous year solution portal

This module is totally build on Dj. Here what we are trying is to give solutions to previous year question papers. The main problem that students face that they are having access to question papers, so what they can do with only papers if there is no solution given to them. So we will also request faculty to assist with solutions or we will provide a separate portal afterwards to them. We have created the button event on java script so that students don't have to download the paper every time and they can always view it on the machine/current tab. The pdf viewer is build using viewer.js file help. We had created the system/portal as easy or handy so that the non-cse students who are somehow weak with computer operations so not have to face problems. There is also one dropdown for quick switch between the semester , branch.

4.2.3 Server administration with Django[7]

```
Django version 2.0.3, using settings 'kennis.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
Not Found: /
[08/May/2018 10:37:07] "GET / HTTP/1.1" 404 2027
Not Found: /favicon.ico
[08/May/2018 10:37:07] "GET /favicon.ico HTTP/1.1" 404 2078
[08/May/2018 10:37:11] "GET /sem HTTP/1.1" 301 0
[08/May/2018 10:37:11] "GET /sem/ HTTP/1.1" 200 8399
[08/May/2018 10:37:11] "GET /static/sem/css/style.css HTTP/1.1" 200 18152
[08/May/2018 10:37:11] "GET /static/sem/css/responsive.css HTTP/1.1" 200 3815
[08/May/2018 10:37:11] "GET /static/sem/css/font-awesome.css HTTP/1.1" 200 26901
[08/May/2018 10:37:11] "GET /static/sem/css/style2.css HTTP/1.1" 200 11423
[08/May/2018 10:37:11] "GET /static/sem/css/animate.css HTTP/1.1" 200 69747
[08/May/2018 10:37:11] "GET /static/sem/css/demo.css HTTP/1.1" 200 3608
[08/May/2018 10:37:11] "GET /static/sem/js/jquery-scrolltofixed.js HTTP/1.1" 200 20511
[08/May/2018 10:37:11] "GET /static/sem/css/animate-custom.css HTTP/1.1" 200 74079
[08/May/2018 10:37:11] "GET /static/sem/js/bootstrap.js HTTP/1.1" 200 58300
[08/May/2018 10:37:11] "GET /static/sem/css/bootstrap.css HTTP/1.1" 200 127734
[08/May/2018 10:37:11] "GET /static/sem/js/jquery.1.8.3.min.js HTTP/1.1" 200 93637
Not Found: /sem/img/logo1.png
Not Found: /sem/img/small-logo.png
[08/May/2018 10:37:12] "GET /sem/img/logo1.png HTTP/1.1" 404 5335
[08/May/2018 10:37:12] "GET /static/sem/images/bg.jpg HTTP/1.1" 404 1675
[08/May/2018 10:37:12] "GET /sem/img/small-logo.png HTTP/1.1" 404 5350
[08/May/2018 10:37:12] "GET /static/sem/img/pw_maze_black_2X.png HTTP/1.1" 404 1708
Not Found: /sem/favicon.ico
[08/May/2018 10:37:13] "GET /sem/favicon.ico HTTP/1.1" 404 5329
Not Found: /sem/favicon.png
[08/May/2018 10:37:13] "GET /sem/favicon.png HTTP/1.1" 404 5329
[08/May/2018 10:37:15] "GET /static/sem/css/fonts/fontomas-webfont.woff HTTP/1.1" 404 1729
[08/May/2018 10:37:15] "GET /static/sem/css/fonts/fontomas-webfont.ttf HTTP/1.1" 404 1726
Not Found: /enterssem
```

Fig 4.5 Server build up

The purpose of sharing this data/image is done so as to become clear with Dj. The above clip shows the init process with Dj. We can just simply browse to our root directory and just run the python manage.py command which will start the development server at 127.0.0.1:8000. This is also the same as ip of angular server. Here after moving to any of the link, the http request will pop up and we can have track of all the events and likely it does in the above picture. Here meaning of all the lines is that I had moved on to other link and I have done update operations in it.

4.2.4 Django project link method[8]

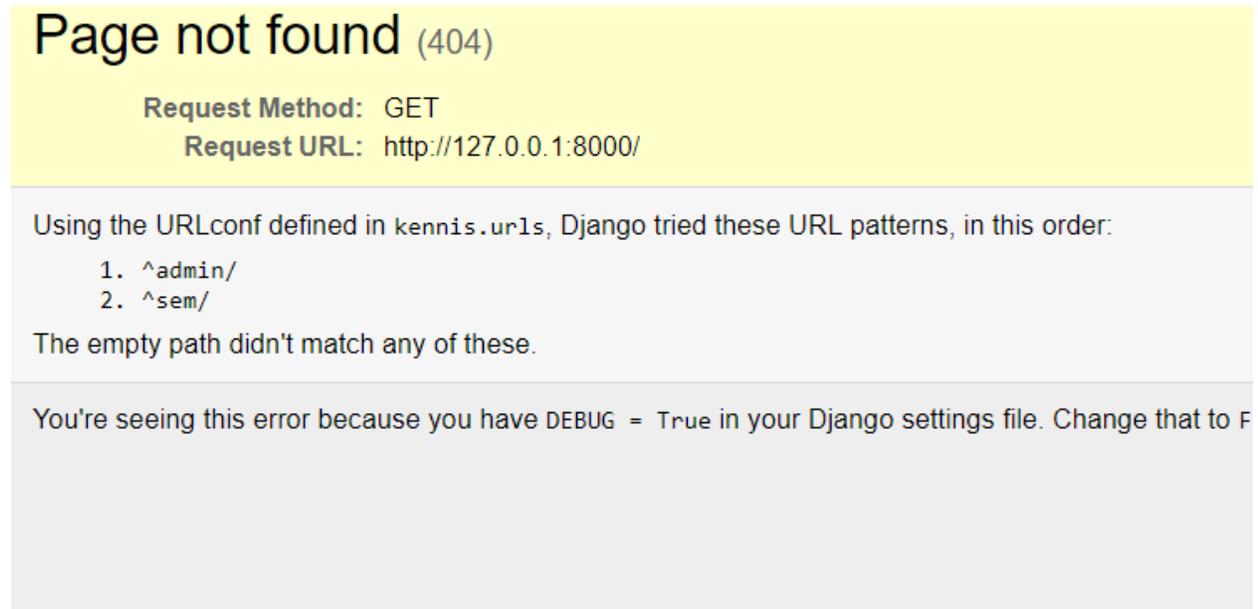


Fig 4.6 404 error

As we know that sharing error page is not that necessary. But when you are working with Django , you can see this because in Django when you define your `urls.py` file, after every time, you will update the base link. Now when the project is start, and then if we will type this link, it will show the welcome to Django page. But now we are inside our project so every time we have to make our base file/page change every time. Get method request will pop up everytime.

But not to worry everytime, you will get the below message which is showing that we have made it true in Django settings, and we have to change it to false , if we want to see the standard welcome page. So we will make it false as it is and we will just change the base link if any of the update operation is done. You can go through `docs.djangoproject` , there you will see hoe to tackle with Django server and its configurations. Also the site is easy to understand , if it is not working out, we can also go to `stackoverflow` as that website is also helpful many times.

The figure is just simple 404 not found error request but the motive here is to study the concepts of back end LANguages , that's why we have posted this picture.

4.2.5 Main content on the index page[9]

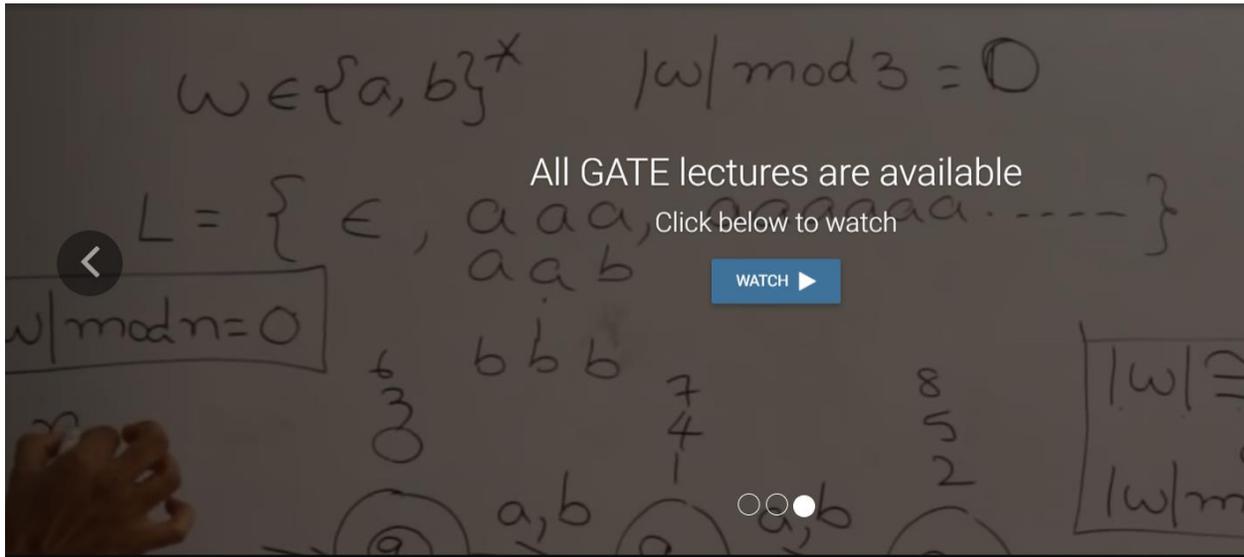


Fig 4.7 Carousel

This is the main content on the index page. This is made by bootstrap carousel. Here you will be able to see all the moving videos in the background. The carousel contains the watch now button which will redirect you to the video player. And there is also go to pdf section which will redirect you to question paper and solution page. Now when the project is start, and then if we will type this link, it will show the welcome to Django page. But now we are inside our project so every time we have to make our base file/page change every time.

We have created this for just quick redirect to video player, otherwise it does not pursue any significant role rather than focussing light on any significant topic which could be images sometime.

As you seen that the above analysis were totally related with the output. We had tried to maintain the system which will suitable for all the students so that there will be no chance to chaos at the time of examination. We actually want to make is easy for the students and for the faculty so that communication could be easy.

We would also like to extend it to administration so that they will also contribute with the seating pLAN, date sheets and many more. If possible, we would like to get the server permissions from

the server room so that we will be getting server space and ip form the college so that we will not have to create our local server which would be local computer. It is not so efficient because as the LAN connection disconnect or the laptop goes off power , the all data will get destroyed until the connection gets re-established.

If will get space form the college , we will try our best to extend our project so that information about academic should be focussed at one place.

CHAPTER 5: CONCLUSION

This project will be LAN based university academic system which aims to provide educational content at one place. In addition, the development of the web and its application on educational and training environments has led to the development of new learning theories and philosophies.

The increasing demand and the use of the computers in universities with computer labs in the late 1960s that will generate the requirement to give very high-speed connection with all computer systems. So the idea of LAN came into play. A report given in late 1970s from Radiation Laboratory from Lawrence which gave detailed growth of their project "Octopus" network which will help to identify that situation.

Also we know that LAN transfer data at a very fast rate than other connections. Also they have capability to connect with other devices. It is sometimes called as WAN. One major importance is that devices connected to LAN machine can access data from anywhere which become very easy to all users at any instance of time.

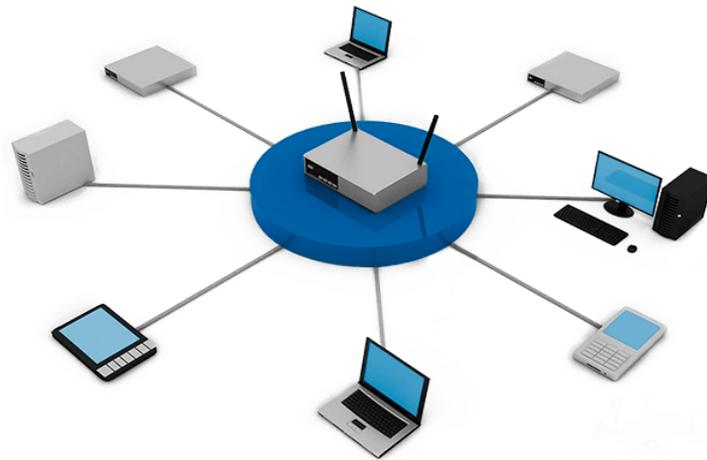


Fig 5.1 LAN system

If we will get success with this system then it would be a good source of information for the students as we know the type of chaos we face at the time of examination. We , the developer of the project are trying to make it possible for every student to make it happen and not to lose hope at the time of examination due to some limited data usage reasons.

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11. <https://www.inflibnet.ac.in/caliber2009/CaliberPDF/62.pdf>
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