Software Requirements Specification

for

Makemoney.com

Version 3.0 approved

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System86

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Revision History

Name	Date	Reason For Changes	Version
Alimul Mahfuz Tushar	22 Oct 22	Initial Draft and page layout modification	Version 1.0
Rubina Islam Reya	21 Oct 22	Section 1.1, 1.2, 1,3	Version 1.1
Jihad Shahariar Joy	21 Oct 22	Section 2.4 (Operating Environment)	Version 1.2
Alimul Mahfuz Tushar	23 Oct 22	Section 3, User Interface, Software and Hardware Interface.	Version 1.3
Ehsanuzzaman Shawon	23 Oct 22	Section 1.4, 1.5	Version 1.4
Jihad Shahariar Joy	24 Oct 22	Section 2.5, 2.6 and 2.7 (Design and implementation Constraints, User documentation, Assumptions and Dependencies)	Version 1.5
Ehsanuzzaman Shawon	24 Oct 22	Section 1.6	Version 1.6
Md. Kaushiq Ahmed	25 Oct 22	Sections 2.1, 2.2, and 2.3	Version 1.7
Alimul Mahfuz Tushar	26 Oct 22	Compilation and merge	Version 1.8
Alimul Mahfuz Tushar	1 Dec 22	Initial drafting section 4 to 6	Version 2.0
Rubina Islam Reya	4 Dec 22	Safety Requirements	Version 2.1
Jihad Shahariar Joy	4 Dec 22	System features : (Authentication: User Registration)	Version 2.2
Ehsanuzzaman Shawon	5 Dec 22	Performance Requirement	Version 2.3
Rubina Islam Reya	5 Dec 22	Security Requirements, Software Quality Attributes	Version 2.4
Jihad Shahariar Joy	5 Dec 22	System features : (Authorization: Login)	Version 2.5
Ehsanuzzaman Shawon	6 Dec 22	Business Rules	Version 2.6
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Ehsanuzzaman Shawon	6 Dec 22	Appendix A: Glossary	Version 2.8
Jihad Shahariar Joy	6 Dec 22	Appendix B. Analysis Model: State Diagram	Version 2.9

Md. Kaushiq Ahmed	6 Dec 22	Other Requirements, Appendix B. Analysis Model & Appendix C. To be determined list.	Version 3.0

1. Introduction

1.1 Purpose

To enable consumers to search for the products they need from a single interface, we wish to build responsive software. Additionally, give owners and borrowers who wish to rent or buy their products a simple interface. We don't always acquire all we require for a brief period of time. Anyone can use this program to advertise relaxation. You can also rent the item of your choice by looking at the pricing. Plans have also been made to allow you to pay the price online. Both the renter and the rent advertiser will have biographical data. Many people have additional items they don't need at the moment, but there are also some folks who might only require those items temporarily. Both types of people will be connected by our software system. Our technology can bridge the gap between two different types of people and introduce them to a procedure that will undoubtedly be advantageous to both. Here, our primary goal is to develop software that will aid in problem-solving of this nature. Our technique will primarily assist two categories of troubled individuals.

1.2 Document Conventions

- This template is fetched at https://web.cs.dal.ca/~hawkey/3130/srs_template-ieee.doc.
- Defined terms are highlighted with **bolding. Bolding** under subheading means a heading that will further divide into some bullet points
- Key points are written using bullet points.
- Sort form and abbreviation are defined in Section 1.6.
- The document uses Arial font for all body text with font size 11 and line spacing of 1.15.
- Heading uses Times font and the font size is 18. The subheading also uses Times font with a font size of 14. External web links are denoted with blue text with underline

1.3 Intended Audience and Reading Suggestions

Users of this program can search for the things they need from a single interface. Additionally, it offers a simple interface for owners and borrowers who wish to rent or purchase their goods. There are various circumstances where concurrent parallel works are carried out. There are four different processes. We choose parallel processing from among them. since our software will need to perform concurrent operations. There are four different categories of actors in our world. The four of them are RENTER, BORROWER, ADMIN, & STAFF. There are other sorts underneath these. However, they are the key players. The RENTER and BORROWER are listed as users in the system. Now, the administrator will be informed if a user requests to borrow a product. The product will then be automatically checked to see if it is available throughout the time period after that. If a payment option is available, it will be chosen. Stuff will send the item in its original condition. Tasks were performed in parallel in this situation. We require parallel processing because of this. The use of parallel processes has the benefit of allowing for the completion of numerous parallel tasks.

1.4 Product Scope

Our service system will be helpful for those kinds of people who need a product that is expensive but will be used for a very short time. It will fulfill people's emergency needs and will also save the money. Through this system, both the renter and the user will be benefitted. the renter doesn't need to keep his product useless. He will get money from the product. On the other hand, the user won't have to buy the high pricing product.

1.5 References

- *Rent a Car, Laptop etc. with fastest Rental Service in Dhaka Bangladesh (renthobe.com)*
- *IEEE Templates for System Requirement Specification Documents:* https://goo.gl/nsUFwy
- *Cheap Car Hire, Compare Rental Prices - Rentalcars.com*

1.6 Definitions, acronyms, and abbreviations

Term	Definition
Authentication	The process of recognizing a user's identity
Authorization	A process of verifying
MFS	Mobile financial service
OS	Operating system
GPS	Global positioning system
SDK	Software Development Kit a bundle of
Payment Gateway	Is a technology used by merchants to accept debit or credit card purchases from customers.
Renter	A person or organization that holds, or has the use of, property by payment of rent.
Customer	A customer is an individual or business that purchases another company's goods or services.
Developer	A person constructing the SW.
Tester	A person testing the functionality of the SW.
Flutter	Flutter is an open-source UI software development kit created by Google.
Cross-platform app	Cross-platform apps are mobile apps developed to function for multiple mobile platforms.
API	Application Programming Interface
NID	National Identity Card
OTP	One-Time Password
Hashing	Hashing is the process of transforming any given key or a string of characters into another value.
SMTP	Simple Mail Transfer Protocol
HTTP	Hypertext Transfer Protocol

2. Overall Description

2.1 Product Perspective

Renting management service was developed to provide an easy solution for those people who want to rent something. Mostly cars, bikes, and apartments.
There is a lot of population in Bangladesh, particularly in the cities, and as the population grows the living expenses are increasing. People trying hard to save their expenses. The product will be beneficial for them also. Various rental services are currently available mostly for Dhaka city http://www.renthobe.com/ and http://www.sheba.xyz are two major rental services available. Some other rental services are also available, but they mainly focus on property renting. It is an open-source project. And a very active developer team will be supporting it. The users can provide any feedback about the application. It will be both an android, iOS, and web-based application. So, users can use this with any device from anywhere using their smartphone with an active internet connection.
The focus of the project is not only limited to Dhaka city and flat renting services but also home appliances, electronic gadgets, and commercial and industrial items.

2.2 Product Functions

User Registration:

- Sign-up by using your Email id or Phone number.
- Send a verification email or verification message for OTP.
- Phone number and in particular case NID verification.
- Set-up a username & password.
- Set up other necessary information. (Name, Date of Birth, Address etc.) or company name and trade license.

Log in:

- Sign in by using your Email id or Phone number.
- Give your password and sign in.

Search:

- Search for a specific renting service (Car, House, Bikes, etc.)
- Filtering item with tag.

Upload for Renting:

- Add his/her product or item for rent.
- Add some extra information about any item by uploading photos with it.
- Add the renting price along with this.

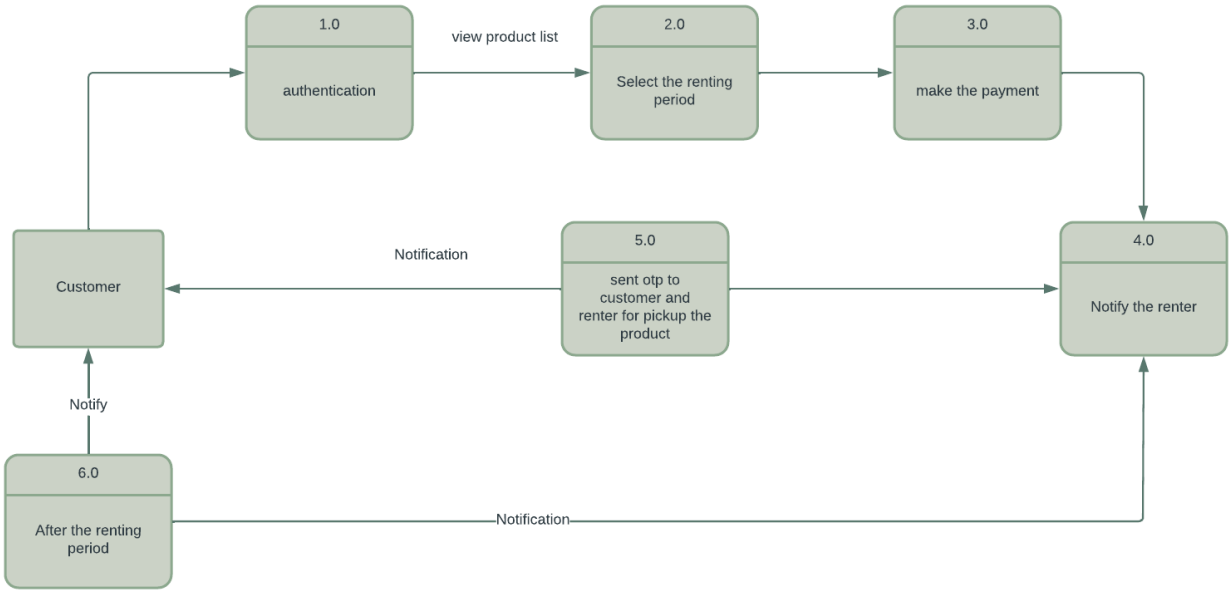
Rent an Item:

- Choose items to take for rent.

- The product photo, information, and price can be seen.
- Apply to take any item for rent by providing the address and other information.

Payments:

- Complete the payment process by selecting any method.
- Select, take rent, and proceed.
- Select payment process (Online/Offline).
- System will provide various online payment options if the method is chosen.
- Payment process can be done by selecting a specific method



2.3 User Classes and Characteristics

Both the user and the renter of our system will be general people. Normally, this service will be open for all kinds of people but most people with limited income and middle-class family people will use this service most. As this is the best place to make people's useless things useful or a source of income, all kinds of people will be interested in our service system. A person who has extra things like a car, Bike, Electronic devices, household machines, etc. can be a member of our service system. So, it's an open service platform that anyone can use for their emergencies.

- **Renter:** It's a user of the renting service, who wants to use this service to give rent of any his/her products.
- **Borrower:** It's a user for borrowing any products that are up for rent. In emergency cases, it is needed.

- **Admin:** Admin will manage the overall system. He could view, add, modify, delete, update or temporarily ban any user from the system. He could view overall business outcomes, order statistics, and financial expenses and revenue.
- **Staff:** Will send the item in its original state. And have to complete numerous tasks.

2.4 Operating Environment

Our proposed system is called ‘Makemoney’ and it will be basically a web application for now. There will be backend APIs and frontend as a reactive user-friendly website. This software will operate through web browsers. So, users can use this software with any device that has or can run a web browser properly.
That means every phone that has at least android version 4.2 and above, has at least 256 megabytes of RAM and 512 megabytes of system storage (ROM). It can also work on iOS devices, mac, Linux, windows XP, 7, 8, and above, etc. (Pentium 4, intel as minimum processors).
As this will be the first version of this system, these are the bare minimum requirements, or the environment required in order to operate the system. But in the future, there will be more frontend versions such as mobile apps, desktop apps, etc. because we will be able to use the same backend APIs for different frontend services. As the application grows and adapts to new environments, the specifications to operate the system will also increase.

2.5 Design and Implementation Constraints

Several issues will limit the options for the developers as well as the users. First of all, to log in to the system one must be registered by verifying their general identity information. Even though it is a security policy of the system, some users might feel uneasy about providing their personal information to a new application. As for the developers, they must make a module to verify the user's identity information by connecting to the government's identity database.
Hardware permissions such as permission to access the internet through the device, storage, camera, location, phone, etc. would be required to operate the system. Denial of any permission might result in malfunction at some point in its usage which is a major constraint.
To track a person/borrower through the application will require in-app integration with google maps by accessing the user's location service which will be hard to implement. A language-changing option should be included which as well would translate the entire website to the user's preferred language because some users might not be fluent in English.
So, developers must design and implement the system by considering these kinds of issues and constraints. After developing/delivering the system, good maintenance is necessary, and the developers must make a hassle-free system that will be easy to maintain for future and further developments.

2.6 User Documentation

Like every other software in the world, our proposed ‘Makemoney’ service will also come with some user documentation.

The first one is a Descriptive Document that will include a detailed overview of the software with all the services offered by it. End users review this document and determine whether or not this is the product they are looking for. Secondly, the Installation and Setup Guide must be included which would contain detailed instructions on how to install, configure, and information on the basic use of the software. Lastly, the Product / User Manual. It provides information on all the software's features with detailed and illustrative examples. It contains all the "How-to" instructions for using the software on a regular basis.
We can also include a Help icon on the web page to provide necessary guidance for the users whenever they need any help regarding the software.

2.7 Assumptions and Dependencies

Most of the websites in the world have some type of empty spaces kept showing advertisements of third-party commercials. So, it is assumed that our system would also have some spaces like that in only the website version of the service. In future developments such as mobile and desktop apps, we are not planning to include in-app empty spaces for advertisements. Now, those can affect the overall experience of the system. To use the system, users should have a steady internet connection, and for the advertisements, it may take longer to load the pages than normal which might slightly drain the performance of the system.
In the future, the app versions would have some dependencies regarding the access of the different components of the devices. The app would need permission to access the internet through the device, storage, camera, contacts, location, phone, and some other modules. Depending on the permission the user allows, the app's overall performance and ease of use will increase or decrease.

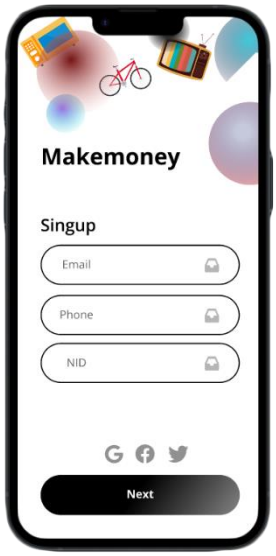
3. External Interface Requirements

3.1 User Interfaces

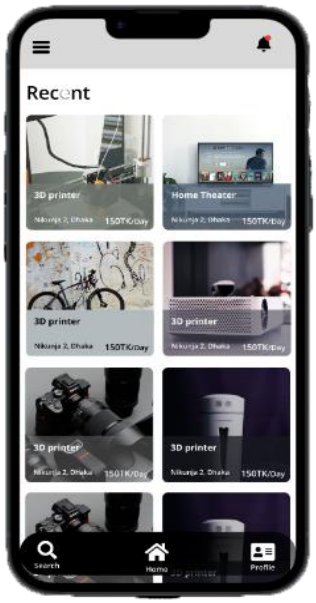
UI-Language

- EN-US
- Bengali

Login and registration interface



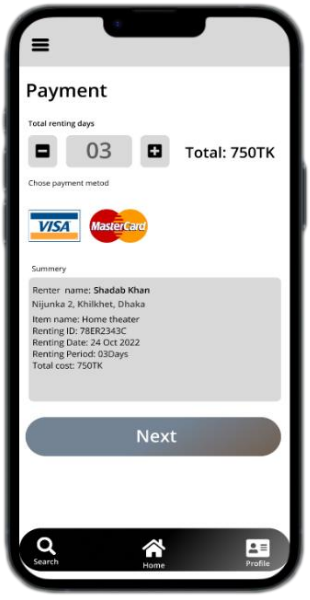
Home page of the application with bottom floating navbar



Product details page


Home Theater
Location: Nikunja 2, Dhaka
150TK/DAY
4.3/5
Shadab Khan
Search
Home
Profile

Payment


Payment
Total renting days
03
Total: 750TK
Chose payment metod
Summery
Renter name: Shadab Khan
Nijunka 2, Khilkhet, Dhaka
Item name: Home theater
Renting ID: 78ER2343C
Renting Date: 24 Oct 2022
Renting Period: 03Days
Total cost: 750TK
Next
Search
Home
Profile


Payment
Card No
VISA
CVC
Valid till:
DD
YYYY
Submit
Search
Home
Profile

3.2 Hardware Interfaces

- Smartphone (Android or IOS)
- CPU (Quad-core) 2.4GHz
- GPU Adreno or MALI 410
- GPS
- Camera
- Network card

3.3 Software Interfaces

For tracking and finding both renter and customer google maps is an essential part of the system. Besides convenient development of the android SDK version, 26.1.1 is needed. Java JDK version above 11 and minimum android API level 24 and the android version higher than Android 5 (Lollipop). MongoDB database version 5.6.6 or higher will be used. For the website, the system will be built on Laravel 7.0 or a later version. The latest version of flutter will be used for cross-platform development, both iOS, and Android. iOS version above 9 is mandatory.

3.4 Communications Interfaces

UTF-8-character encoding system for character encoding. HTTPS for secure HTTP communication. SMTP mailing service for email communications. SHA-128 hashing algorithm for securely encrypted user personal data and systemwide communications.

4. System Features

Renters can effortlessly post items for rent on our proposed Makemoney rental platform, and customers can easily obtain that specific item for rent. By implementing the functionalities into the software, the application supplies all the business logic necessary to execute the application. Some of the functionalities are described in this chapter.

4.1 Authentication and Authorization

4.1.1 User Registration

4.1.1.1 Description and Priority

On our Make Money website, guest users can view some pages as well as the items that are listed for rent. But, to rent an item and to give any item as rent, users must be signed in using their account. As the system will recognize a user by their account, the user-registration (authentication) functionality has a 'high' priority (8 out of 9).

4.1.1.2 Stimulus/Response Sequences

- Click Sign-Up and get redirected to the signup page/window.
- Displays different kinds of user-input areas for the general information of the user.
- Provide the required information to set up the account.
- Validates all input sections.
- Click the Submit/Next button.
- Verifies NID for person's identity.
- Verifies Email by OTP.
- Get redirected to the Log-in page/window.

4.1.1.3 Functional Requirements

REQ-1: The system must allow the users to enter their information.

REQ-2: The system must validate each input section.

REQ-3: An error with correction suggestions must be shown in case of wrong input.

REQ-4: The error message should be colored in red (non-functional requirement).

REQ-5: The system must verify the user's NID (TBD).

REQ-6: The system must send OTP to verify the user's provided Email/Phone.

REQ-7: The system must save the user’s information to the database.

REQ-8: The system must show a registration confirmation message to the user.

REQ-9: The system must redirect the user to the login page after registration is confirmed.

4.1.2 Login

4.1.2.1 Description and Priority

Users must log in to the system to access the full features that our system provides. They will be authorized to use all features once they log in like renting an item, giving any item as rent, making payment, etc. As most services will be available after the user is logged in. So, the login (authorization) functionality has a 'high' priority (8 out of 9).

4.1.2.2 Stimulus/Response Sequences

- Click Login and get redirected to the login page/window.
- Displays Email and Password user-input area for the user to type.
- Provide Email and password to log in.
- Validates the input sections.
- Click the Submit/Login button.
- Verifies Email and password
- Get redirected to the Homepage with all service availability.

4.1.2.3 Functional Requirements

REQ-1: The system must allow the users to enter their Email and password.

REQ-2: The system must validate the input sections.

REQ-3: The error message should be colored in red (non-functional requirement).

REQ-4: The system must verify the user by matching through the database.

REQ-5: The system must show a login successful message to the user.

REQ-6: The system must redirect the user to the Homepage after login is successful.

4.2 Search

4.2.1 Description and Priority

Search allows the user to find specific renting items quickly and efficiently. This is not the most prior feature but on a priority scale, it is 5 out of 9. Search allows the user to be comfortable using the app and reduces the overlook of renting products available on the system.

4.2.2 Stimulus/Response Sequences

- Click on the search box
- Type the search keyword
- Optionally user could click the enter button
- Expected results should be shown while the text of the textbox is changing.
- At the event of enter or search icon click all related search results will be shown.

4.2.3 Functional Requirements

REQ-1: Search box should be clickable

REQ-2: Search box should be writable.

REQ-3: Search query should be executed successfully on the database

REQ-4: Search result should be shown on the page on text change.

REQ-5: Search results should also be shown on the icon or search button click.

4.3 Profile Management

4.3.1 Description and Priority

These features will provide usability and customization to the users. The priority is 8 on a scale of 9. By using this feature users could update their profile information. This feature helps the users to prove their identity in case of renting. Profile management also ensures that the user always puts up-to-date information in the system.

4.3.2 Stimulus/Response Sequences

- User will select the profile icon from the bottom bar of the home screen.
- After redirecting to the profile page.
- Click on the change picture option.

- Option will pop up to choose pictures from the files or the user can directly take snaps from the camera to upload.
- Click the change button beside the phone number field to change the phone numbers
- An OTP is sent on the edited phone number.
- After verifying the OTP the new phone number will be updated.

4.3.3 Functional Requirements

REQ-1: Upload box to choose an image.

REQ-2: The image should be uploaded to the database.

REQ-3: Updated image should be shown on the profile page.

REQ-4: OTP will send the updated phone number.

REQ-5: OTP should be verified by the system.

REQ-6: The phone number should be changed upon OTP verification.

4.4 Upload Product Information

4.5.1 Description and Priority

Uploading products is a crucial part of the system. The renter should have the ability to upload the image, video, and description for his product. As the feature is a core part of the system, the priority level is 9 on a scale of 9. By using this feature, renters upload the image of the product to the system which is later viewed by the customer.

4.5.2 Stimulus/Response Sequences

- Renter logged in to the system.
- Click the new post button.
- Fill up the required field such as title, description, location, and renting price.
- Upload 3 to 4 images of the product or a video (maximum 1 min) of the product.

4.5.3 Functional Requirements

REQ-1: Click add new post button and should redirect to the form for the post.

REQ-2: The text box should be clickable and writable.

REQ-3: The image should be uploaded from the gallery or from the camera.

REQ-4: All information should be saved on the database.

REQ-5: New posts should be available on the renting service list.

4.5 Renting a Product

4.4.1 Description and Priority

Product renting is one of the cores and major features of this system. Users will be able to rent the products that are available on the system. This is our topmost priority feature which is priority level 9 on a scale of 9.

4.4.2 Stimulus/Response Sequences

- User will browse through the list of all available renting items according to his/her location.
- The user then selects his desired item.
- The user then again confirms the orders.
- After the successful order an automated generated email and notification will be sent to the renter.

4.4.3 Functional Requirements

REQ-1:User should be able to view the recent renting services available in his/her area.

REQ-2: The user should be able to view the item details page.

REQ-3: The renting item should be confirmed by the user.

REQ-4: After the confirmation, the system will write the renting information of the user on the database and at the same time the renter will be notified by an automated email.

4.6 Payments

4.6.1 Description and Priority

Payment is another core feature of the system with priority level 9 out of 9. In this system, by using this feature the user should be able to pay for the renting product and the renter should be able to receive the payment and he should transfer the payment to this bank account of MFS. Users should also be able to pay via credit card or MFS.

4.6.2 Stimulus/Response Sequences

- After confirming the renting user is redirected to the payment page.
- Users have the option to choose MFS or credit card.
- If the user chooses MFS he/she will be redirected to the MFS payment page.
- In the case of a credit card system the user will be redirected to the visa or MasterCard gateway to complete their payment.
- Customer and Renter will be notified by email that the payment is received.
- After the renting period the renter will be able to withdraw the payment.

4.6.3 Functional Requirements

REQ-1: Payment should be in real-time.

REQ-2: System will call payment API to get the payment done.

REQ-3: System will check the required balance.

REQ-4: OTP will be sent to the customer for verification of the payment.

REQ-5: Both customer and renter will receive an email or SMS notification.

4.7 Admin control panel

4.6.1 Description and Priority

The Admin user(super-user) will manage the whole system. The admin can perform CRUD operations on every data table of the database. He can view, add, update, and delete any data. He can see the statistics and financials, and also help the users in some cases. The admin can add staff accounts to the system as well as ban any users if necessary. So, the admin control panel (admin dashboard) has a 'high' priority of 8 on a scale of 1 to 9.

4.6.2 Stimulus/Response Sequences

- Admin will log in to the system with his account and get redirected to his Dashboard.
- Displays the overall statistics, financial expenses, and revenue here.
- Displays the users, items, renting, and payment lists.
- Performs CRUD (create, read, update, delete) operations to the list.
- Manages the system through here.
- Helps users in need or bans users if necessary
- Generates daily/weekly/monthly reports of the system's business outcomes, financials, expenses, and revenue through here.

4.6.3 Functional Requirements

REQ-1: The system must verify if the admin has logged in and redirect the user to his dashboard.

REQ-2: The system must display proper and updated statistics.

REQ-3: The system must show data lists.

REQ-4: The system must allow the admin to perform CRUD operations on the data.

REQ-5: There should be a ban button beside the users to ban them if necessary.

REQ-6: The system must generate detailed reports for the admin.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

1. The system should load in less than 0.01 seconds at all times.
2. Response time for any activity should be faster.
3. Should perform properly on any platform.
4. It should be accessible and easy to operate for all kinds of people.
5. It should be able to handle a high volume of workload.
6. A large number of people should be able to use it at the same time.
7. System should not be slow if more people are in the system.
8. Transferring from one page to another page should be faster.

9. Execution time of the system should be very less.
10. The system should take less storage space.
11. System should respond to any kind of query quickly.

5.2 Safety Requirements

The safety requirements are those requirements that are defined for the purpose of risk reduction. Once the safety requirements have been found out, designers must be given access to all of their details so they can avoid/reduce certain risks.

- Users of the system shouldn't be harmed by it.
- This program will simplify the consumer order procedure.
- It should attempt to provide the best quality experience.
- Important information should also be kept in hard copy.
- An important topic is certificate authorities. For security and consistency, all certificates must be current or renewed.

5.3 Security Requirements

Before being implemented, new software features must go through working the way of critique, justification, and analysis. This is because software owners don't just accept any new features that are deployed.

- Storage, IPS, and System firewalls can all be adjusted and expanded. System logs need to be kept on 24/7.
- Private and crucial information relating to clients and staff must be stored in encrypted form.
- A current version of the software for systems and stakeholders must be utilized.
- Multiple factor authentication should be employed in the system.
- This software will verify each user's identity when they log in.
- Authorize the user to do the actions that are permitted for the users whenever the user takes any activity, and display an error notice if an illegal action is discovered.
- System will utilize a secure database.

5.4 Software Quality Attributes

Software Quality Attributes are characteristics that make it easier for software testing to measure how well a software product performs. Software architects can ensure that a software program will function according to the client's demands thanks to high scores in the software quality attributes.

- The software should be user-friendly.
- Software should have easy user interfaces.
- Software should be understandable.
- System should be an active software.
- Software should have increased process capabilities.
- Software should be protected and stable.

5.5 Business Rules

Business rules define in plain language the procedures for making choices, mathematical formulas, business terms, and fundamental truths and presumptions.

1. Existing business policies should be maintained properly.
2. Shouldn’t keep any kind of feature which can be harmful in the future.
3. For system benefit purposes should not break any kind of international rules.
4. Should not do anything that will break business committee rules.
5. Should not keep any feature that can do harm to other systems.

6. Other Requirements

6.1 Database Requirement:

Databases should be used according to the data. The stored procedure must be there for executing queries, not inline queries.

6.2 Object-Oriented Approach:

Object-oriented programming concepts must be used for implementation.

Appendix A: Glossary

Application Programming Interface (API) is a set of resources and tools that an operating system provides to programmers so they can design software programs, such as protocols and subroutine definitions.

HyperText Transfer Protocol (HTTP) An application protocol that adheres to RFCs 7230 and 7540 for distributed, collaborative, and hypermedia information systems.

HyperText Transfer Protocol Secure (HTTPS) Hypertext Transfer Protocol (HTTP) within a connection secured by Transport Layer Security (TLS) or its precursor, Secure Sockets Layer, is a communications protocol for secure communication across a computer network (SSL).

Simple Mail Transfer Protocol (SMTP) It is used to send and receive email. It is sometimes paired with IMAP or POP3 (for example, by a user-level application), which handles the retrieval of messages, while SMTP primarily sends messages to a server for forwarding.

Technology Development Program (TDP) The Technology Development Programme supports initiatives that aim to create and incorporate technologies to advance materials, processes, and techniques in both cutting-edge and emerging fields as well as in established industries.

Mobile Financial Services (MFS) An electronic prepaid card with M-Banking capabilities that uses ATMs and various electronic communication technologies, such as mobile phones, is known as a digital wallet or money.

Create, Read, Update and Delete (CRUD) In relational and NoSQL databases, these terms refer to the four fundamental operations for establishing and managing persistent data elements.

One-time password (OTP) As the name implies, systems provide a method for logging into a network or service using a special password that can only be used once. The least secure and most widely used authentication method is the static password.

National Identity Card(NID) Similar to the Bangladeshi driver's license, which is also a biometric, smart identity card with a microchip inserted, the NID is a government-issued photo ID.

Random-access memory(RAM) RAM is a volatile memory, which means that when the computer is shut off, the data in RAM is lost. It is a computer's or a smartphone's primary memory.

Read-only memory(ROM) An alternative type of storage medium used in systems and other electronic devices that can be read-only is called read-only memory (ROM).

User Interface (UI) The point of human-computer contact and communication in a device is the user interface (UI). This can include desktop displays, keyboards, mice, and other pointing devices.

iPhone Operating System(IOS) It is the mobile operating system for all iPhones and is released by Apple Inc. Apple products including the iPod, iPad, iPhone, and others run iOS.

Central processing unit(CPU) Central Processing Unit or CPU. It is also referred to as the computer's brain. It executes computer programs and instructions and carries out all fundamental arithmetic and logical processes.

Global Positioning System(GPS) Positioning, navigation, and timing (PNT) services are offered by this utility, which is owned by the United States.

Graphics processing unit(GPU) It is a specialized processor that was initially created to speed up the processing of visuals. GPUs can process a lot of data at once, which makes them valuable for applications like machine learning, video editing, and gaming.

Software Development Kit(SDK)SDKs are tailored to a particular hardware platform and operating system setup. For instance, the iPhone SDK, Mac OS X SDK, and Windows 7 SDK.

Java™ Development Kit (JDK™) Along with the Java Virtual Machine (JVM) and the Java Runtime Environment (JRE), the Java Development Kit (JDK) is one of the three primary technology packages used in Java development (Java Runtime Environment).

Appendix B: Analysis Models

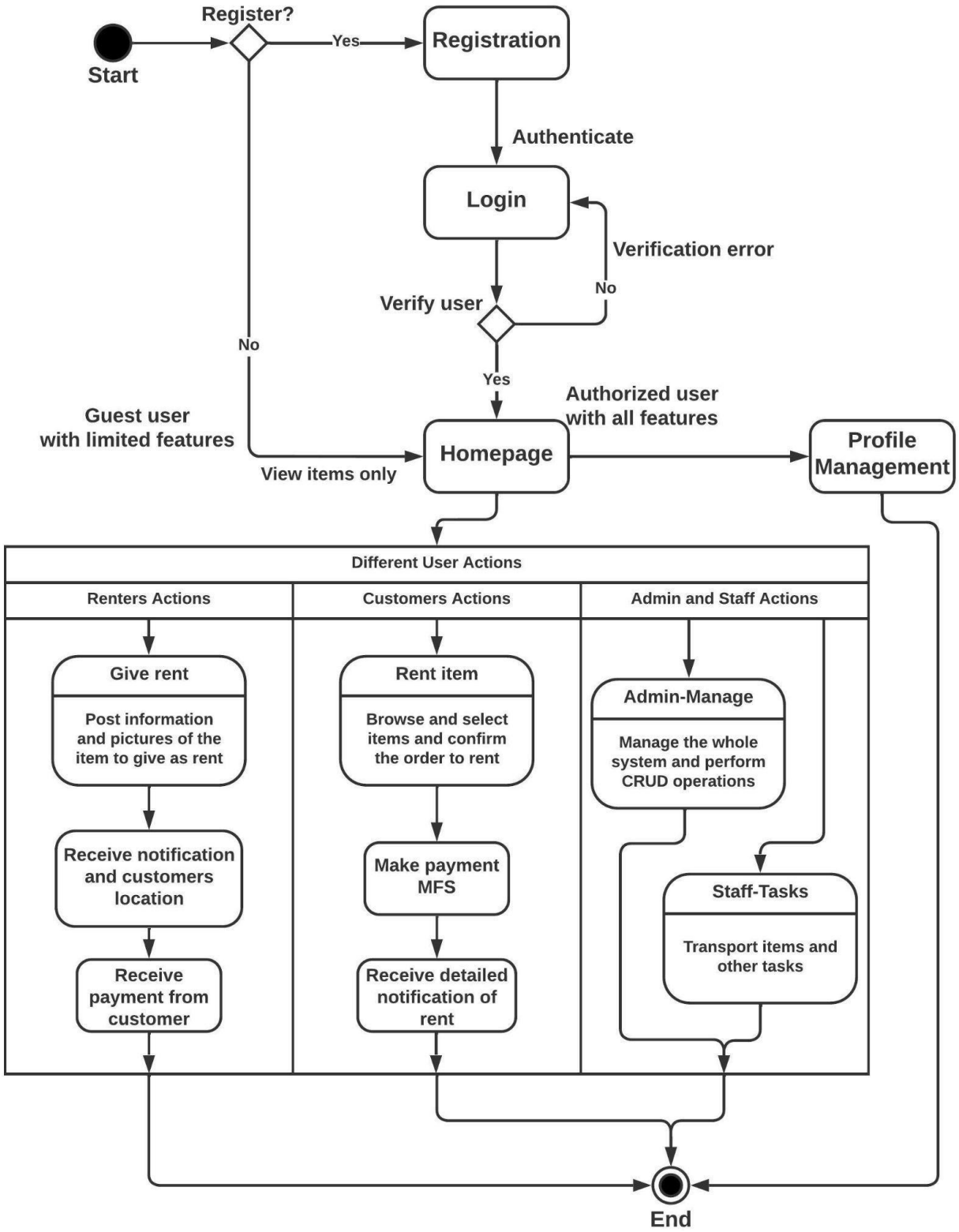


Fig: State Diagram

Appendix C: To Be Determined List

Product Backlog

Task Name	Task Details	Priority	Status
Search Features	Features that will be included in the project to be implemented.	Medium	Completed
Design database and stored the procedures	Design database for all the features that will be included in the project.	High	Completed
Design and implementation of Admin panel	Writing code and creating login username and password.	High	Completed
Design and implementation of Home panel and Product Rent for admin panel	Where Admin will access some features like details and contact users, admin can delete products and register users as well.	High	Completed
Design and implement account panel	Where users can create their account by filling out the required information.	High	Completed
Design and implement payment method	Where users can have many options for payment.	High	Completed