CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

This chapter discussed briefly the project flow from introduction, problem statement, objectives of project and followed by the scope and limitation that description of the methodology. Each sub-topic relates each other in order to make the readers understand about the flow of the project

1.2 OVERVIEW

Whenever searching is done for a new house, the main focus is on the location. As location being a spatial entity we are using the advantages given by spatial databases for our application. The application provides the user to select any particular location and get information appropriately. Spatial data is data about location and space Spatial database is used in geographical information system. Different examples of spatial data are existing, but the Important example of spatial database is satellite image Member should be able to Member should be able to. satellite image earth system will act as a reference system. one more example of spatial database is medical imaging in which human body acts as a spatial frame reference. The aim of this project is to develop a prototype real estate listing service using Microsoft technology. This is a basic website where user can register then log in and manage their property. This website helps the process and removes the overhead documents. The availability of website makes the process more user friendly and makes it more effective. User can register post, buy, rent their property as well as know the rates of property in a zone. There are some important issues in developing the real estate web application. First, the search time should be minimum. This depends on 2

techniques. Second, the web application should give the services that both buyer and seller want. Third, the web application should have a friendly user interface.

1.3 Objectives

Real Estate is a field that has widely expanded and has provided a huge ground for scope to many users for finding desirable properties and for businessman. The users need appropriate properties and the entrepreneurs who contain this information help the users for accurate selection of properties. With the immense amount of profitability this concept holds for both the sides of the parties involved, the idea has caught fire. Initially, the overall real estate process was manual. But due to increasing facilities of Internet and due to the popularity of the concept, many web sites have come up which provide real-estate information to the users. These web sites guide the user through various properties and help the user to find the needed and available estates as per his/her requirements. Example of traditional web site

1. www.99acres.com

2. www.makaan.com

3. www.magicbricks.com

4. www.indiaproperty.com

5. www.commonfloor.com

These websites provide features like search property, add property and gives different offer which will be beneficial to user. But even with these features there are certain required aspects which make these sites limited. They are: 1. No search gives correct information about basic services available from chosen location like displaying the

distance of nearest bus stop, railway station, hospital etc. 2. No flexibility in information retrieval for e.g. listing houses that is within the 2Km radius of a location.

1.4 Problem Statement

In general, it's really hard to find perfect home for living in different place in Malaysia. The problem is, not everyone has that much time and money to search for home without any trusted agent. Although environmental change, shifting political climates, volatile markets, rising mortgage rates, and evolving technology trends are just some of the challenges customers are facing everywhere. Based on observations, customers often find anybody to ask about a place randomly without knowing the person. Possibly those people recently moved to that respective place or can be also a agent. Even though they can find the information they needed in the internet, but the source might not be as reliable as the truth. It could be an old information or scam for an example, changing an address or phone numbers. Those people can be anyone who does not have a license or permit issued by the Ministry of Housing and Local Government, Malaysia then simply get profit from clients and that become a problem to local housing agencies to argue with those illegal companies. Then by developing the app it will help clients to find the licensed realtor.

1.5 Existing System

The present system is not dunce proof and has certain drawbacks. Being a manual system the possible limitations and loopholes in the present system is large. Some of them are: -

1. Human resource The current system has too much manual work from filling a form to filing a document, delivering manifesto. This increases burden on workers but does not yield the results it should.

2. Thorny Job in current system if any modification is to be made it increases manual work and is error prone.

3. Error as the system is managed and maintained by worker's errors are some of the possibilities.

1.6 Proposed System

Our proposed system give all the features provided by the traditional existing systems, but instead of working only with non-spatial database, the system also works with spatial data. The system will have the following prominent features: - Specification based searching This feature provides the related information to the users according to the specification they have provided to the website. For e.g., if a user is looking for a house with 1bhk at 9 lakhs at Thane, then only those properties which satisfy the aforementioned demand will be returned to the user. Agent Notification Once the user is focused in a particular property and clicks the "Confirm" button a mail type message would automatically be sent to the agent who manages the corresponding zone, informing agent about the user's name, his contact number and email address. Adding property for sale A user can add his property

that he is willing to sale so that it can be viewed by other potential clients focused in similar property. For this purpose, the client is supposed to enter not only the location but also pictures and the cost at which he is willing to sale that property. Notifying interested users Whenever a new stuff is added, then a mail type notification is automatically sent to all those clients who were interested or were searching for a near property. Thereby notifying those users about the availability of that property. Allowing users to put interesting property finds in cart The cart is an added database advantage to the users. The users would be given the feature of adding gripping properties into a cart before making a final decision. This would help the user to disparate interesting property finds and thus help in final decision making. Providing user with map based search Once a particular area is selected the user can gain needed related information on the basis of geographical factors. For example, requesting information of a particular zone and getting information about regions which lie in a particular boundary of that zone (e.g.In the radius of 2km from Thane Railway station) The features that are based upon geographical factors have to be execute using spatial databases. Spatial databases provide functions that help in searching distance between two points in a spatial domain. Using these functionalities, we can very efficiently perform spatial mining and give the advance and malleable features to the users. The relational databases prove to be slightly unskillful in these aspects and thus the use of spatial domain is evident in the application.

1.7 Advantage of Proposed System

i)   The System Which Will allow the user to quickly and easily search a property for buy and Sell.

ii) The register user can upload his property for sale or rent out.

iii) The System is design and developed in such way that it tries to overcome all the prescribe problem.

iv) The system being an online system will give accurate information regarding the property which helps to view all the stuff information directly from anywhere.

1.8 Project Timeline

The estimated time to complete this project is around 200 days. Below is a Gantt chart illustrating the project schedule consisting of project planning, research, management, design and other tasks.
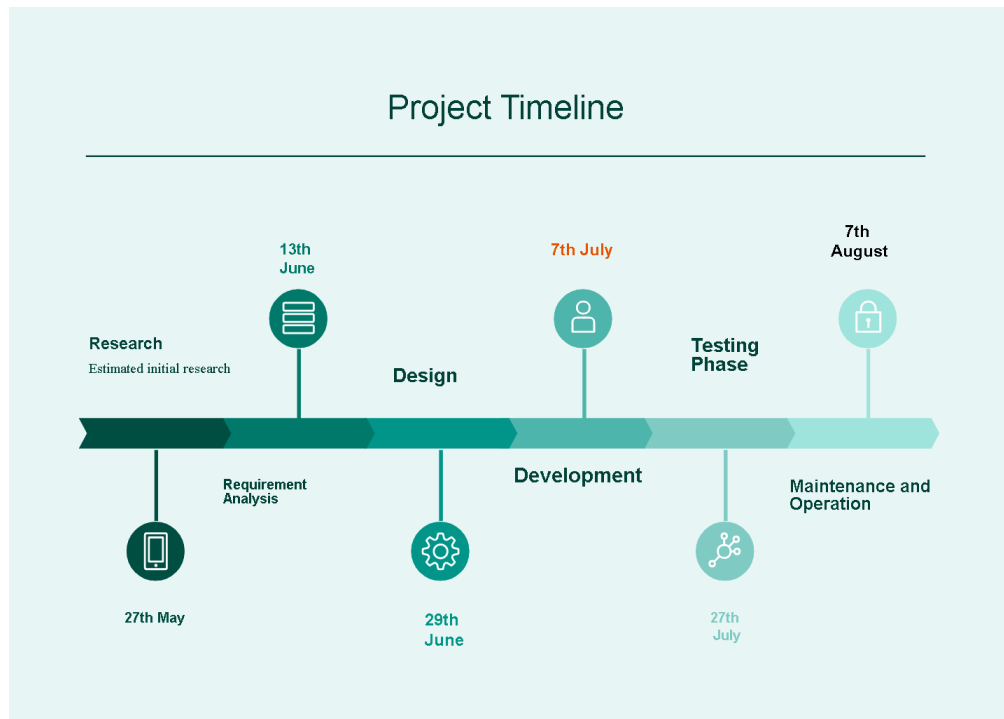

Figure 1.7 : Gantt Chart

Task	Start Date	Days to Complete
Research	27th May	16 Days
Requirement Analysis	13th June	16 Days
Design	29th June	8 Days
Development	7th July	20 Days
Testing Phase	27th July	10 Days
Maintenance	7th August	10 Days

Table 1.1 : Estimated Project Timeline

Chapter 2: Literature Review

2.1 Introduction

This chapter provides an overview of technical research regarding the website and effectiveness of various types of transportation projects to support tourism and recreational activities. A few examples of research addressing the real estate management needs of specific user groups are included. Also this chapter has been mentioned the elements of real estate breakage guide patterns and examined various current application for finding places, distance calculation and other functionality.

2.2 Project Development Approach

2.2.1 Software Process Model

To clear up real trouble in an industry, software developer or a crew of developers should comprise a development strategy that encompasses the process, strategies and equipment layers and familiar phases. This approach is regularly referred to as process model or a software program developing paradigm. A procedure mannequin for software developing is chosen based totally on the nature of challenge and application, the methods and tools to be used, and the controls and deliverables that are required. All software improvement can be characterized as a problem solving loop in which four awesome stages are encountered: Status quo, Problem definition, technical improvement and

Solution integration. Regardless of the process module that is chosen for a software program task all of the tiers coexist concurrently at some level of detail.

2.2.2 The Project Follows the Waterfall Model

The stapes of the Waterfall Model are:

(a) Requirement Definition

(b) System and Software Design

(c) Implementation

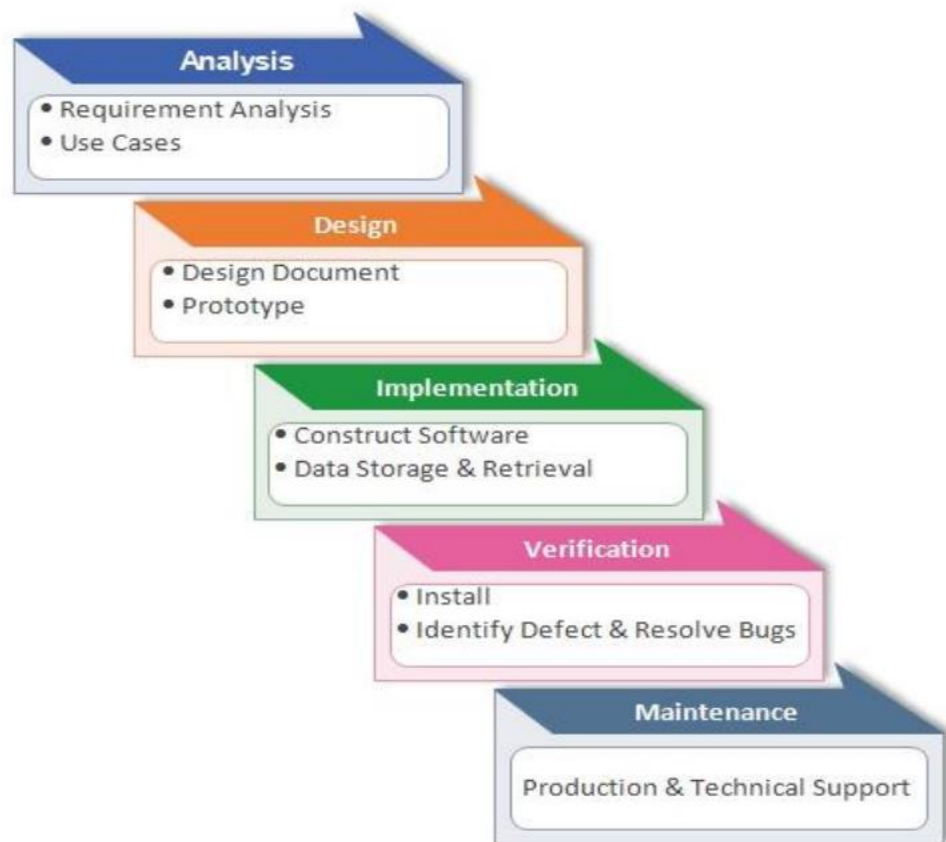(d) Integration and System Testing

(e) Operations and Maintenance

Figure 2.1 : Waterfall Model.

2.4 Feature of the System

The new system has been designed as per the user necessities so as to fulfill all of them.

- Quick Listing of Properties

- Immediate filter based search engine

- Easy to Store and Retrieve Information

- Efficient Maintenance

- Easy to deploy

- User privacy

- Protected from malicious access and activities

2.5 Modules of Real Estate Listing and Management System

2.5.1 User Management

- Login

- User profile

- Update or Edit information

- Role based Rights

2.5.2 Administrator Module

This module gives administrator associated functionality like from this module use can add property information, managing property list, User Management ,Update or delete specific user's information, system upgrade /update. From this module Admin can view daily, weekly and monthly report. This module is boost for admin of the internet site and admin can add, delete, edit and view the statistics associated to places, property, locations, sales from this module.

- Manage user information

- Update information

- Manage Properties

- Manage Transactions

- Manage Property locations

2.5.3 Property Listing

This module provides website visitor a list of property based on latest entry. It will display detail information about the respective property along with picture, location of the property, price and brief info of the owner.

❖ Display property information

❖ Show the picture of property

❖ Price

❖ Owner brief

❖ Display property list which can be customized based on latest Entry, Popularity, Price range and location.

2.5.4   Property Search

On this section of the application user can search property based on

- ✓ Price Rage

- ✓ Location of the Property

- ✓ Number of Bedrooms, washroom

- ✓ Weather the house contains garage or swimming pool

- ✓ Distance from nearest public transport stand.

2.5.5   Seller of the Month

This module show the best real estate broker based on sell property condition,

customer service and communication.

Chapter 3: Methodology

3.1 Introduction

It has been almost not possible to get away the development of the Internet on the grounds that the start of the Web for the duration of the early 1990's. There is an almost 'siege mentality' as companies and companies see the Web as the new frontier for world advertising and marketing and business transactions. Businesses pick out the Web as offering them with seemingly boundless opportunities, in the hope of gaining that ever elusive aggressive edge, evidenced in the rush to register domain names as corporations scramble to get "on-line". Amid this maelstrom is the function of the Web developer, who faces huge pressures to build excessive exceptional Websites quickly, with very few formal Web improvement methodologies to select from as a ability of support. There is the big assumption that Web-sites are developed by using large teams of people, each with a exceptional position in the improvement process. However, research suggests otherwise, showing that there is a range of human beings growing Web-sites, many of whom are from backyard the usual IS function and for this reason except the legacy of using a formalized methodology. Indeed, many internet builders are inventing techniques 'on the fly' in the hope that the rising product will meet the needs of the organization. Web-site development has been recognized as being extra akin to the improvement of a multimedia application and hence entails very one of a kind talent sets at some stage in the development process. The introduction of easy to use Web authoring and web page management equipment appears

to have "trivialized the want for cautious planning, foresight, and a systematic design

methodology". Nevertheless, there is acknowledgement that the procedure of Web

improvement is drastically specific than normal IS improvement and therefore new

approaches are required. The paper is structured as follows. The subsequent section

considers the applicability of current IS development methodologies to the procedure of

internet design. Section three surveys a vary of present net methodologies, highlighting each

their usefulness and their limitations. Section 4 offers the methodology proper, whilst the

subsequent section small print an assessment of the methodology. Finally, the paper

concludes with some observations regarding the use and adoption of a methodology.

3.2 Website Development Methodologies

There are many articles, each educational and journalistic, proposing a methodology for

Web development. Closer examination, however, shows these to be little more than ideas

for satisfactory exercise in designing the "look and feel" of a Web-site. For example, there are

limitless articles on how to minimize the dimension of an image, how to use shade

effectively, or the "pros and cons" of animation; no doubt, many of these are beneficial tips,

however, they fail to tackle the wider trouble of how to strengthen a Web-site. However, the

literature review has pointed to countless diagram methodologies that are being used for the

development of Web-sites. Each methodology will be critiqued in order to help with the

components of the newly proposed methodology. All of the above methodologies address some part of the Web development problem. The methodology put ahead with the aid of Russo and Graham is the most relevant of all of the methodologies outlined above and has supplied a sound basis on which to improve a new methodology. Information gleaned from the literature overview has been assembled, alongside with one of the author's private experience as a web developer. From this literature overview it can be viewed that many of the methodologies have sure boundaries and there are problems that are unique to the improvement of Web-sites. For this purpose, any methodology that is produced ought to be prevalent and bendy sufficient to account for the area of expertise and individuality that is unique to Web-sites, but concise adequate to acquire the task of development. Therefore, it is assumed that a positive quantity of technique tailoring is required in order to make use of any methodology, or certainly countless methodologies can also need to be combined. The proposed methodology will possibly have limitations, if no longer now then nearly simply in the future. As long as the improvement practitioner can pick out these limitations they can be changed by means of greater fantastic methods. Just as the nature of the Web is altering rapidly, any methodology helping Web development need to also evolve with it.

3.3 Agile Methodology

Agile internet development is simply a extensive category of methodologies based on the requirements outlined in the Manifesto for Agile Software Development, which used to be compiled with the aid of means of a crew of professional builders in 2001. Specific strategies such a scrum and XP are viewed agile though they existed earlier than the manifesto was once written. Through their blended experiences of working with other developers, the authors identified the price of adaptive planning and collaboration between self-organizing, cross-functional teams. The cause is to allow for flexibility and provide speedy and continuous enchantment of software solutions. Early shipping is additionally a key purpose of agile development, which entails streamlining initiatives via means of inserting off time sucking tasks.

Because they've been round for about two decades, a lot of the concepts behind agile development appear intuitive to youthful developers; however, agile was once a radical departure from older strategies of doing things. Studies on the effectively of agile web improvement in distinction to normal strategies are mixed, however agile stays famous in the expert world in 2017.

In Utah all thru the wintry climate of 2001, a crew of software program builders came mutually and created what would emerge as one of the most inspirational documents about development: The Agile Manifesto. The Manifesto would go on to inspire a totally new strategy to software program software development, which in flip would develop to be a

methodology that designers and developers would use to method all sorts of one-of-a-kind projects.

Today, agile mission improvement is a famous - and superbly excessive pleasant - way to diagram websites. Let's take a appear to be at how it works.

3.4 Agile vs. Traditional Method

The traditional (or "waterfall") strategy to venture management requires widespread planning of the whole project, begin to finish, earlier than any code is created. But the client's necessities frequently alternate as the mission incorporates on, and such certain plans leave little house for adjustments or new ideas.

Because the net has evolved so rapidly in the past few decades, it's handy to overlook that the World Wide Web isn't even 30 years old yet. During the infancy stages of net development, designers grappled with the basic assignment of translating the sorts of information you'd find in books into a website. They used paper prototypes, wire frames and drift charts to illustrate ideas. Use-case eventualities and focal point organizations had been a most important supply of feedback. Back then, CEOs would have their secretaries print out emails and then dictate responses, so there were obviously giant gaps of understanding between users, builders and executives.

Developers quickly discovered that growing software program shouldn't be an entirely sequential process. There are usually surprising bugs as nicely as new technological hurdles to overcome, and awaiting the demands of users has turn out to be a science in itself. Fortunately, now that every person is so properly connected, it's convenient to accumulate consumer remarks in real-time, so we have a larger appreciation of how humans have interaction with net applications.

Agile Project Life cycle
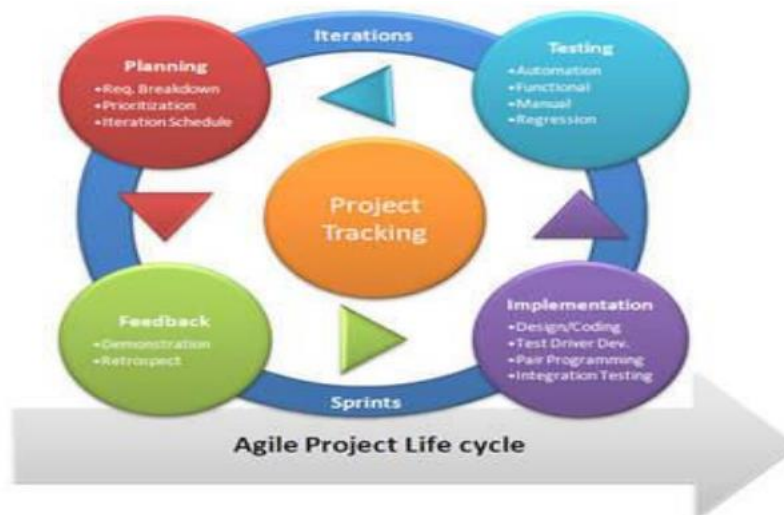
The amplify in net customers has coincided with developments in content material

management systems, which has made it feasible for anybody to plan and edit a primary

internet site with little coaching or expertise. These tendencies have given upward push to

industries that surely didn't exist a few years in the past such as e-commerce. Since the

process of making websites has come to be tons extra streamlined, developers have shifted

focal point to perfecting their strategies to address the developing desires of businesses and

consumers.

According to the concepts behind agile development, the common 'waterfall' method of

designing and developing a website can be severely inefficient, preserving a website from

achieving The waterfall technique has its benefits. Here's how it works, starting with a mission

plan.

Before any kind of web improvement can begin, designers need to have a clear vision with

an cease in mind. The planning stage is upfront and pretty extensive. As a result, waterfall

internet developers can normally accurately estimate the timetable and price range for a

project. Developers can frequently grant extremely quick turnaround on projects - but solely

However, where the waterfall method fails is in its rigidity. Should the project layout want to

be changed at any point at some point of the process, the system will come to a complete

stop. The builders ought to then rewrite the sketch and rethink the complete project. The diagram

is completest full workable in a life like quantity of time. But what's the difference?

If one finished step of the undertaking desires to be changed, it can be all but impossible to

make the vital ameliorations besides disrupting the rest of the project. As a result,

developers can not often ask for feedback on the assignment till it's close to completion.

Should a trouble arise, it can be exceedingly difficult to reply - and if revisions are necessary,

they can be time-consuming and potentially expensive.

Agile, on the other hand, is relatively bendy as a methodology. Some builders describe it as

'freeform' task design. Using adaptive planning, agile web designers work on small chunks of

a project at a time. Customers have ordinary input, and designs are continuously tested.

If requirements regularly change, or if the client doesn't have a clear stop goal in mind, agile

net improvement can be a large boon. As a result, designers can without difficulty adapt and

contain new ideas. As the assignment develops using an agile approach, the patron will

slowly but surely start to make clear their needs. If you're working on an experimental

design, agile improvement is a best approach. In fact, it can even reduce the timeline for a

layout mission in half.

3.5 Justification of Method

By breaking down the task into manageable units, the project crew can focal point on

incredible development, testing, and collaboration. Also, by producing common builds

and conducting checking out and opinions throughout each iteration, first-rate is

increased with the aid of finding and fixing defects rapidly and identifying expectation

mismatches early.

During experience of adopting Agile software improvement practices, we have

considered options delivered on time and with a greater degree of patron and patron

satisfaction. By incorporating the capacity to change, we have been in a position to

better comprise feedback from demos, usability testing, and client and consumer

feedback.
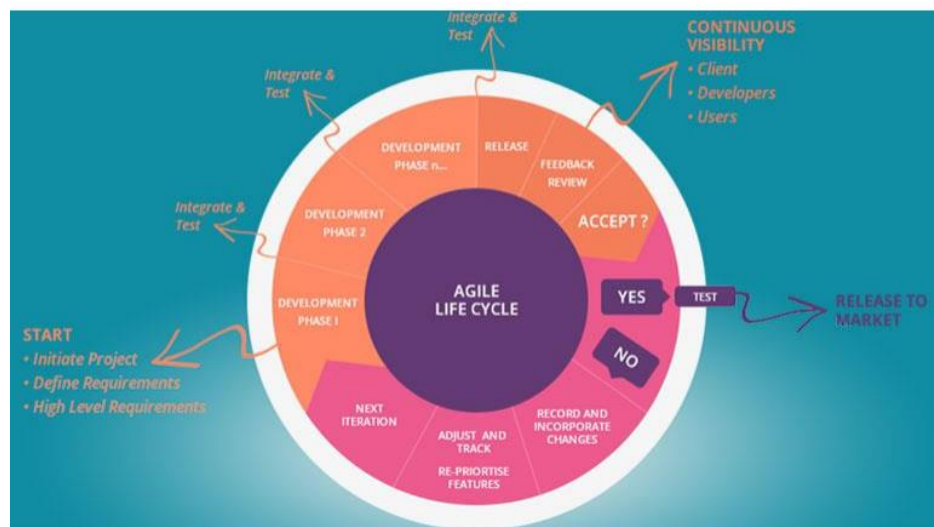
Figure 3.5 Agile Life cycle.

Agile is a powerful tool for software program development, no longer solely offering

benefits to the development team, however additionally presenting a variety of vital

enterprise advantages to the client. Agile helps mission groups deal with many of the

most common undertaking pitfalls (such as cost, time table predictability and scope

creep) in a greater managed manner. By reorganizing and re-envisioning the activities concerned

in customized software development, Agile achieves these equal targets in a leaner and extra

business-focused way.

3.6 Advantages and Disadvantages of Agile Model

Advantages of Agile Model:

- ❖ Customer satisfaction by rapid, continuous delivery of useful software.
- ❖ People and interactions are emphasized rather than process and tools. Customers, developers and testers constantly interact with each other.
- ❖ Working software is delivered frequently (weeks rather than months).
- ❖ Face-to-face conversation is the best form of communication.
- ❖ Close, daily cooperation between business people and developers.
- ❖ Continuous attention to technical excellence and good design.
- ❖ Regular adaptation to changing circumstances.
- ❖ Even late changes in requirements are welcomed.

Disadvantages of Agile Model:

- ▪ In case of some software deliverables, especially the large ones, it is difficult to assess the effort required at the beginning of the software development life cycle.
- ▪ There is lack of emphasis on necessary designing and documentation.
- ▪ The project can easily get taken off track if the customer representative is not clear

what final outcome that they want.

- Only senior programmers are capable of taking the kind of decisions required during the development process.

Chapter 4 : Requirement Analysis

4.1 Introduction

Requirements analysis, also referred to as requirements engineering, is the technique of identifying person expectations for a new or modified product. These features, referred to as requirements, must be quantifiable, relevant and detailed. In software engineering, such requirements are often called useful specifications. Requirements evaluation is an necessary thing of challenge management.

4.2 Gathering and Analysis of Requirements

At the start of the project, the journey management procedure handled by the admin branch was once studied in detail with the aid of the usage of the simple requirement gathering methods.

4.2.1 Identification of Requirements

 Based on the system evaluation carried out on the tour administration activities, a precise necessities specification for the project used to be arrived. During the process, several customers in the admin branch and area specialist were interviewed and consulted to decide precise functional requirements, system homes and characteristic, which the system has to show off and ought to now not exhibit. Following strategies have been followed for the shooting reason of requirements.

4.2.2 Document Analysis

Documents organized for the motive of gathering statistics from personnel and journey agent

have been got and analyzed. All the integral details associated to the journey activities are

captured the usage of these archives furnished through the admin department. These files

are normally the Advance request form, Claim form, Booking request form, etc.

4.3 Functional Requirement

    For the System itself,

- System must assist both brokers and buyers.

- System must have categorized properties based on size, features and price

- System must fetch list of property from database

- System must be able to process payment

- System must be able the display search result based on price, property size, number of
  bedrooms, whether the property having any garage or swimming pool etc.

    For Buyers,

- Buyer must be able to browse all the property

- Buyer must be able to communicate with the broker

- Buyer should be cancel purchase if he/she changes mind and system must be able to
  notify the broker about the change

For Admin,

- Admin must be able to register new user

- Admin must be able to edit/update user information

- Admin must be able to terminate any specific user.

- Admin must be able to delete any post based on fraudulent report.

For Brokers,

- Brokers have to be allowed to declare their property prices.

- Brokers have to be allowed to add property details, pictures, descriptions

* All stockholders should be able to search the properties within the system.

4.4 Non-Functional Requirements

- ➢ System should create at least 35 concurrent users.

- ➢ All UI should be unique and should be able to run in all browsers

- ➢ Support for both English and Malay languages (not user input data)

- ➢ Reports are exported to different formats (XCL, CVS, TXT)

- ➢ Development must be cross platforms

- ➢ Every caption should be self-expiation

- ➢ Validation of user's input (eg. form data)

4.5 Interface Requirement

A mouse and keyboard are needed to interact with the interfaces of the system, both for entering text and for executing some of the processes. In order to execute, the product requires a system with a web browser. A connection to the Internet or to the local intranet, which the system is running, is also required.

4.3 Conclusion

Requirements analysis of the gadget is regarded in detail. Identification of requirements is also discussed. The use of device to obtain the identified goal and goals are argued. System specification is additionally given.

Chapter 5: Design

5.1 Introduction

The Given Design Challenge which is cited in the starting of this file demanded that we body a dynamic database pushed website. Broadly this website should be capable to portrait dynamic content on a webpage as nicely as provide the user interactive input sessions. These challenges demanded some research which led to the following conclusion –

5.2 Tools for the System Design

1) A server aspect scripting language that would manner information on the request of the user.

2) A server aspect scripting language that would dataflow within the system.

3) A query language to efficaciously retrieve, alter and add to the saved information in our database.

4) An interface to represent the output of the scripting language in the form of html.

5) An internet server which is wished to host the internet site and to do all the computations needed to portrait the generated statistics on the basis of enter obtained from the user

5.3 Available choice

Server side Scripting Language

I.   PHP (which we used)-It is a scripting language designed to produce dynamic web pages. It is widely 6 used and can be embedded into html. A big plus point of using PHP is that it can be used on most web servers and on almost every operating system. Apart from this it is an open source project.

II.   JSP (Java Server Pages)-is a java technology that facilitates software developers to dynamically generate html, xml and other kind of documents. It is also a platform independent technology.

III.   Python with **Django framework** is a high level scripting language which borrows its features from C, shell scripting etc. It can be used to do CGI (Common Gateway Interface) programming on a web server. It defines a way to pass the request and arguments to the command line and to return the results.

IV.   ASP.net-It is a web application framework that can be used to build dynamic web applications. It is not widely used as it's functionality depends on the platform being used.

Database Management System

> ➤ MYSQL (which we used)-It is a relational database management system which is popular for web applications and is closely attached to the popularity of PHP and PYTHON.

> ➤ MSSQL-It is also a database management system developed by Microsoft. It also has issues with platform independency.

5.4 Choice Made

i. **Python** as the server side scripting language with **Django** as the server facilitating framework the processing of Python code.

ii. **MYSQL** as the relational database management system and **SQL** as our query language.

5.5 Architectural Design

Web applications give to content from a server to client machines over the internet and the users view the web applications between a web browser. This project uses client/server architecture. It is hosted on the web server and responds from other clients.

5.6 System Specification

Software Specification

1. Django
2. Python
3. MySQL server
4. Pycharm IDE
5. Windows OS any version or Linux
6. Chromium or Firefox Browser

Hardware Specification

i)   Processor – 1.6 GHz or higher (Intel or AMD)

ii) Memory – 2 GB or Above

iii) Storage – Minimum 10 GB

iv) Network adapter – LAN or Wifi 802.11 Adapters

5. 8 Program Design

5.8.1 ER Diagram for Admin
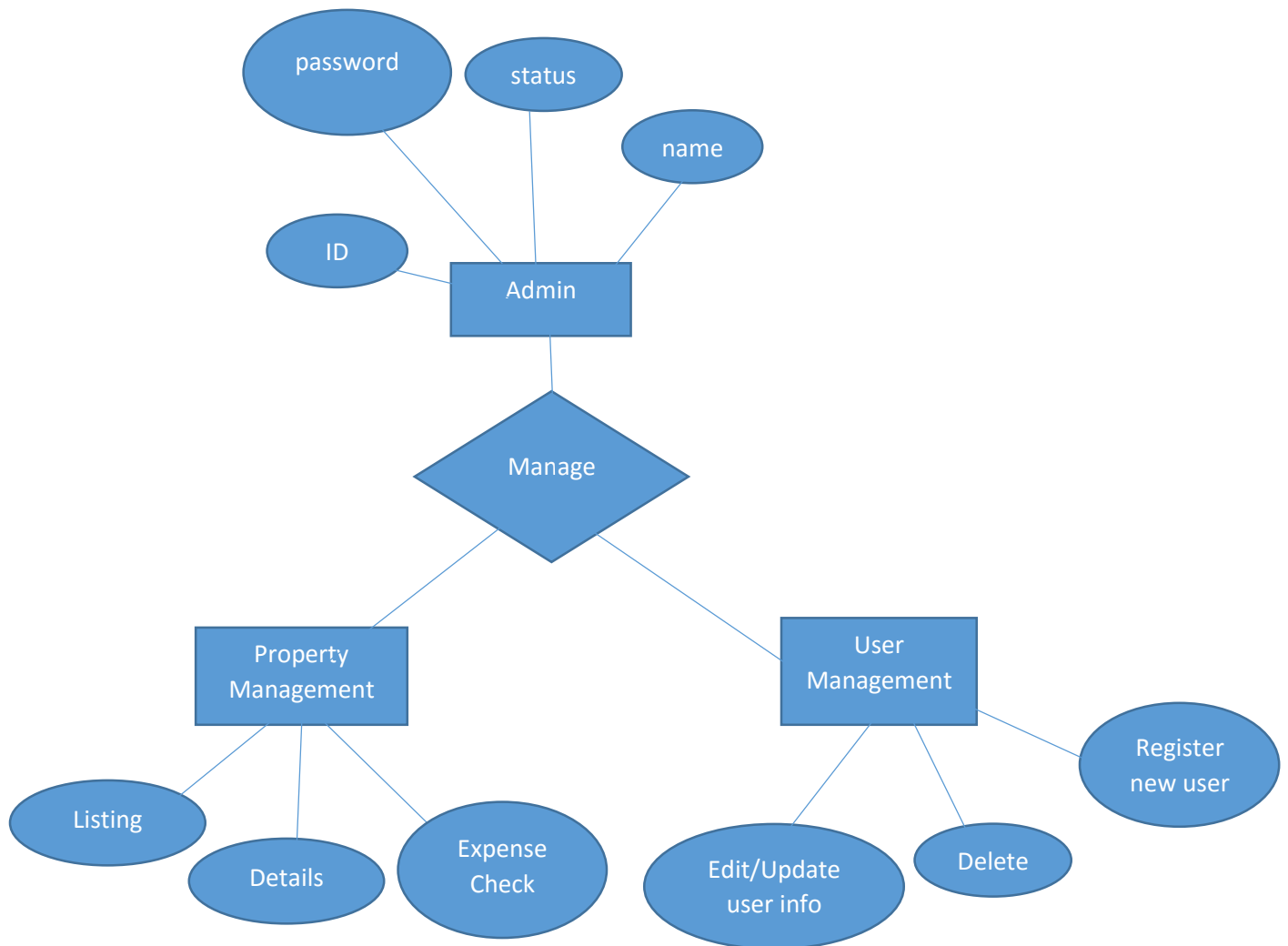
Figure 5.6.1 : ERD for Admin

5.8.2 ER Diagram for Buyer
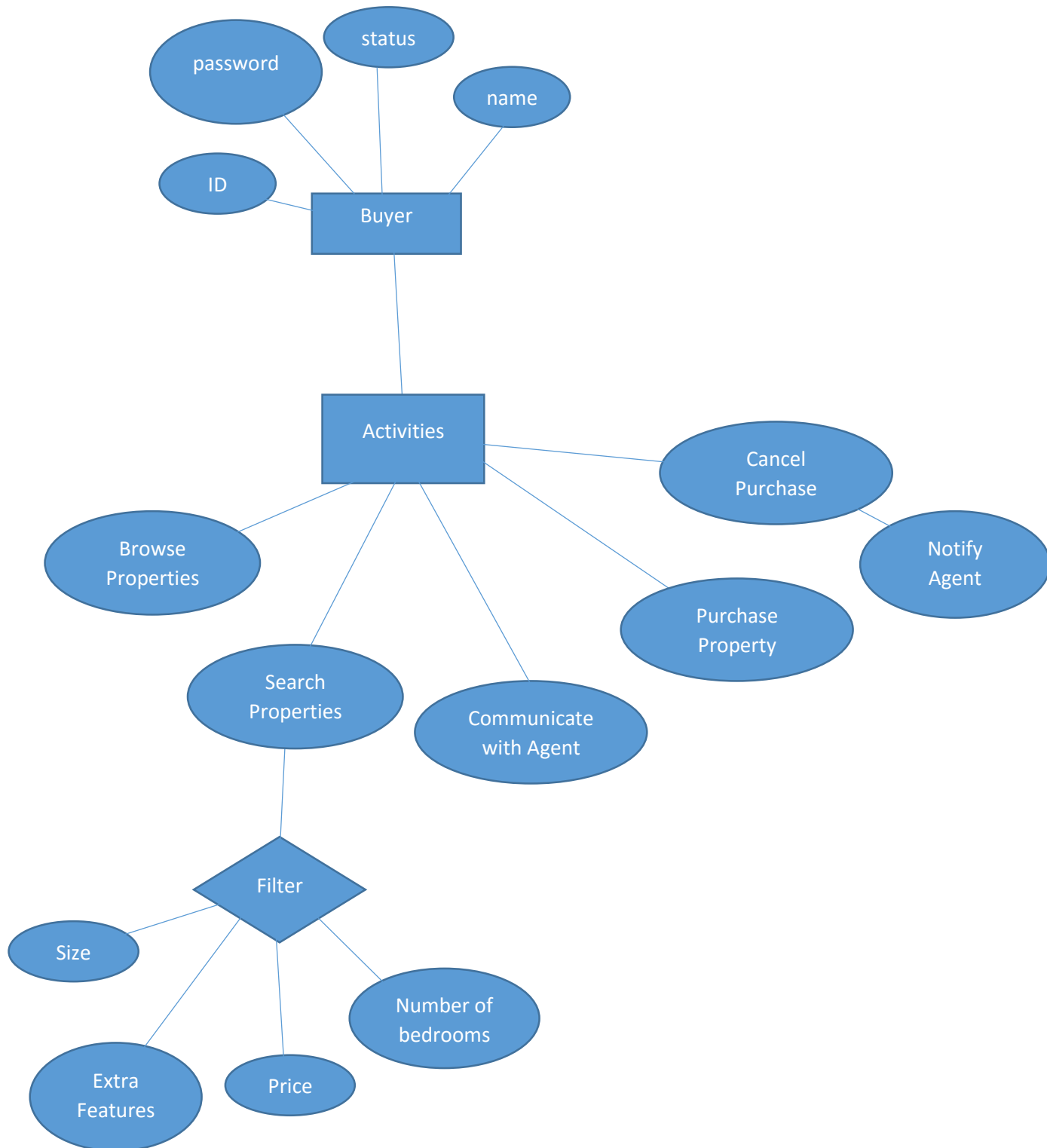
Figure 5.6.2 : ERD for Buyers

5.9 Data Flow Diagram

Context Level Diagram
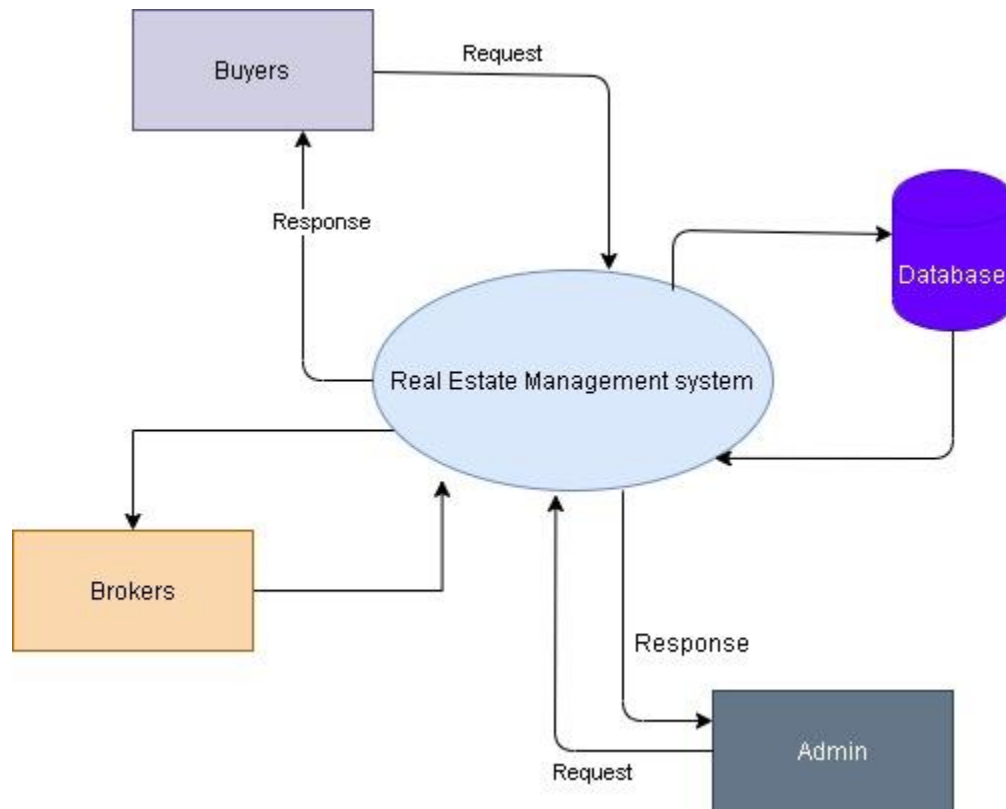
5.10 Activity Diagram
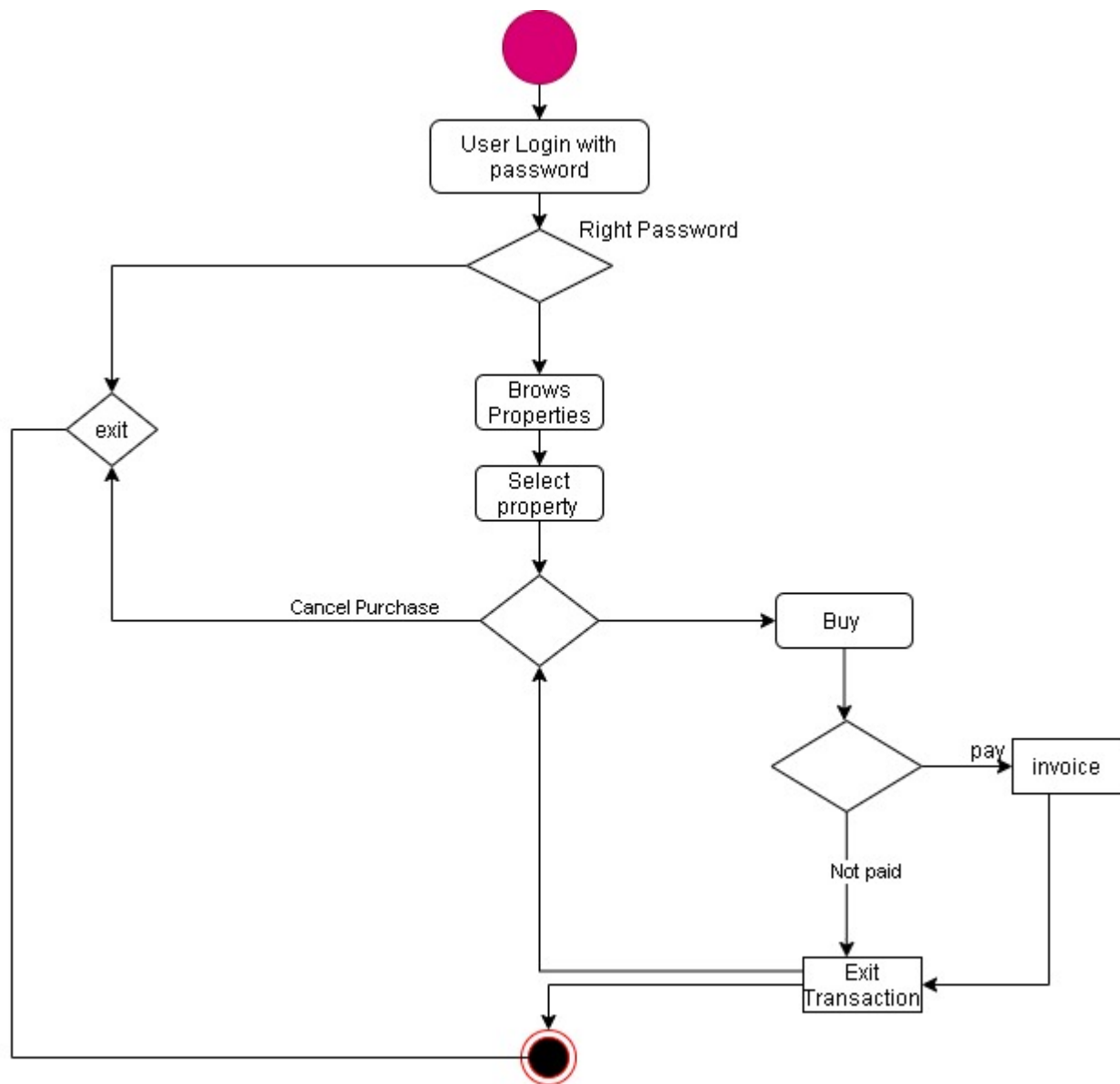
Figure 5.7 : Activity Diagram

5.11 Sequence Diagram

5.11.1 Diagram for Admin
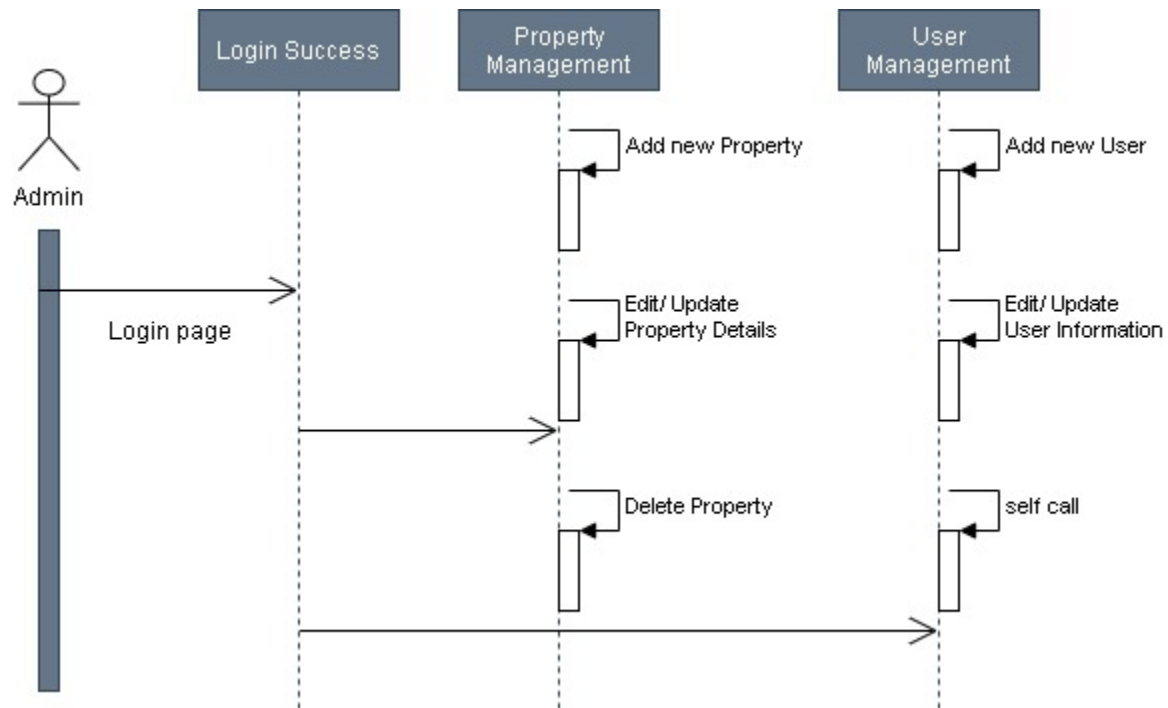
Figure 5.9.1: Sequence Diagram for Admin

5.11.2 Sequence Diagram for Buyer
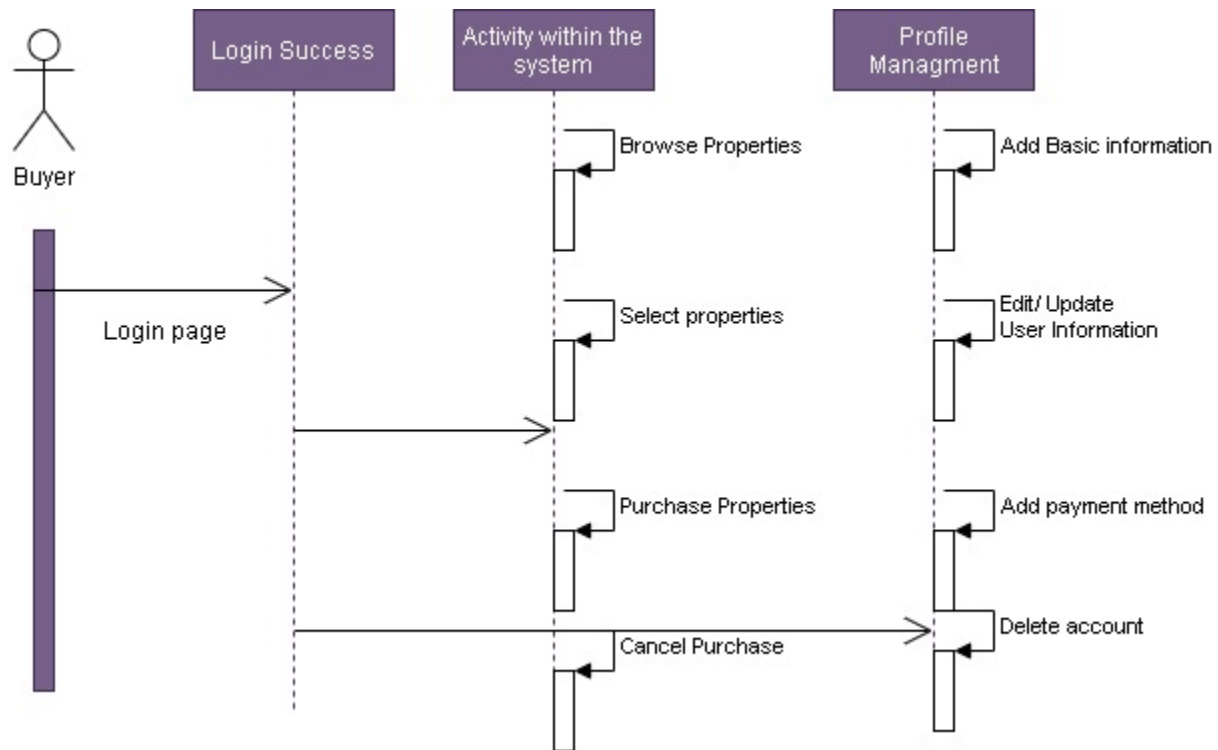
Figure 5.9.2 : Sequence diagram for Buyer

5.11.2 Sequence Diagram for Brokers
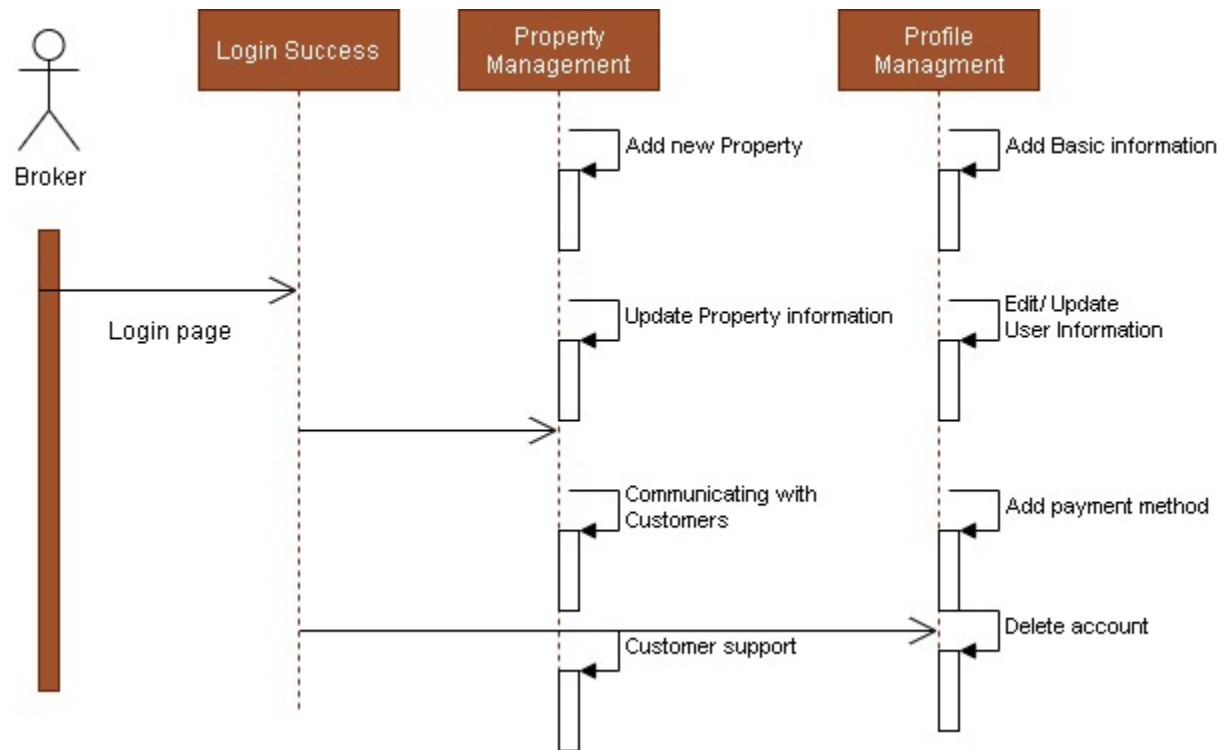
Figure 5.9.3: Sequence Diagram for Brokers

5.12 Class Diagrams

5.12.1 Admin Class Diagram

admin Class

id: int

name: string

password:string

login()

logout()

user class

id:int

password:string

userType: string

user_name:string

user_email: string

user_phone: int

create_user()

edit_info()

delete_user()

property Class

property_ID:int

location: string

fullAddress:string

brokerID:int

propertyType:string

addNewProperty()

editPropertyInfo()

deleteProperty()
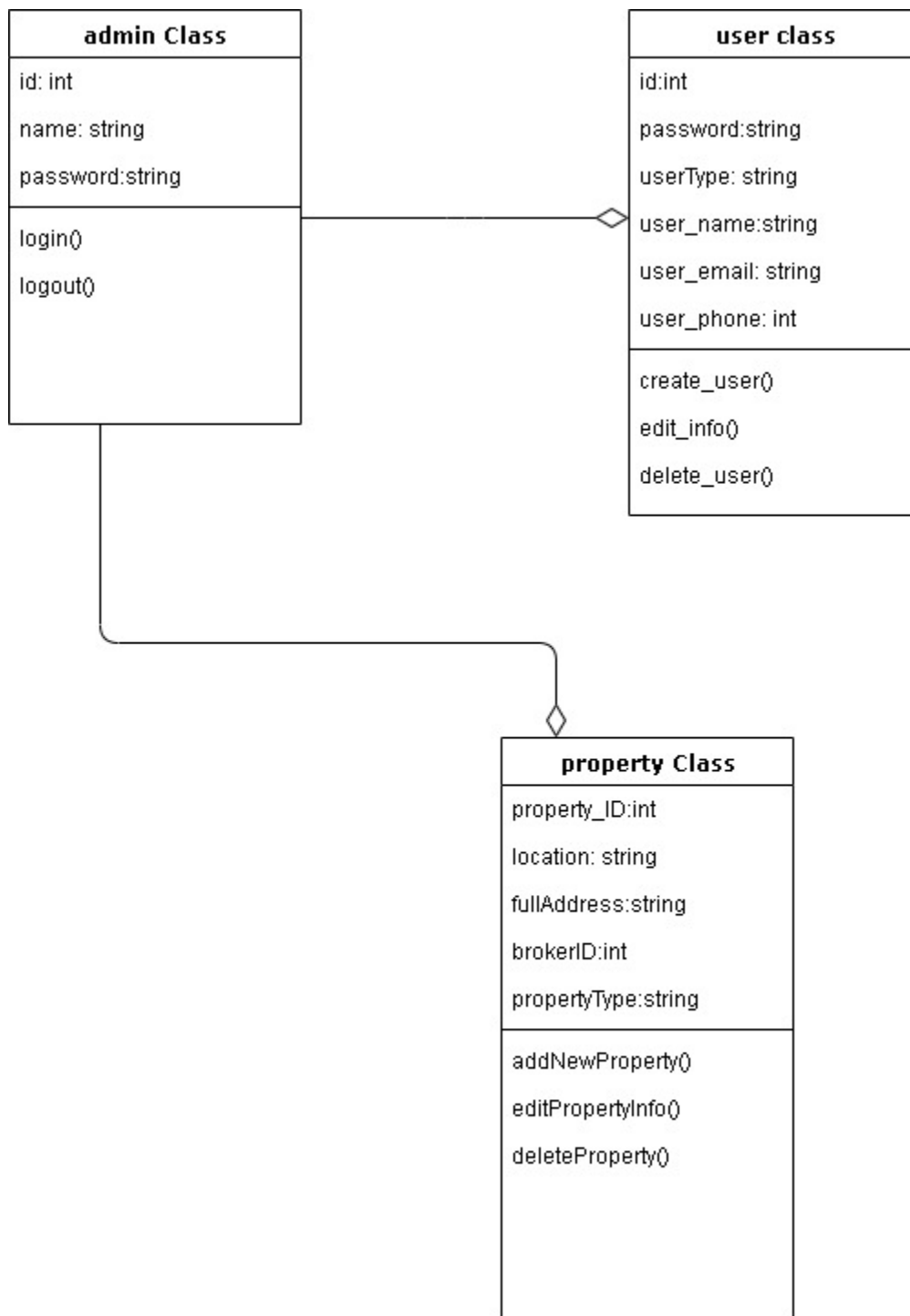
5.12.2 Class Diagram for Buyers

buyer

buyer_id: int

name: string

password:string

login()

logout()

activity class

buyerID:int

browseProperty()

selectProperty()

purcharse()

messageToBroker()

profile class

id:int

password:string

userType: string

user_name:string

user_email: string

user_phone: int

edit_info()

delete_account()
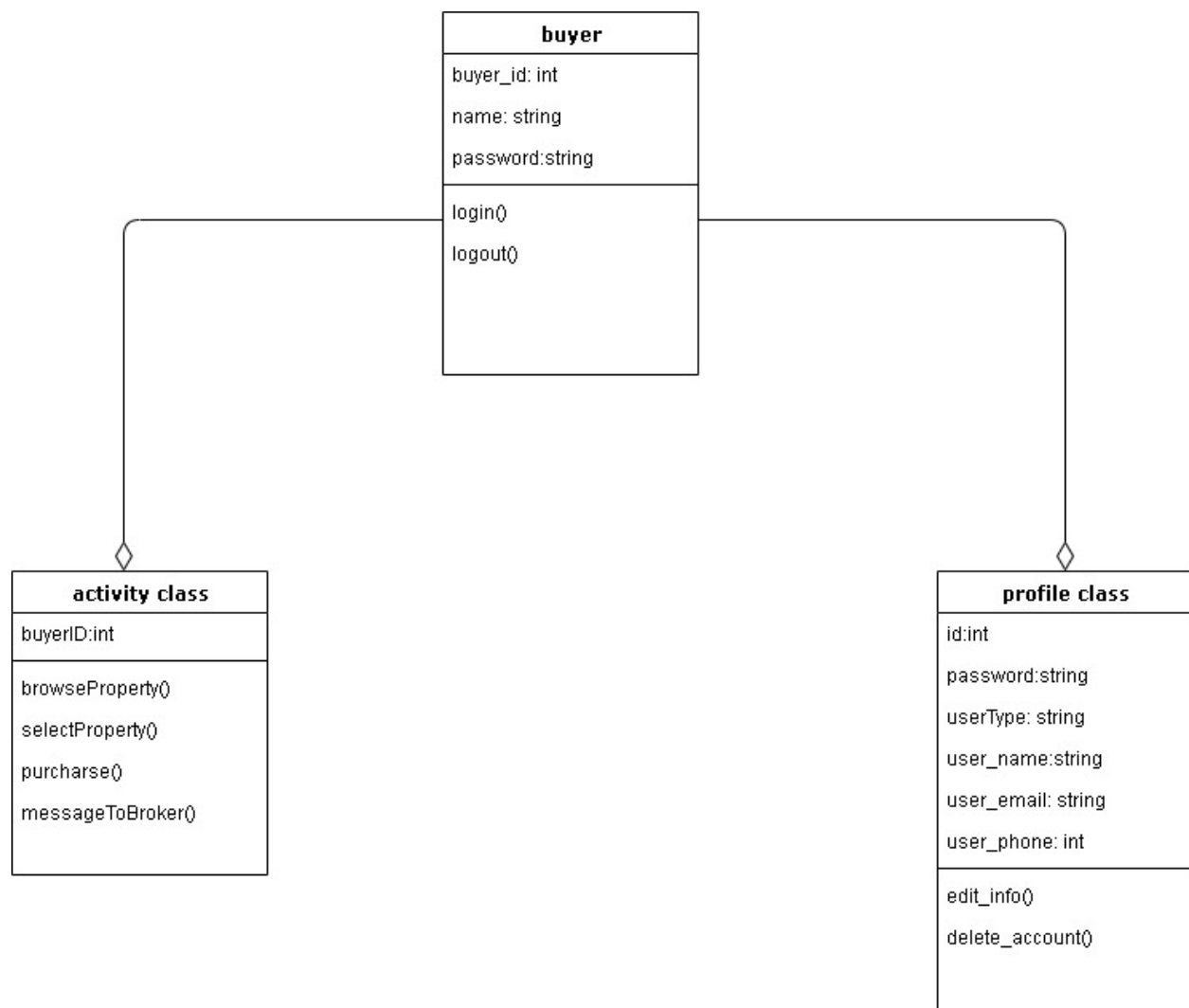
Figure 5.10.2 : Buyer's Class

5.12.3 Class Diagram for Broker

Broker Class

broker_id: int

name: string

password:string

login()

logout()

property Class

property_ID:int

location: string

fullAddress:string

brokerID:int

propertyType:string

addNewProperty()

editPropertyInfo()

deleteProperty()

Profile Class

id:int

password:string

userType: string

user_name:string

user_email: string

user_phone: int

create_user()

edit_info()

delete_user()
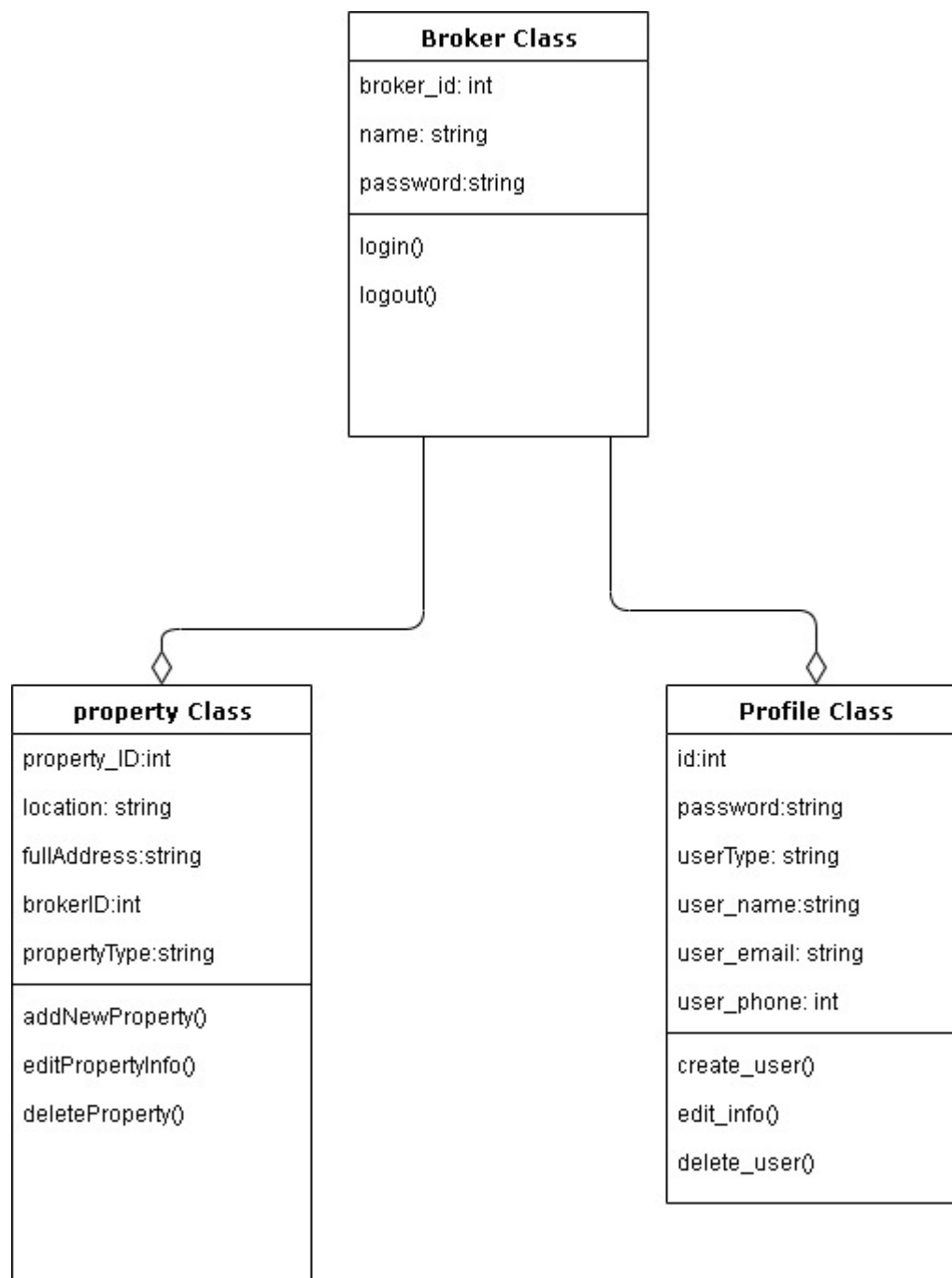
Figure 5.10.3 : Broker's Class

5.13 Website Map

Home page of the website
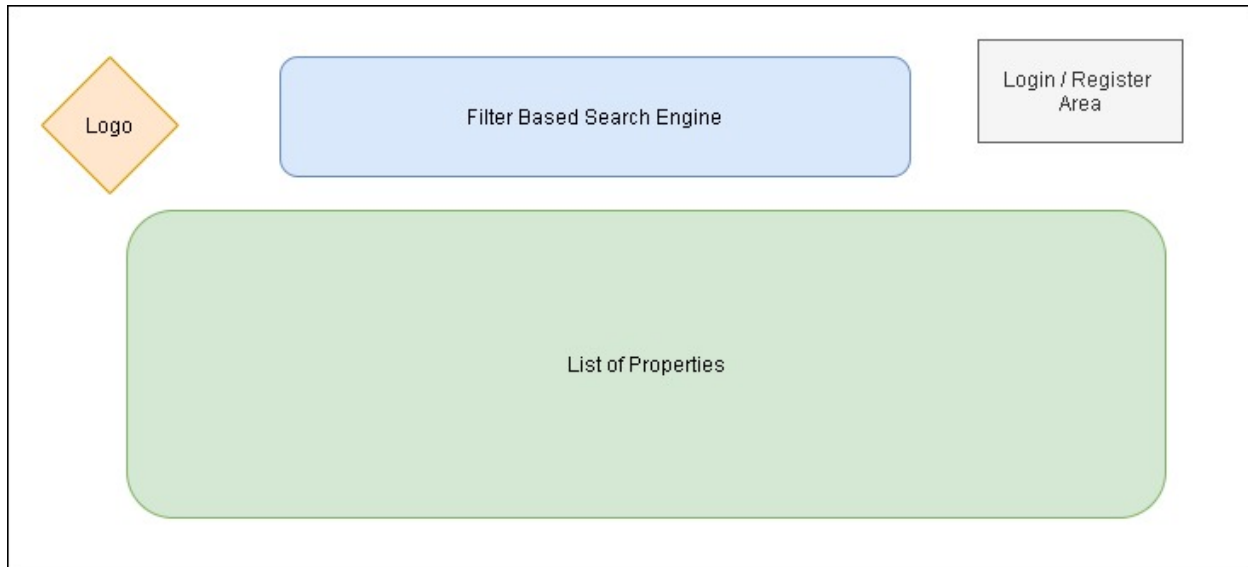
Figure 5.11.1 : Home page

User Registration page

Figure 5.11.2 : Register Page

Admin Page
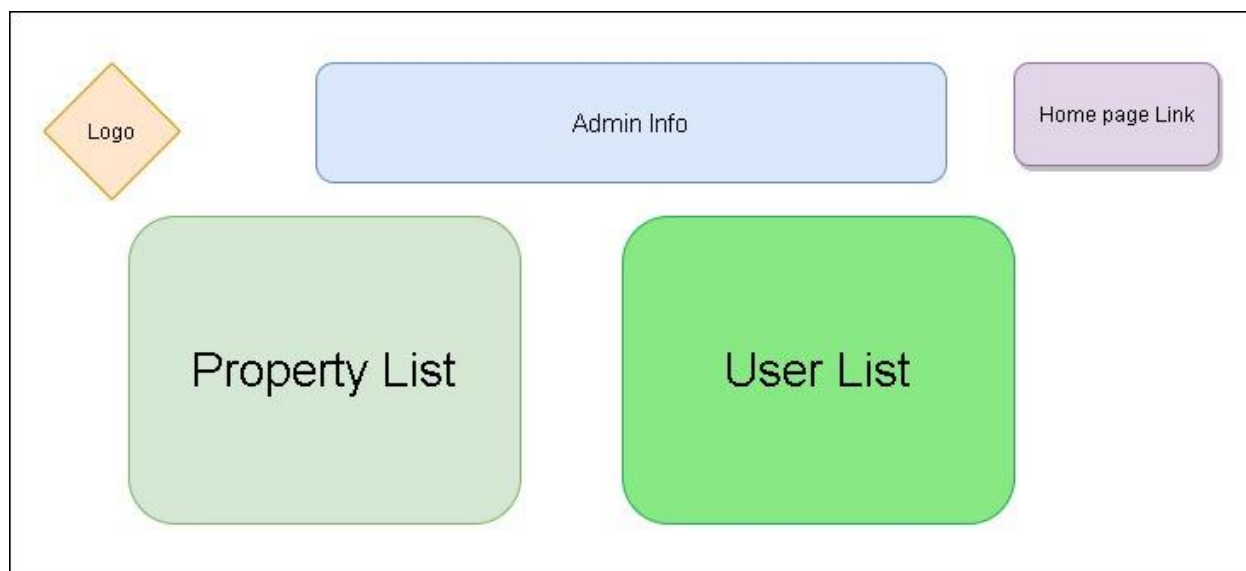
Figure 5.11.3 : Admin Page

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Appendices: Project Poster