

Android App for JUIT_OLX

Project report submitted in partial fulfillment of the requirement for the
degree of Bachelor of Technology

In

Computer Science and Engineering

By

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Candidate's Declaration

I hereby declare that the work presented in this report entitled “**JUIT_OLX**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science & Engineering** submitted in the department of Computer Science, Jaypee University of Information Technology Waknaghat is an authentic record of our own work carried out over a period from August 2016 to may 2017 under the supervision of **Dr. Ravindara Bhatt** (Assistant Professor (Senior Grade)), department of computer science.

The matter embodied in the report has not been submitted for the award of any other degree or diploma.

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This is to certify that the above statement made by the candidate is true to the best of my knowledge.

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Dated:02 May,2017

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In performing our project, we had to take the help of our mentor, who deserve our greatest gratitude. We would like to thank you Dr. Ravindara Bhatt, Assistant Professor (Senior Grade) for giving us a very good guideline for project at some stage in numerous consultations.

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ABSTRACT

OLX (online exchange) which is fast growing ecommerce business to exchange used product online with the help of the Internet.

The purpose of this application is to aware students about second hand shopping which is very beneficial and how they can build application on android studio in which front end is implemented using xml in which we create the layout of our application and we use java to implement the back end part to connect the services with each other .

We use SQLite database which is built in database in Android Studio in which we take images ,personal details as a input and we also validate the candidate by comparing user name and password through our database i.e. SQLite. In this application user can sell their second hand products or buy second hand product using our application within the campus. Buyer get the seller mobile number from this application and contact the seller to buy the product. Seller uploads their product in this application and gets many buyers for the product.

Chapter-1

INTRODUCTION

1.1 Introduction

Electronic commerce refers to the use of an electronic medium. E- Commerce provides the chance of commerce or shopping for the goods/items associated services over a network.

The Internet provides traders to spreading out their retailers into infinite vary of websites [1], and together gave the advantage to shoppers to buying the items of assorted categories across all sites, the advantage is not entirely restricted to buying any time, but it together embrace to buying anywhere, using a mobile device for E-commerce has become associate alternate [2].

It is a platform that establishes the association for communication between vendor and emptor, several time communications is created directly from emptor and vendor. People wants to save more and spend less, second hand shopping is way for people to buy same product in less price. If a person wants to sell their items/goods online then smart phone with an app connecting to the selling platform, then take a photo of a product and write some description of product related to stuff, quality etc and post it online

OLX stands for online exchange, where we post the images if we want to buy to sell the product. We can browse it with in a college, it will help us to avoid the hassles of shipping and stuff and we can easily buy or sell the product in a meeting, and it will also help us in term of time and money.

1.2 Problem Statement

E-commerce provides an easy way to sell or buy products, but there is a lot of competition because of multiple e-commerce sites. When people open the app, they expect to find items very quickly and easily that they want to buy. The purpose of an e-commerce app to help people to finalize the product that they want to buy.

The challenge is to build electronic commerce application in such a way that is easy to use, so that customers easily learn how to use it.

1.3 Objective

This project aims to providing an interactive app to the students by using android studio, so that student buy second hand books at low price & if they want to earn some money, then they sell some items that are no longer use for them by posting image on the app.

1.4 Methodology

We are using android studio 2.1.2 for implementing the android app.

Requirement analysis –

Firstly list down the requirement that app required, then analyze the tool for developing app and then install the software (android studio 2.1.1).

UI designing –

User Interface (UI) for mobile application can create the look and feel of the app. Make use case, e-r diagram and flow diagram and work on it so that we get best result by user. This is a multistep process with its own review stages. The end result is visual direction and blueprints that inform of final product and how the interaction should feel, move and flow. This is to be done by using xml in android studio by creating activity.

Coding-

Start developing functionality by implementing back-end processes.

Testing –

Test the functionality of app so that we see how easy it to be use & learn, how it to be work by doing-

Usability testing

Performance testing

Integration testing

1.5 Organisation

In Chapter 1 we show the introduction, objectives, problem statement and methodology. In chapter 2 we have done the literature survey for our project. In chapter 3 we design system architecture, use case diagram, ER diagram. In chapter 4 we show the result of testing for our application. In chapter 5 we write conclusion and future scope of the project.

Chapter 2

LITERATURE SURVEY

2.1. Supply Chain Management

Supply chain management is the effective management of production chain activities to lift customer value and achieve a feasible competitive advantage. Store chain activities cover everything from item development, sourcing, generation, and coordination's, and in addition, the data systems needed to correlative these activities [1].

The concept of Supply Chain Management is based on two core ideas. The first is that for all intents and purposes every item that reaches an end user represents the cumulative effort of multiple associations. These associations are referred to collectively as the supply chain.[2]

The second idea is that while supply chains have existed for a long time.[3]

It is the effective management of store network exercises to expand client esteem and achieve a down to earth upper hand. It speaks to a mindful exertion by the production network firms to create and run supply chains in the best and proficient ways that are available. Store network exercises cover everything from item improvement, sourcing, generation, and coordination's, and moreover the information frameworks expected to organize these exercises.

2.2 Internet Marketing and E-commerce:

2.2.1 Internet marketing

Internet marketing is about the selling of goods or providing utility online. It refers to the action and approaches that are used for retailing of the goods and utility online. Internet marketing approaches have web-designing, Search engine streamlining, E-mail marketing, online advancements, web journals. Internet marketing helps in pulling in customers as more

and more people have internet facility now-a-days. Internet is the widest channel of correspondence available for all sort of businesses therefore internet marketing allows us to drag in customers quickly.

2.2.2 E-commerce

Electronic commerce is about purchasing or trading of goods or services is done by electronic modes, for example, internet, mobiles, telephones ,fax machines, ATMs. E-commerce means paperless exchange of business data. E-commerce uses strategies, for example, open, relations, referrals, banner promotions. Electronic shopping, E-wallet money, online tickets, texting are form of the work that is done by application related to e-commerce.

2.2.3 Relationship between internet Marketing and E-Commerce

E-commerce and Internet marketing have established its place in the realm of automation. The fame of any business at today's time is unequivocally dependable on Internet retailing and additionally e-commerce. Thus online business demands both Internet marketing and E-commerce they together deals with online exchanges. Internet retailing is a sub part of e-commerce. Internet retailing is same as Electronic commerce online marketing or e-commerce website business. Both internet retailing and e-commerce is feasible to the customer all day, every day and is inexpensive method for advancing work. Internet marketing is contains many working architecture. It is totally done through e-commerce business architecture where merchandise and ventures are sold directly to consumers to other consumer (C2C), businesses (B2B) or from consumer (B2C).

2.3 E-Commerce

E-commerce trading is the purchasing and offering of products and ventures over an online system, basically the internet. Commerce has advanced throughout the hundreds of years. Preceding advancement of cash it was the basic "bargain prepare" where things could be traded, say drain for grains. The updating of cash carried in it, the idea of a "commercial

server." In an economic center, E-commerce is capacity of 4 Ps – promotions, Price, Place and Products. All these four terms assures an essential part of an exchange to happen. Different combinations of 4Ps decide different types of E-commerce. Once the Economic server shows, a couple of clients understood that every person should be prepared to pay extra in the function that they could convey products at the client's door. A very less probation on Price and Place explains the ease of getting products on their door. This idea makes the clients and accordingly, the idea of road traders was presented.

2.3.1 Type of E-Commerce

Business-to-Business (B2B):

B2B exchanges is done on the very high extent between technologists makers, accomplices, and dealer or between companies. B2B determines the full extent of web based work that is done by the two associations. Among different exercises, B2B web based business incorporates buying and acquirement, provider administration, inventory administration, channel administration, deals exercises, installment administration, and administration and support. The outside marked organizations are anxious to take full preferred standpoint of the developing Indian market and are attempting to make advertise for their items. A portion of the key B2B trades in India are tradeindia.com, matexnet.com, Alibaba.com, AuctionIndia.com, Indiamart.com, TeaAuction.com, MetalJunction.com, [Chemdex \(www.chemdex.com\)](http://Chemdex.com), [Fastparts \(www.fastparts.com\)](http://Fastparts.com), and [FreeMarkets \(www.freemarkets.com\)](http://FreeMarkets.com)etc.

Business-to-Consumer (B2C):

B2C exchanges occur specifically between business foundations and consumers. Despite the known facts that business-to-business exchanges have more influence in online business model, a share of internet business incomes in developing nations like India is growing from business to consumer exchanges. Business-to-Consumer online business alludes to trades amongst businesses and consumers, e.g., Amazon.com, Yahoo.com and Schwab.com [4].

Consumer-to-Consumer (C2C)

C2C locales don't shape a high part of online work. Main observing illustrations are the closeout results. Mainly, in the event that somebody has something to offer, then he gets it recorded at bartering destinations and others can offer for it. Consumer-to-Consumer trades include exchanges between and among consumers. These trades could possibly incorporate outsider contribution. Different exercises include: grouped promotions (e.g., www.numberoneclassifieds.com), diversions (www.heat.net), employments (www.monster.com), Web-based correspondence (www.icq.com), and individual administrations (e.g., Yahoo! Personals, webpersonals.com).

Consumer-to-Business (C2B):

Consumers can gather as one to shape and present themselves as a purchaser gathering to businesses in a consumer-to-business relationship. [4]

2.4 Concept of Second Hand Shopping

Buyer–seller association is basic in individual cooperations (e.g., yard deals) as well as on Electronic exchanges. Thus instance, on its location, eBay urges valuable purchasers have interest in purchasing then contact the merchant and have ask their query replied before making an purchase or offer. (Brough and Isaac, 2012,page 80) By that sorts of purchasing there is typically an outsider included: a stage. A shop, a reasonable, some place individuals can discover a place to offer and a place to purchase.

The stages that build up the association amongst buyers and sellers can contact in that way every person deals with the exchange, albeit ordinarily the correspondence is done straightforwardly through the seller to the buyer. Notwithstanding, the stage is a standout amongst the main imperative parts of the exchange, as the channel makes it all conceivable [5]. What's more, this server is one of the well established of explicit enthusiasm to purchaser. (Guiot and Roux, 2008, page 65) According to Mitchell and Montgomery, as of late, some used products stores have endeavored to deal with their image (Mitchell and Montgomery, 2010, page 96). This process in building a brand brings about making it less demanding for the buyer to comprehend what sorts of item are accessible at the stage. In this

way, the client will probably comprehend the spots they are probably going to towards a stage originated from and their value run, and these credits joined add to building faithfulness towards a stage [5].

2.5 SWOT ANALYSIS

Strengths, weaknesses, opportunities and threats (SWOT) analysis is a measures that helps business managers to determine the strengths, weaknesses, opportunities and threats in any business enterprise.

Condensing: SWOT, Strengths, weaknesses, openings and threats; EFE, outside variable assessment; IFE, inward element assessment; SPACE, key position and activity assessment; QSPM, quantitative vital arranging framework.

Existing or described issues, either for a settle business or for another business (USDA, 2008; Nouri et al., 2008). Specifically, SWOT is vital and genuine models that make sense of what a business can and can't do, and furthermore its potential open entryways and dangers. The strategy for SWOT examination is to take the information from a natural examination and separate it into inward (qualities and shortcomings) and outside issues (openings and dangers). At the point when this is done, SWOT examination makes sense of what may help the firm in satisfying its objectives, and what blocks must be overcome or restricted to fulfill the pined for results (Singh, 2010). In any case, completing a SWOT examination of the property business is the underlying stage in essential masterminding SWOT Analysis

Strength –

1. Easy availability of item that the consumer demands at good cost.
2. Easy design android application with rich and colorful listings with pictures and videos.

Weakness –

1. Some students post fake ads.
2. No assurance of quality.

Opportunity –

1. Students who want to buy can buy the products according to their need.
2. Sellers get millions of buyers so they can sell their products with good benefit.

Threads:-

1. Ebay
2. Quicker
3. OLX
4. Home Shopping 18

2.6 Android

It is a mobile operating system which is created by Google on the Linux kernel for the touch screen device such as mobile and tablet. It consist of manipulation on screen objects, with additional feature of virtual keyboard for entering the text .It has functionality of real world actions ,touch gestures such as pinching , tapping, swiping ,

Before portraying the Android application essentials, the Android OS design will be clarified. There are diverse parts in the Android OS.

- Applications: There are distinctive center applications in view of Java, for example, email customer, maps, programs, and so forth
- Application Framework: Developers could take advantage of their access to the framework APIs used by the core applications. It makes the components reuse easy.
- Libraries: A number of different libraries based on C/C++ will be used by many of the system's components.
- Android Runtime: There are various center libraries which give the functionalities of the center libraries of the Java. The Dalvik VM gives the gadget the capacity of running numerous virtual machines. It depends on Linux Kernel for a portion of the functionalities.
- Linux Kernel: It is an abstraction layer between the hardware and whatever is left of software stack. A few functionalities of the bit are threading, low-level memory overseeing, prepare overseeing, arrange stack, and so forth.

All the mentioned components, with some more examples of each, have been shown on Figure 2.2 [15].

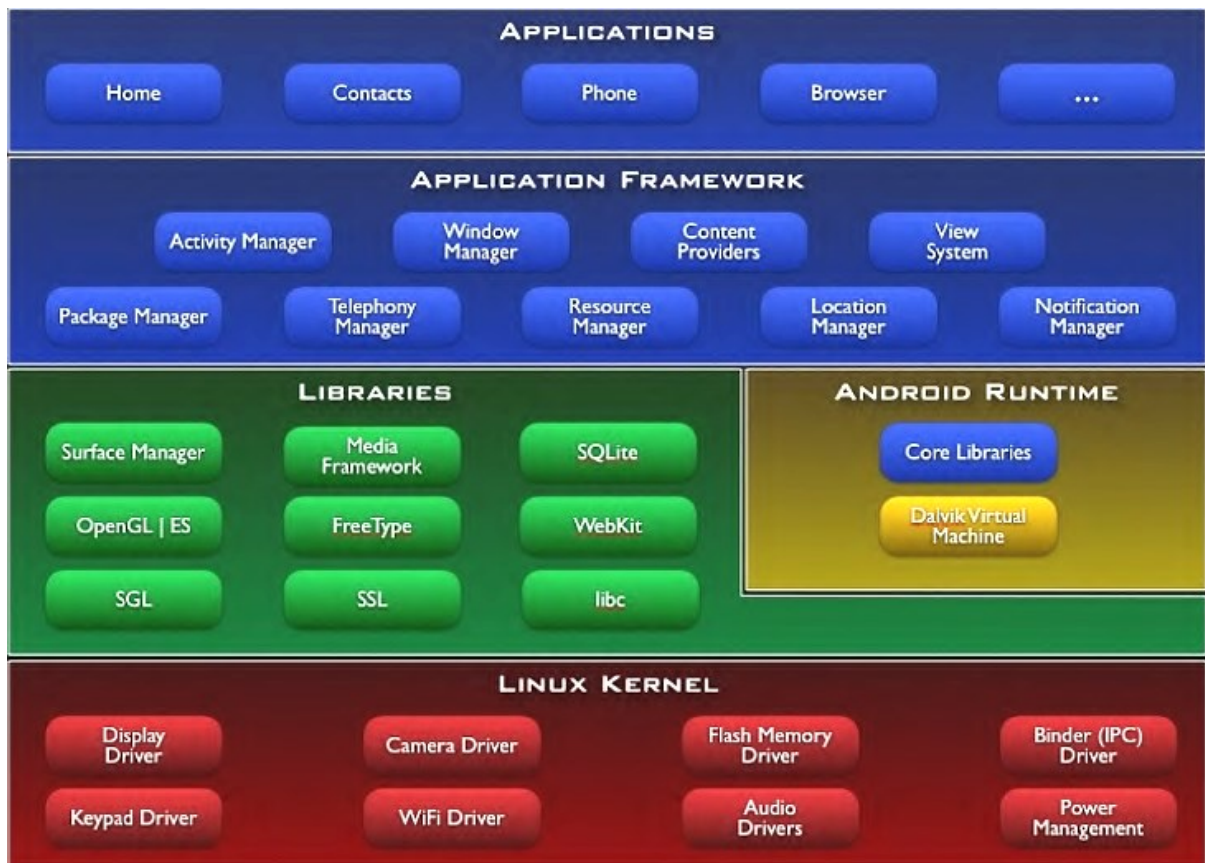


Figure 1.shows the Architecture of android operating System [22]

In the demands of having some data about the system's architecture, the application components could be presented. They are building blocks which are necessary in the application and are diverse passage points for system to enter the application. The following are distinctive types of components and clarification of their correct part in the application's general conduct.

- Activities: Different activities could all work together to improve an application's usefulness, yet they are as yet autonomous from each other.

An application could begin some of other application's exercises on the off chance that it has enough benefit to do as such. Every action is actualized as a subclass of Activity class and accompanies a UI which is fundamentally a solitary screen.

The going with diagram exhibits the basic state methods for an Activity. The square rectangles address callback strategies you can execute to perform operations when the Activity moves between states. The shaded ovals are noteworthy states the Activity can be in. [17]

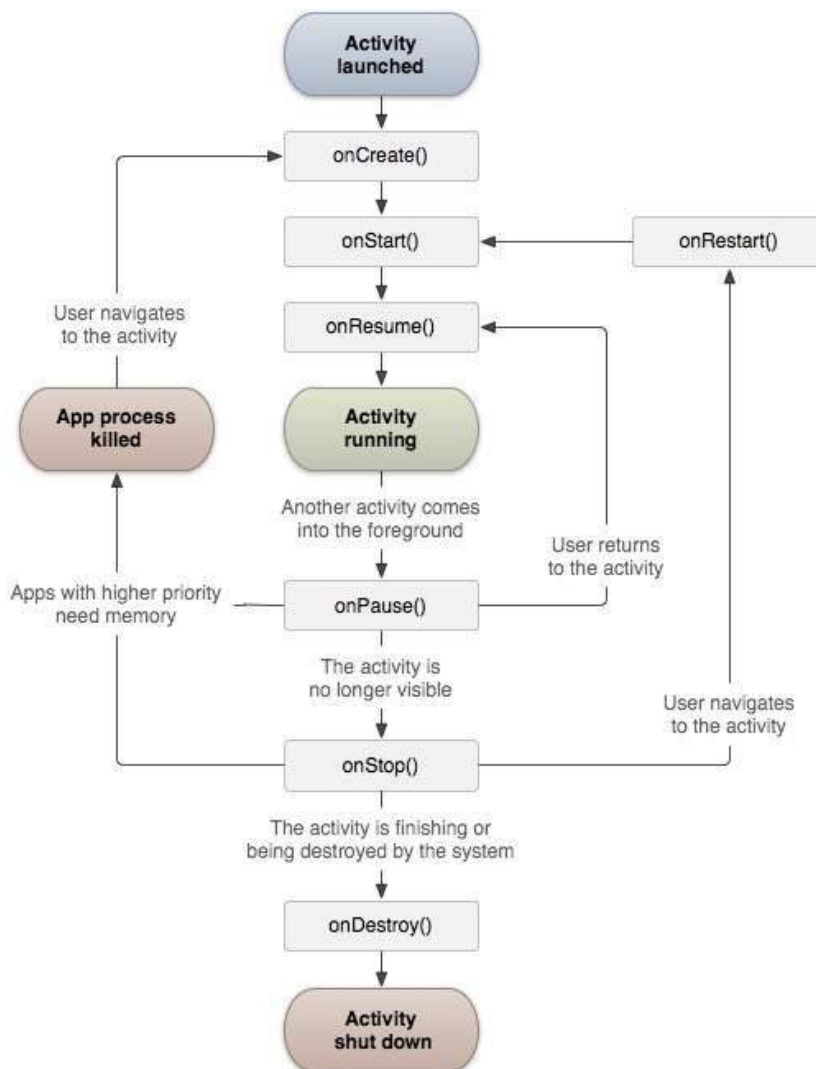


Figure2. Describe the Activity Life cycle of android activity[23]

□ Services: Conversely with exercises, a service does not accompany a UI. Instead is going on that a segment like an action could begin a service and let it keep running out of sight, collaborate with it by restricting itself to it or make it perform for remote procedures. Each service is actualized as a subclass of Service class and could be either made with startService() or bindService(). In Figure 2.4 distinctive life-cycle of the specified services has been appeared [18].

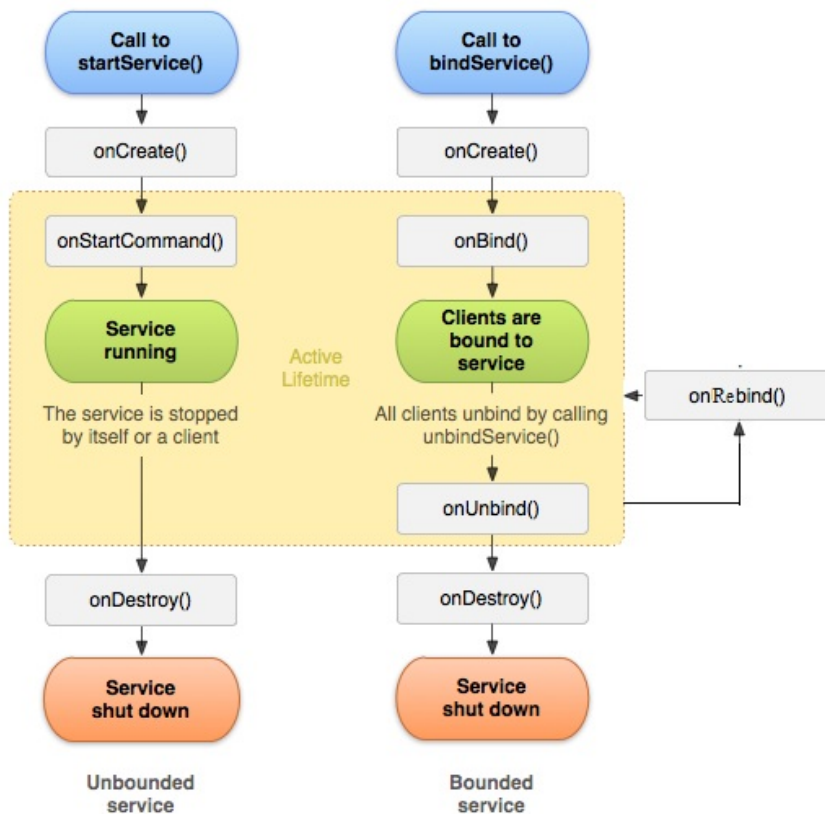


Figure3. Tells about the service life cycle of activity[24].

□ Content providers: With the help of content providers, applications can access and modify the shared or private put away data in any steady stockpiling area in which they have enough get to benefit to. For example dealing with the data put away in the document framework, SQLite database or on the web. Each substance supplier is executed as a subclass of Content Provider class and actualizes a standard bundle of APIs that empower alternate applications the capacity of performing exchanges.

□ Broadcast receivers: The broadcast receivers are intended to do an extremely negligible measure of work, and are only a door to different parts. They react to framework wide broadcast declarations and notwithstanding the way that they don't show a UI; they may demonstrate a status bar notice to educate the client about the broadcast occasion event. Each broadcast recipient is actualized as a subclass of Broadcast Receiver class and is conveyed as an Intent class protest. [16].

Another very important file of an Android Studio is an XML file known as “Android Manifest”. It principally consists of the application's unit which is primarily as a result of the system demands to establishes round the existence of a unit, prior to having ability to start out it. The manifest consist of some extra knowledge such as approves the application demands, the minimum API Level the application demands, each software or hardware component the application uses or wants, API libraries required through the application and continues. [16] Apart from the source code, there is another part in an Android application, which is known as Application belongings. It consists of everything that is analogous to the visual presentation of the app. Dividing the main feature from the real source code has two profits.

□ It makes it easier to update totally different characteristics of the application while not customizing the source code. XML files that are designed for various layouts, might be simply modified for object.

□ Alternative resources could be used for different device configurations. Several languages could easily be handled by referencing different resources for instance. [16]

Chapter -3

SYSTEM DEVELOPMENT

In this chapter we design our application using use case diagram, ER diagram and System architecture.

3.1 System Requirement -

We required hardware and software for building app.

Software requirement-

- Android studio
- JDK (java development kit) 1.7

Hardware requirement-

- CPU : 22GHz processor and above
- RAM : 4GB or above
- OS : window 7 or above

3.2 System design –

Design is the technique of growth in specification. Machine layout is the innovative act of invention, developing new inputs, a database, offline documents, procedures and output for processing enterprise to fulfill an enterprise goal. Goal of system design is, user understand easily how to use the application. gadget entails diverse rangers as:

- Statistics entry
- Records correct
- Records deletion
- Processing
- File generation

Architecture –

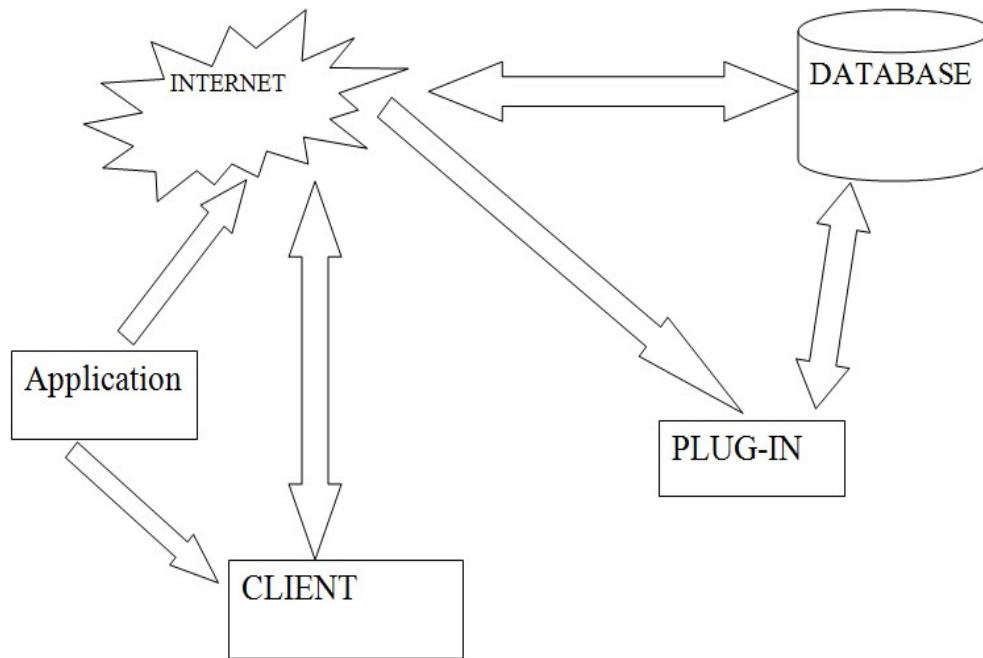


Figure4. Tells about the Architecture of the application

Our app is based on client server architecture, in which client as a user use the app and click on the button for proceed further, but when user click on button then request go through database. If there is wrong data insert by user then app is not open further and if data is correct then client/user proceed further.

Our Role and our Panels in Project -

Our function in this project is to do studying, designing and coding. We are involving in every sphere of this undertaking however my modules are, ADMIN control in which admin can make setting he can edit or delete the contents. All the CURD operation plays and manages by using me. We manipulate what proven to the user, consumer MANAFEMENT, where user can visit and look at all statistics in the utility.

There are three panels in my project Admin, User, Security Sections:

- Admin section
 - Admin management
 - Data management
 - Report management
 - User management
- User section
 - User management
 - View products
 - View seller
 - View location
- Security section

Secure admin section from unauthorized users.

Use Case Diagram-
Admin-

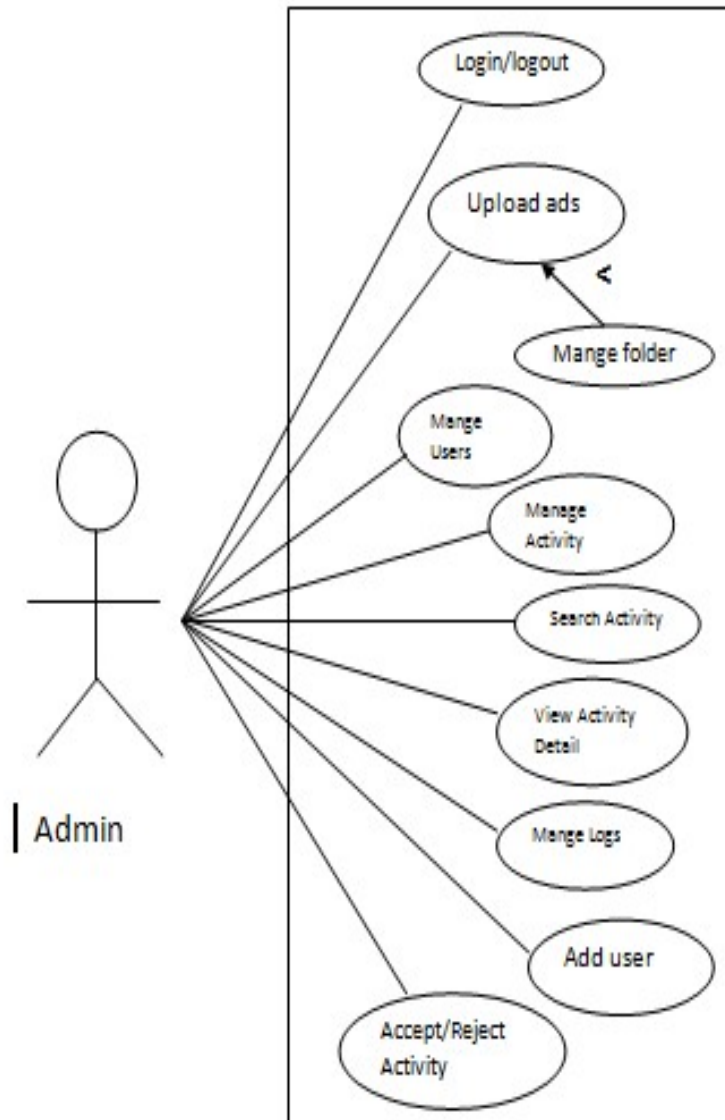


Figure5. shows the use case diagram for admin

Seller-

1.2 Seller

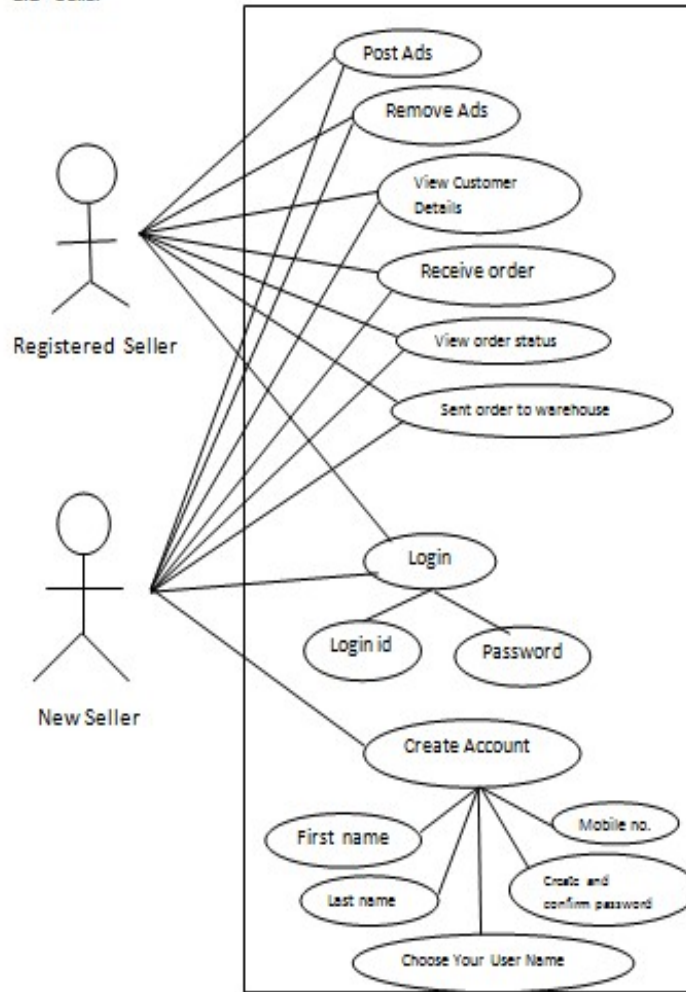


Figure6.shows the use case diagram for seller

Buyer-

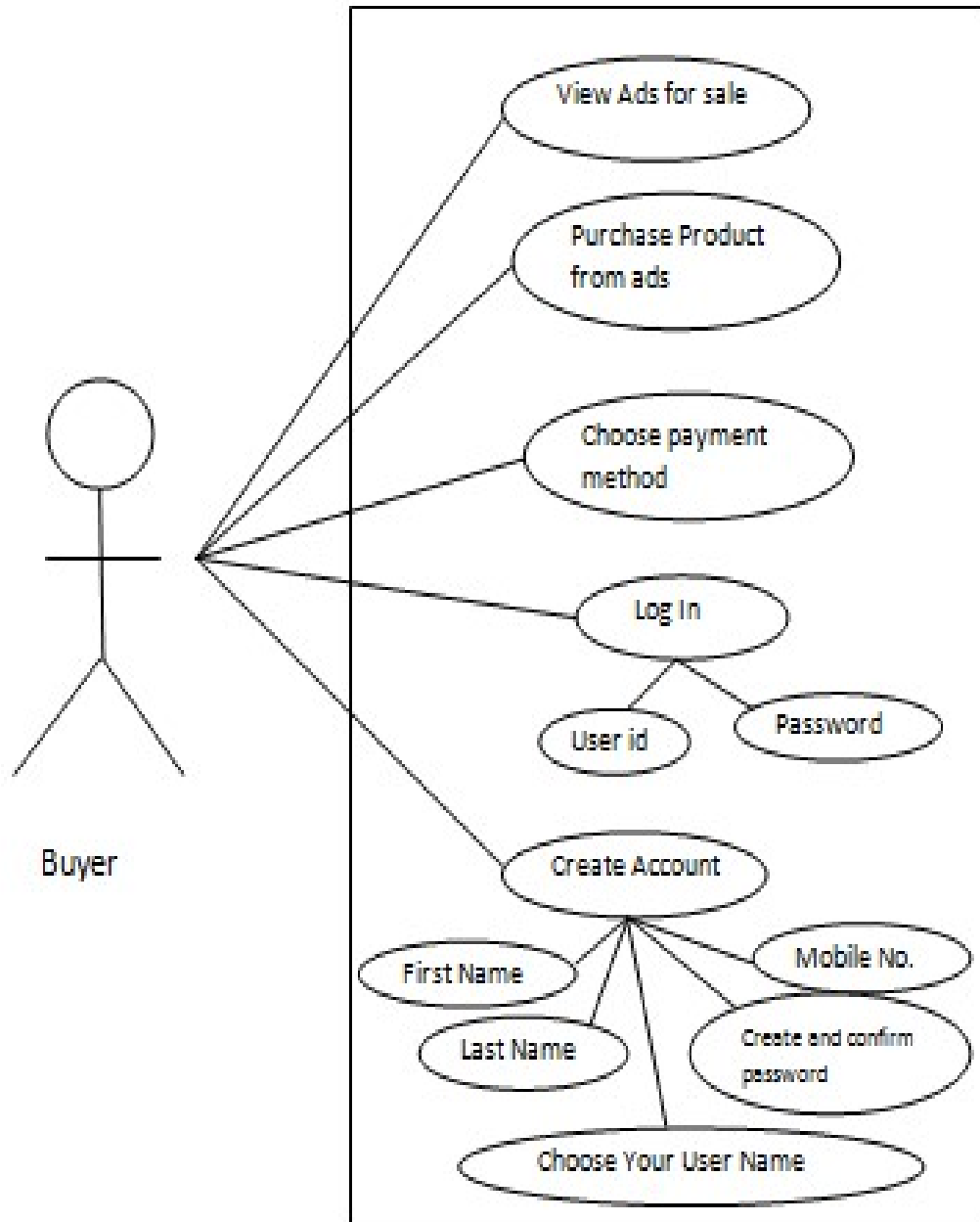


Figure7. shows the use case diagram for buyer

E-R Diagram of modules –

ER-Diagram is a visible illustration of statistics that describe how facts related to each different. The main additives of ER models are entities (things) and the relationships which could exist amongst them, and databases.

Entity –

An entity may be defined as a thing capable of an independent existence that can be uniquely identified.

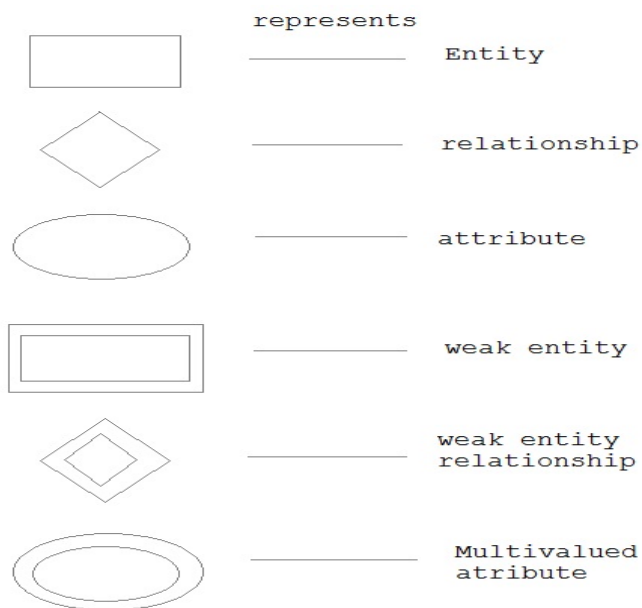
Attribute –

A characteristics of an entity.

Relationship –

An association between entity.

Symbols used in ER-diagram -



ER Diagram –

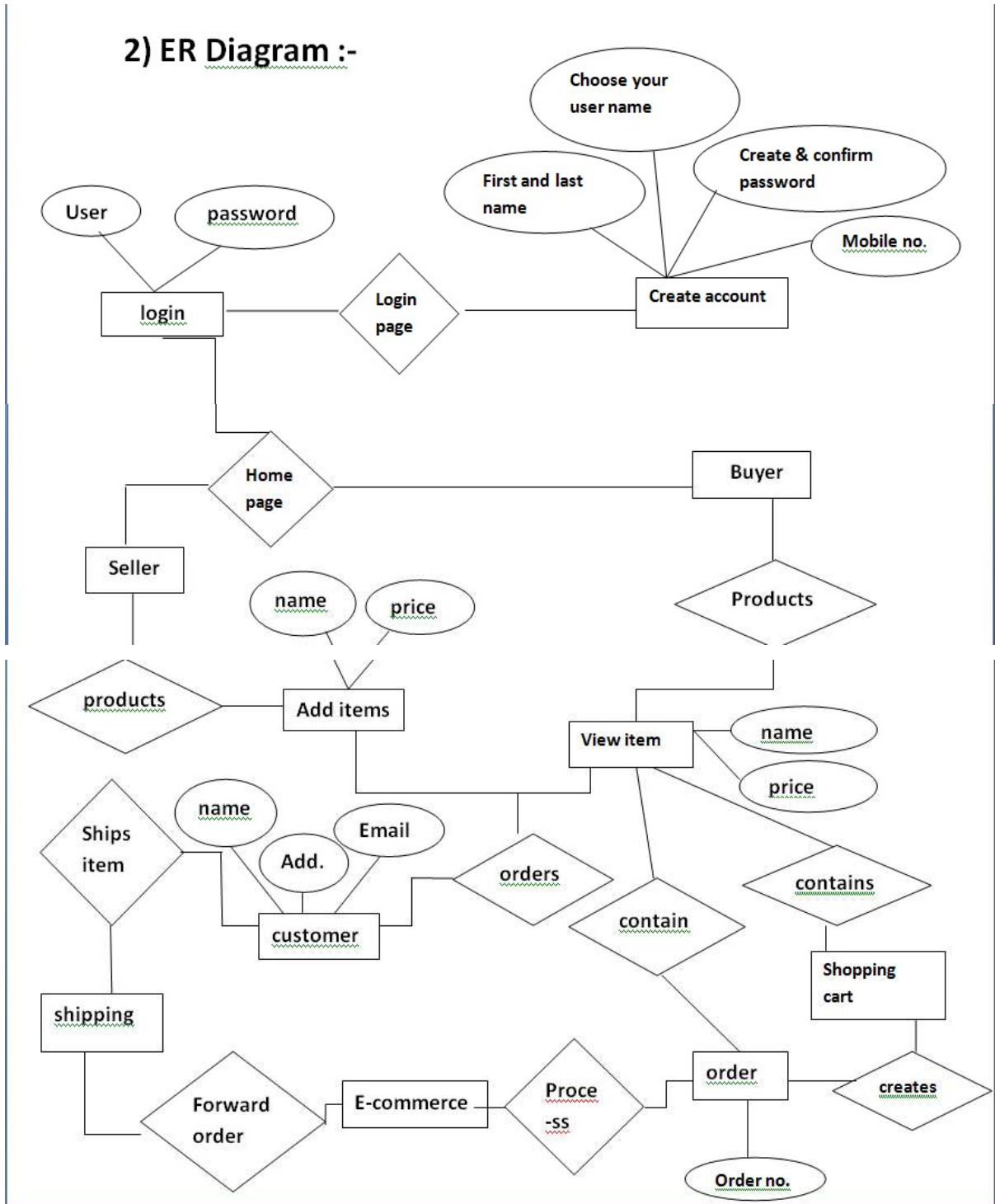


Figure8. shows the ER diagram of the application.

Chapter 4

PERFORMANCE ANALYSIS

4.1. Introduction to Software Testing

Software testing is a method to recognize the rightness, summit and nature of made PC software. It joins a game plan of activities driven with the objective of finding missteps in programming so it could be balanced before the thing is released to the end customers.

In straightforward words, software testing is a movement to watch that the software framework is sans deformity. Software looking at is an action to test regardless of whether the genuine results fit the normal outcomes and to ensure that the software machine is sans mistake.

Software testing moreover engages to choose slip-ups, hole or lacking necessities contrary to the honest to goodness necessities. It can be either done physically or the usage of electronic equipment. Some seize the opportunity to expressing programming testing as a white box and disclosure testing.

Why testing important?

Testing is very much needed because it identified the bugs in the software .So, it reduces the risk of failure. Application creepy crawlies can possibly thought process financial and human misfortune, history is loaded with such examples[16].

- China aircrafts Airbus A300 crashed in light of a product collapse on April 26, 1994, executing 264 safe life's.

- In 1985, Canada's Therac-25 radiation treatment machine failed because of programming system bug and detected destructive radiation evaluates to patients, leaving three individuals inert and seriously affects 3 others.

- In April of 1999, a product program worm provoked the disappointment of a \$1.2 billion armed force satellite dispatch, the most costly mishap in records.

- A number of the Amazon's dealer shops saw their item rate is diminished to 1p in view of a product program glitch. They were left with substantial misfortunes.

4.2 Type of software testing

Commonly testing is divided into three groups.

- Functional Testing
- Non-Functional Testing or Performance Testing
- Maintenance

Functional testing:-

Functional testing is a trying in which functionalities of a product are tried by giving distinctive data sources.

Functional testing involves:-

- Evaluate how modularity is supposed to behave.
- Taking data as a input to check the modularity.
- Running the predefined test cases.
- Comparing actual results with expected results.

It includes-

- Unit testing
- Integration testing
- User acceptance testing
- Localization
- Globalization

Non-functional testing of performance testing:-

Non-function testing considers the outer conduct of the product how well the framework functions rather than what the framework does.

It examines documented and undocumented non functional requirements such as-

- Performance
- Load
- Volume
- Scalability
- Usability
- So on

The objective of non-functional testing should be based on measurable requirements.

Maintenance:-

- Regression
- Maintenance

Test an Ecommerce application

To hold the integrity of the E commerce system, checking out turns into compulsory. It allows inside the prevention of mistakes and provides fee to the product by means of ensuring conformity to consumer requirements.

The e-commerce application testing ensures that everyone the pages of the internet site are very well examined all of the e-commerce transactions are cozy and confirmed and the utility may be now given to give up users to apply. The e-commerce applications are very vital for agencies. The applications promise to offer the fast transport and at very competitive charges and are in big call for always [16].

The goal of testing is to ensure

- Software reliability
- Software quality
- System Assurance
- Optimum performance and capacity utilization

In our project we are only focused on

- Usability testing
- System integration testing
- Performance testing

4.3 Usability Testing

Usability testing gives direct input on how real users use your website, application, software. Usability testing is a type of software program testing where, a small set of goal end-users, of a software program system, use it to reveal usability defects. This trying out particularly focuses on the user's ease to apply the application, flexibility in dealing with controls and capacity of the gadget to meet its targets. It is also called consumer experience testing.

This checking out is recommended during the preliminary design phase of SDLC (system development life cycle), which offers extra visibility on the expectancies of the customers. Purpose of this to satisfy users and it in particular concentrates on the following parameters of a system[17]:

Test cases-

test case ID	test title	Description	test case step	expected result	actual result	status
TC01	Login page	test how easy it to use or learn	1. enter user name	user name is enter in correct place and correct user name is entered.	user name is correctly entered in right place.	pass
			2. enter password	user enter correct password and in correct place	correct password is enter in correct place	pass
			3. click on login	login button work correctly	next page is open	pass
TC02	Sign up page	how easily we use it by adding information and use submit button	1. enter e-mail	correct e-mail is entered in correct place	user enter correct e-mail in correct place	pass
			2. enter phone number	correct phone-number is entered in correct place	user enter correct phone number in correct place	pass
			3. name	name is entered in correct place	user enter name in correct place	pass
			4. password	password is entered in correct place	user enter password in correct place	pass
			5. confirm password	right password is entered in right place	user enter right password in right place	pass
			6. submit button	submit button work correctly	submit button work properly and open next page	pass
TC03	Home page	how easily we choose correct icon for seller or buyer	1. buyer	choose correct option for buyer	user click on buyer	pass
			2. seller	choose correct option for seller	user click on seller	pass
TC04	Main activity screen	how easily we choose the image for buying and how easily we scroll down/up	1. select image	select image that you want to buy	user select image	pass
			2. scroll down/up	no problem in doing scroll up/down	scroll up/down work properly	pass
TC05	Seller detail screen	how easy to learn,to get seller detail	1. show option	show option provide seller details	user get seller details by clicking on show option	pass
TC06	Product detail screen	how easily we enter the product details	1. name	user name	user correctly enter user name	pass
			2. location	place name	user enter place name	pass
			3. product discription	product name and other discription	user enter product discription	pass
			4. price	amount	user enter amount	pass

Table1. Shows the test cases of usability testing

4.4 System Integration Testing

In this phase of testing, individual modules are combined and tested as a group. Data transfer between the modules is tested thoroughly.

System Integration testing is described as a sort of checking out performed in an integrated hardware and software program surroundings to verify the behavior of the complete gadget. It is a trying out conducted on a complete, included system to assess the machine's compliance with its specific requirement.

Approaches of Integration Testing:

- Big Bang Approach
- Incremental Approach:
 - Top Down Approach
 - Bottom Up Approach
 - Sandwich Approach - Combination of Top Down and Bottom Up

Big bang approach:-

Once all the units are combined together, and then the functions are tested.

Advantage-

Feasible for limited system

Disadvantage-

Error detection is hard.

In view that the integration checking out can start only after all the modules are designed, checking out crew can have minimum time for execution in the trying out stage[18]

Incremental Approach:

In this technique, testing is ended by combining at least two functions that are consistently same. At that point the option same functions are included and analyzed for the best possible working. Framework keeps until the greater part of the modules are joined and tried viably.

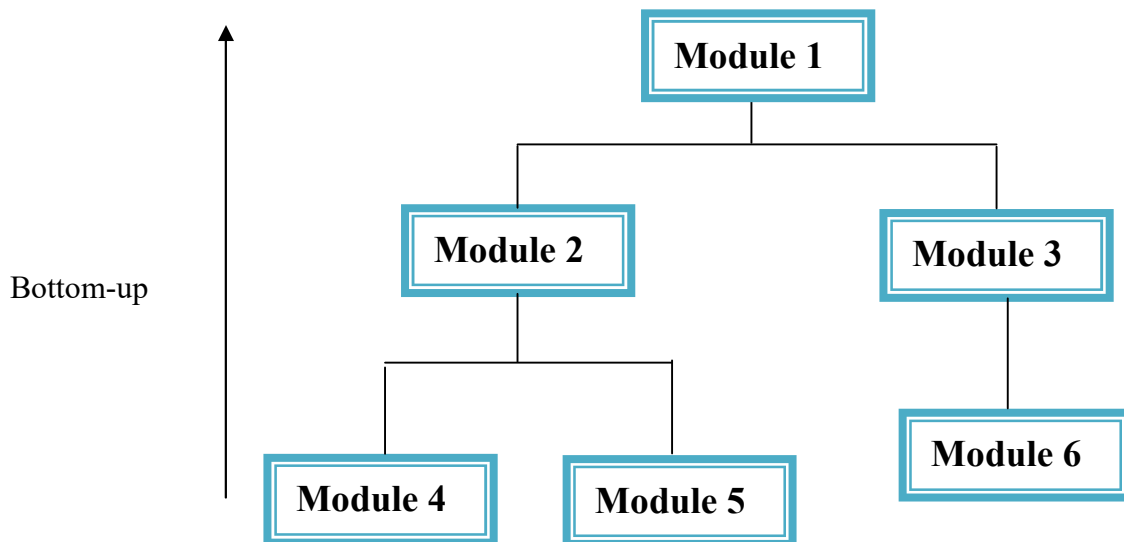
There is two methods for doing incremental approach

- Bottom –up
- Top-down

Bottom-up integration:-

In this technique, each function at low level is analyzed with higher functions till all functions are evaluated. Searching has done by the drivers.

Drivers – invoke the function to be tested.



Advantage-

- Error identification is simple

- No diffusion of time delaying for all functions to be produced dissimilar Big-bang technique.

Disadvantage-

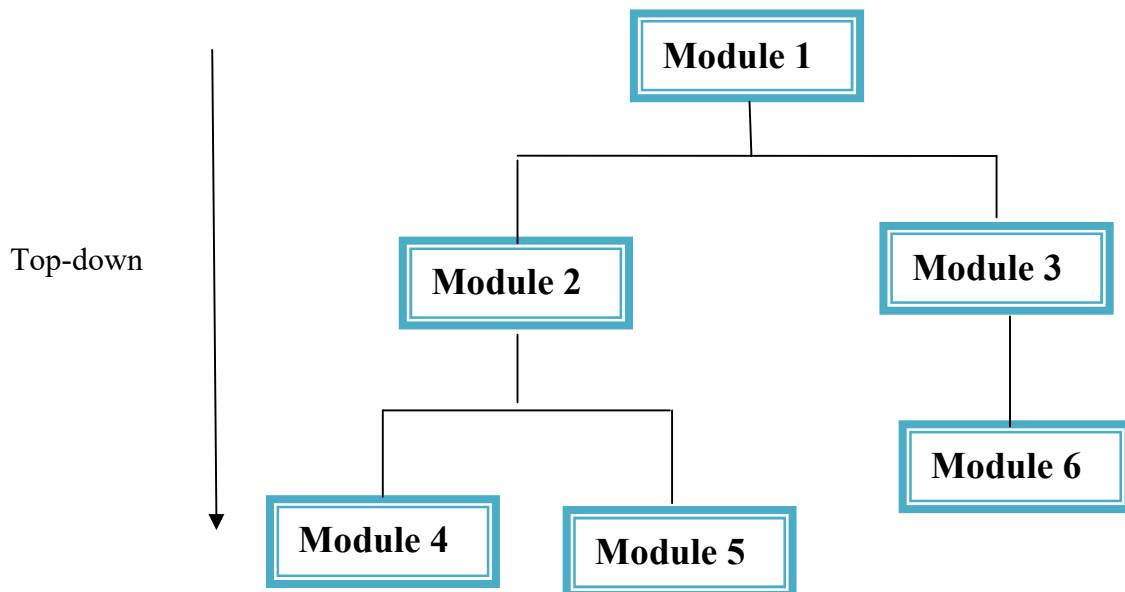
- Essential functions (On the upper level of software architecture) that organize the glide of utility are evaluated closing and can be doubtful to bugs.
- Predefine prototype isn't essential.

Top down Integration:

Testing in top to down technique, is done from top to down following the manage control of the software program device.

Requires assist of stubs for checking out.

Stubs- e Module Test call under this.



Advantage-

Error detection is simple mostly to gain a predefined prototype. Important Functions are examined on precedence; foremost layout error could be construct and glued first[18].

Disadvantage-

- Required more sub modules.
- Modules at minimum degree are evaluated not properly.

Test cases:-

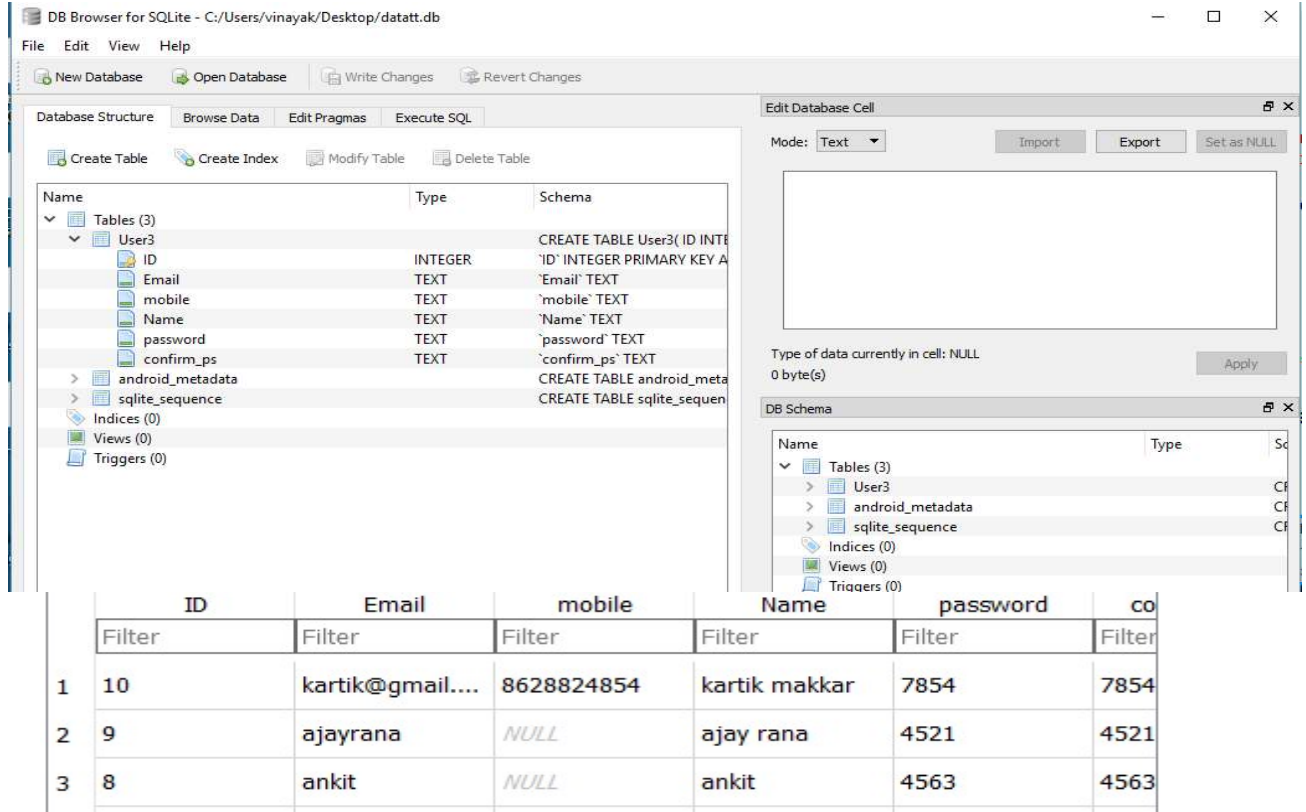
test case ID	test title	description	test case step	expected result	actual result	status
TC01	interface link between login and home page	enter the detail and click on login page	1. type valid user_name			
			2. type valid password			
			3. click on login button	user is logged in to home page	logged in to home page	pass
TC02	interface link between signup and login page	enter th detail in signup page and click on submit	1. type e-mail			
			2.type phone number			
			3. name			
			4. password			
			5. confirm password			
			6. click on submit button	successfully register and login page open	login page open	pass

TC03	interface link between home screen and main activity and product detail screen	click on the seller button or buyer button	1. click on buyer option	main activity screen is open	main activity screen open	pass
			2. click on seller option	product detail screen open	product detail screen open	pass
TC04	interface link between main activity screen and seller detail screen	click on the image in the main activity screen that you want to buy	1. click on image	seller detail screen is open	seller detail screen is open	pass
TC05	interface link between seller detail screen and home screen	by clicking on the go back option	1. click on show option	user get phone number	get phone number	pass
			2. click on go back option	home screen is open	home screen open	pass
TC06	interface link between product detail and main activity screen	enter the details and click on add button	1. enter the name			
			2. enter the location			
			3. enter product discription			
			4. click on choose option	if chosse allow then go to gallery and upload image and if choose deny then access denied	image is uploaded/access denied	pass
			5. click on add	image is added in home screen and home screen is display	image is added in home screen and home screen is open	pass
			6. click on p_list	home screen is open	home screen is open	pass

Table 2: shows the test case of system integration testing

Testing of content provider (SQLite database) using SQLite browser

Database is used to enter the personal details of an user. We check the database using SQLite browser and we find our table and entries are created successfully.



The screenshot shows the SQLite browser interface for a database named 'datatt.db'. The 'Database Structure' pane on the left shows a table named 'User3' with columns: ID (INTEGER, PRIMARY KEY), Email (TEXT), mobile (TEXT), Name (TEXT), password (TEXT), and confirm_ps (TEXT). The 'Edit Database Cell' pane on the right is currently empty. Below the browser, a table displays the data from the 'User3' table.

	ID	Email	mobile	Name	password	co
	Filter	Filter	Filter	Filter	Filter	Filter
1	10	kartik@gmail....	8628824854	kartik makkar	7854	7854
2	9	ajayrana	NULL	ajay rana	4521	4521
3	8	ankit	NULL	ankit	4563	4563

Table 3: Shows the table of database 1

4.5 Performance Testing

Software program performance testing is a technique for quality assurance (QA). It incorporates looking at software projects to assure they will complete pleasantly underneath their anticipated workload.

Capacities and ability bolstered by a product machine aren't the best trouble. A product program application's general evaluation like its response time, do make a difference. The aim of performance testing isn't generally to find error, however, to take away general performance bottlenecks

Performance testing is evaluating a product program's speed, versatility, steadiness

Why do?

General performance testing at is refined to offer partners with insights around their application concerning pace, dependability and adaptability. More prominent imperatively, performance testing reveals what should be ventured forward sooner than the item goes to commercial center. Without performance evaluation, programming is probably going to experience the ill effects of issues including: running moderate while a few clients utilize it all the while, irregularities all through exceptional working frameworks and terrible convenience. General performance testing will choose either or now not their product program meets speed, adaptability and dependability necessities underneath probable workloads. Programs dispatched to showcase with very low performance measurements because of not present or awful general performance experimenting with are plausible to advantage a terrible fame and neglect to satisfy foreseen salary wants. Likewise, undertaking basic projects like space dispatch bundles or presence sparing medicinal types of gear should be general performance analyzed to ensure that they keep running for an extended time allotment without deviations

Type of testing:-

Load testing

Stress testing

Performance bottleneck

Scalability analysis

Load testing-

Evaluates the application's capability to test underneath anticipated client loads. The goal is to select general execution bottlenecks sooner than the product application goes live.

Stress testing:-

Includes testing a software stress extraordinary workloads to companion how it handles high activity or information preparing. The goal is to know the breaking" purpose of a software.

Scalability analysis:-

The aim of this analysis looking at is to choose the program utility's viability in increasing up to help a blast on client stack. They empowers arrange ability expansion on your framework

.

Common performance problem

Mostly issues turn around speed, response time, stack time and unpalatable flexibility. Speed is as regularly as conceivable a standout amongst the most extraordinary basic characteristics of a utility. A direct running utility will lose restrain customers. General performance taking a gander at is done to make certain an application runs adequately quick to keep a customer's thought and interest.

Test the given list of commonplace performance problems and word how pace is a commonplace component in lots of it:

1. Very large load time

2. Less response time
3. Minimum scalability
4. Bottlenecking

1. Very large load time:-

Load time is ordinarily the underlying time that is used by an application to start. This must commonly be spared to a base. In the meantime as a couple bundles are unrealistic to make stack in underneath a moment, It should become underneath a few moments if achievable.

2. Less response time:-

Response time is the time it takes by the application from when a user inputs data into the application until the utility yields a reaction to that enter. Mainly, this could be snappy. Once again if a user needs to hold up too long, they lose intrigue.

3. Minimum scalability:-

A device experiences negative versatility when it can't manage the normal scope of clients or while it does no longer suit a sufficiently gigantic scope of clients. Stack testing have been done by the utility can deal with the normal wide assortment of clients.

4. Bottlenecking:-

Bottlenecks are obstructions in gadget which degrade average device overall performance. Bottle necking is whilst both coding mistakes or hardware troubles reason a decrease of throughput below certain loads. Bottlenecking is due to one defective section of code. The key to solving a bottlenecking issue is to discover the phase of code that is causing the sluggish down and try to restoration it there. Bottle necking is fixed by solving terrible either fixing poor running [19].

Test cases:-

Data requirement:-

User name:- User name must be unique.

Password:- password must be valid for give user name.

Item id:- item that is currently in stock may be used. Item should be selected at random

Test cases:-

test case ID	test title	Description	test case step	expected result	actual result	user think time	status
TC01	user login	login with user name and password	1. valid user_name				
			2. valid password				
			3. click on login button	home screen is open	home screen is open	2s	pass
TC02	user sign_up	enter the details of current user	1. enter e_mail				
			2. enter phone number				
			3. enter name				
			4. enter password				
			5. confirm password				
			6. click on submit button	user account successfully created and login page is open	message is display account is created and login page is open	6s	pass

TC03	home_screen	choose the option	1. click on buyer	main activity screen is open	main activity screen is open	2s	pass
			2. click on seller	product detail screen is open	product detail screen is open	2s	pass
TC04	product detail screen	enter the details of product	1. enter name				
			2. enter location				
			3. product discription				
			4. price				
			5. click choose image	select image from gallery and upload the image	image is selected and uploaded	9s	pass
			6. click on add	image is uploaded on home screen and home screen is display	home screen is display with uploaded image	1s	pass
			7. click on p_list	home screen is display	home screen is display	2s	pass

TC05	main_activity screen	choose the image that you want to buy	1. click on the image	seller detail screen display	seller detail screen is open	2s	pass
			2. scroll up/down	scrolling work properly	screen is scroll down/up properly	2s	pass
TC06	seller detail screen	get seller details	1. click on show button	seller number is display	number is display	0.5s	pass
			2. click on go back button	home screen is display	home screen is display	1s	pass

Table 4: Shows the test case of performance testing.

Performance Testing on Android Application using Jmeter

It is an open source testing software which is work only on jdk 1.6 or above. It is a java based application used for testing the mobile application and website. It is used for performance testing , regression testing etc.

1. Splash Screen

Thread Name	Thread Group 1-1
Sample Start	2017-04-26 02:29:56 IST
Load time	155
Connect Time	3
Latency	0
Size in bytes	83
Sent bytes	182
Headers size in bytes	83
Body size in bytes	0
Sample Count	1
Error Count	0
Response code	204
Response message	No Content

Table 5 shows the result of the main screen testing using jmeter

2. Login_screen

Sampler result	Request	Response data
Thread Name	Thread Group 1-1	
Sample Start	2017-04-26 02:29:56 IST	
Load time	91	
Connect Time	0	
Latency	0	
Size in bytes	83	
Sent bytes	182	
Headers size in bytes	83	
Body size in bytes	0	
Sample Count	1	
Error Count	0	
Response code	204	
Response message	No Content	

Table 6 shows the jmeter testing of login page

3.Main_screen

Sampler result	Request	Response data
Thread Name	Thread Group 1-1	
Sample Start	2017-04-26 02:29:56 IST	
Load time	155	
Connect Time	3	
Latency	0	
Size in bytes	83	
Sent bytes	182	
Headers size in bytes	0	
Body size in bytes	0	
Sample Count	1	
Error Count	0	
Response code	200	
Response message	Number of samples in transaction : 1, number of failing samples : 0	

Table 7 shows the jmeter testing of main screen

4.Seller_screen testing

Sampler result	Request	Response data
Thread Name	Thread Group 1-1	
Sample Start	2017-04-26 02:29:56 IST	
Load time	91	
Connect Time	0	
Latency	0	
Size in bytes	83	
Sent bytes	182	
Headers size in bytes	0	
Body size in bytes	0	
Sample Count	1	
Error Count	0	
Response code	200	
Response message	Number of samples in transaction : 1, number of failing samples : 0	

Table 8 shows the Jmeter testing of Seller screen

5. choose image screen from gallery

Thread Name	Thread Group 1-1
Sample Start	2017-04-26 02:29:56 IST
Load time	95
Connect Time	0
Latency	0
Size in bytes	83
Sent bytes	182
Headers size in bytes	83
Body size in bytes	0
Sample Count	1
Error Count	0
Response code	204
Response message	No Content

Table 9 Illustrate about the test result of Image screen

6. Upload the image into SQLite

Sampler result	Request	Response data
Thread Name	Thread Group 1-1	
Sample Start	2017-04-26 02:29:56 IST	
Load time	95	
Connect Time	0	
Latency	0	
Size in bytes	83	
Sent bytes	182	
Headers size in bytes	0	
Body size in bytes	0	
Sample Count	1	
Error Count	0	
Response code	200	
Response message	Number of samples in transaction : 1, number of failing samples : 0	

Table 10 Shows the testing of image upload screen

7. Seller Screen

Sampler result	Request	Response data
Thread Name		Thread Group 1-1
Sample Start		2017-04-26 02:29:56 IST
Load time		97
Connect Time		0
Latency		0
Size in bytes		83
Sent bytes		182
Headers size in bytes		83
Body size in bytes		0
Sample Count		1
Error Count		0
Response code		204
Response message		No Content

Table 11 shows the testing of seller screen

Chapter-5

CONCLUSION

5.1 Conclusion

Ecommerce business has become an important resource in today's times, thus Second hand shopping has gained importance not only from the business point of view but also from the customer's point of view. For the business point of view ecommerce android application has become a new opportunity and for the customer point of view it makes comparative shopping possible.

In this project, the user is provided with an ecommerce android application which can be used to buy used products. To implement we used android studio in which we used xml for designing part and java language for backend work. Database is designed using Sqlite i.e. built-in database in android studio.

5.2 Future Scope

In the future we can enhance its functionality as

- In future this project will be online.
- This project currently works within the college, but in future this project works as a wide area.
- In future, this project also provides a GPS system for locating the product location.
- In future, we can provide all facilities so efficiency can be proved.

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