Software Requirement Specification(SRS) for

Scrap Trading System Portal

1. Introduction

1.1 Purpose:

This document is meant to delineate the features of Scrap Trading System Portal, so as to serve as a guide to the developers on one hand and software validation document for the prospective client on the other.

It is a system design especially for large, premium and small car rental business. The car rental system provides complete functionality of listing and booking car. In this system, Tourism and Travelling facilities also provide.

1.2 Scope:

This system allows the Users to easily Buy or Sell the Scrap whenever they need with use of this system.

1.3 Definitions:

STS- Scrap Trading System

SRS- Software Requirement Specification

GUI- Graphical User Interface

1.5 Overview:

The Scrap Treading System is a platform through which we will connect scrap dealer/merchants with people who are possessing scrap in house and want to sell it at reasonable price. At this platform we will take description, type, quantity, photos of scrap from seller and put a post on website where other people [buyers/dealer] can explore it and can put bid for it. Then seller will decide who to sell according to various factors like price, pick up time, ease of transport, etc.

EXISTING SYSTEM

- ✓ An existing system need physically meet to trade Scrap.
- ✓ The seller has to go in the merchant's shop where seller has to show Scrap and then buyer will tell the amount and then they can negotiate accordingly.
- ✓ In the existing system seller have to take the scrap to buyer's shop.

NEED FOR NEW SYSTEM

- ✓ The new system is totally computerized system.
- ✓ A new system provides features like time efficiency to show scrap details, bidding system and whatever the user will give the feedback to the admin.
- ✓ This system provides ease in trading the scrap and perfect amount to buy or sell the scrap without much effort in bargaining.
- ✓ The bidding can be easily done by user in the system.

2.Overall Description:

The main page of the website will contain various available post of scrap to be sold. Through this page anybody who is visiting this website will get to see these posts which will be ordered according to latest uploaded post in ascending manner. Various filters will be provided for sorting all post as buyer's requirement. Filtering conditions like weight, price, type, material, locations etc. This page will also contain approximate current rates of different types of scrap material. The page will also provide Calculator as feature to the users to make their job easy.

For bidding user (buyer) must login first. If a user is not registered on the website, then they have to register first using register option. After successful login user can bid for scraps. Buyers or users may filter scraps according to various filtering conditions like weight, price, type, material, locations etc.

For uploading post to sell scrap Sellers also have to login first. If a seller is not registered on the website, then they have to register first using register option.

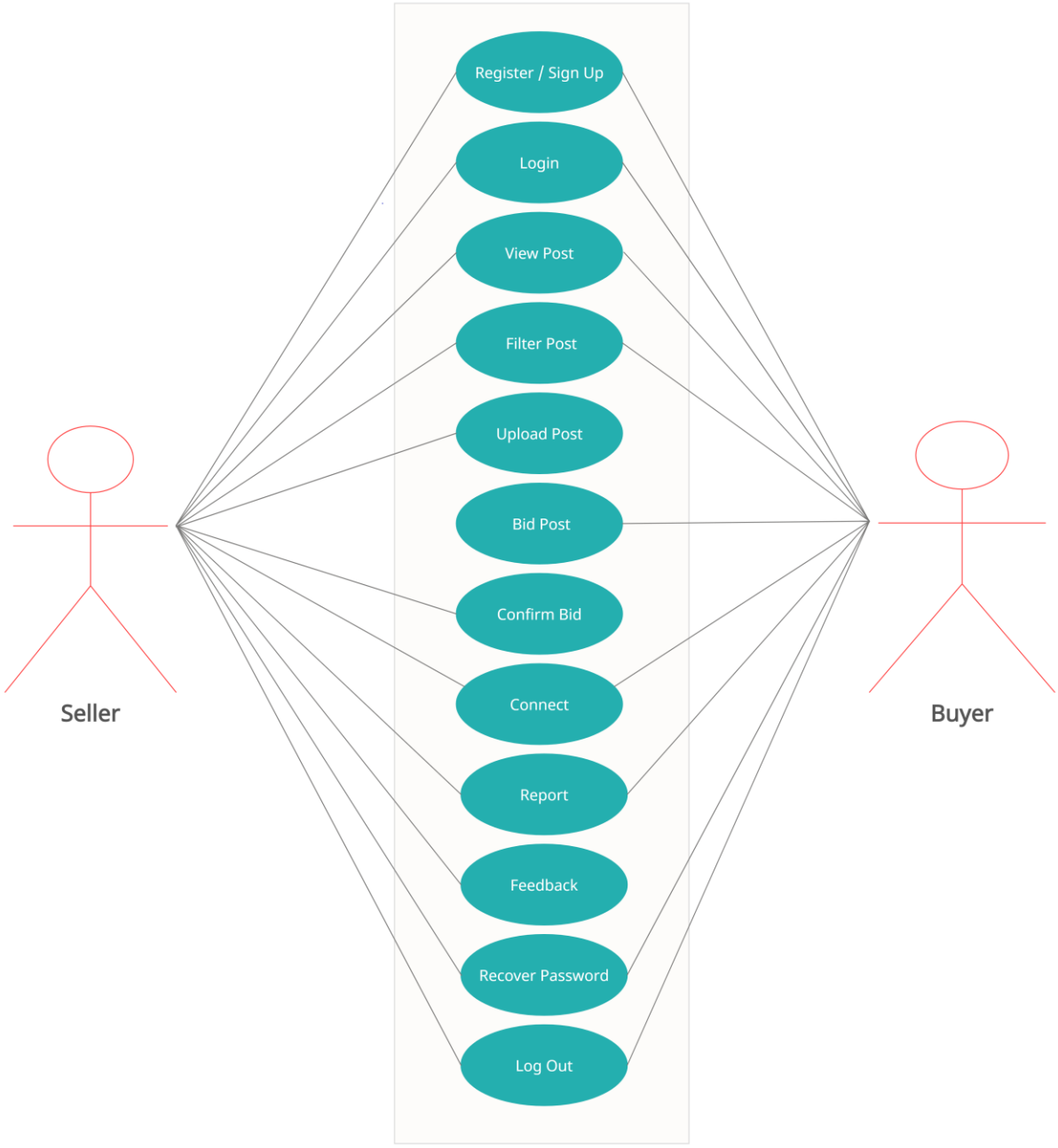
2.1 Product Functions:

Scrap Trading System should support this use case:

Use Case Diagrams : A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor - Sender, Secondary- Actor Receiver.

Use case diagram for admin

Use Case diagram for User



2.3 User Characteristics:

User should be familiar with the terms like login, register, bidding etc.

2.4 Principle Actors:

2 Principle Actors are Users and Administrator.

2.5 General Constraints:

A full internet connection is required for STS.

2.6 Assumptions and Dependencies:

Working of STS need Internet Connection.

3. Specific Requirements:

3.1 FUNCTIONAL SPECIFICATION

User Specification

Admin:

Admin can see uploaded post and user's information. Admin can view feedback and enquiry. If report is received about fraud by any user or complain about any post then admin can warn user or remove them.

User:

1.Seller :

Seller can post about scrap to be sold, with required information. And select the most suitable bid and connect to that bidder.

2.Buyer :

Buyer can see the post of scrap to be sold, bid for desired scrap . If he win the bid then buyer can connect to seller.

MODULE SPECIFICATION

User

1.Seller

•View Available Posts:

It is a system design especially for various type of scrap. The user can view Available scrap post .

•Upload Scrap Posts:

It is a system design especially for various type of scrap. Upload the scrap post with information.

•Confirm bid:

Seller can see top biddings for that post and can select the most suitable bid.

•Connect:

Seller can then connect to bidder of selected/winning bid.

•Give Feedback:

The Seller will give the feedback to the admin.

•Report:

The Report about any fraud can easily do by seller.

2.Buyer

•View Available Posts:

It is a system design especially for various type of scrap. The buyer can view Available scrap post and Buyer can bid for that post.

•Bidding for Scrap:

The Buyer can view Available posts and can bid for desired post.

•Connect:

If bidding is get selected of buyer ,then they can connect to seller of that scrap.

•Give Feedback:

The buyer will give the feedback to the admin.

•Report:

The Report about any fraud can easily do by buyer.

Admin

Dashboard:

In this section admin can view the overview of the STS (

Vehicle Brand:

Admin can create/edit/delete vehicle brands

Vehicles:

The Admin can add the car so that The user can see the available cars and book the car.

Admin can also edit and delete the cars.

Bookings:

Admin can manage the bookings (confirm and cancel the booking)

Manage testimonials:

Admin can manage the testimonials (Active and Inactive the testimonials).

Manage Contact us query:

Admin can manage Contact us query.

View Feedback:

The admin easily view the feedbacks and solve the query.

Registered users:

Admin can view the registered users.

Manage pages:

Admin can update the pages data information.

Contact info:

Admin can update the contact info.

Manage Subscribers:

Admin can manage subscribers.

3.2 Non-Functional Requirements:

Following Non-Functional Requirements will be there in the insurance to the internet:

(i) Secure access to consumer's confidential data.

(ii) 24X7 availability.

(iii) Better component design to get better performance at peak time.

(iv) Flexible service based architecture will be highly desirable for future extension. Non-Functional Requirements define system properties and constraints.

Various other Non-Functional Requirements are:

- Security
- Reliability

- Maintainability
- Portability
- Extensibility
- Reusability
- Compatibility
- Resource Utilization

3.3 Performance Requirements:

In order to maintain an acceptable speed at maximum number of uploads allowed from a particular customer as any number of users can access to the system at any time. Also the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times.

3.4 Technical Issues:

This system will work on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE,mozzila firefox,chrome etc.

HARDWARE REQUIREMENT

Hardware requirements for insurance on internet

will be same for both parties which are as follows:

RAM	2 GB
Hard disk	320 GB
Processor	Dual Core

Software Requirements

Client side:

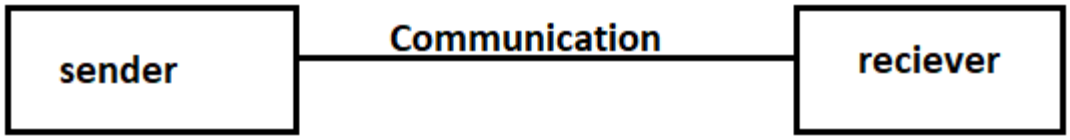
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

Server side:

Web Server	TOMCAT
Server side Language	ANGULAR
Database Server	MYSQL
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

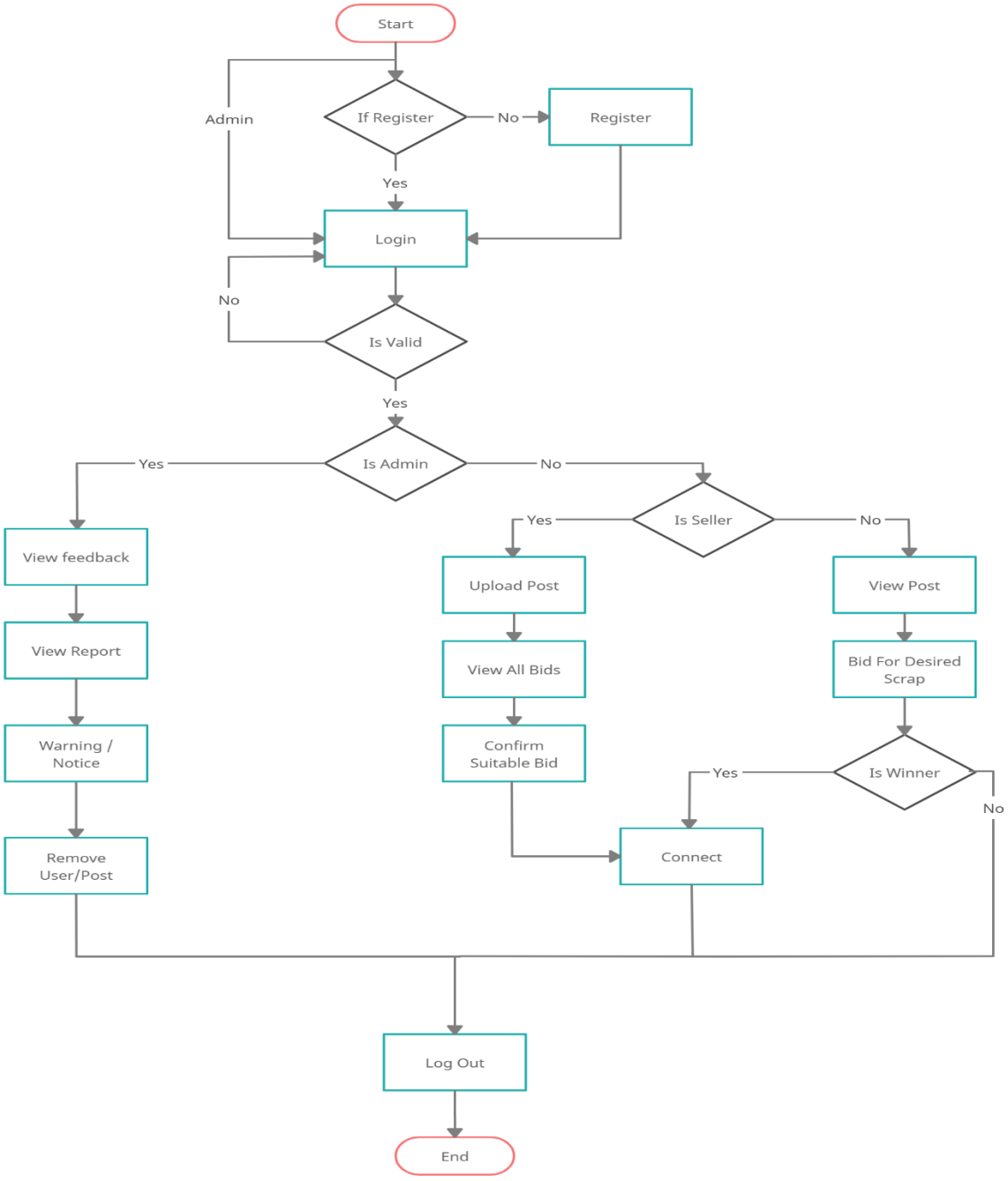
Communication Interfaces:

The two parties should be connected by LAN or WAN for the communication purpose.



5.System Design Specification:

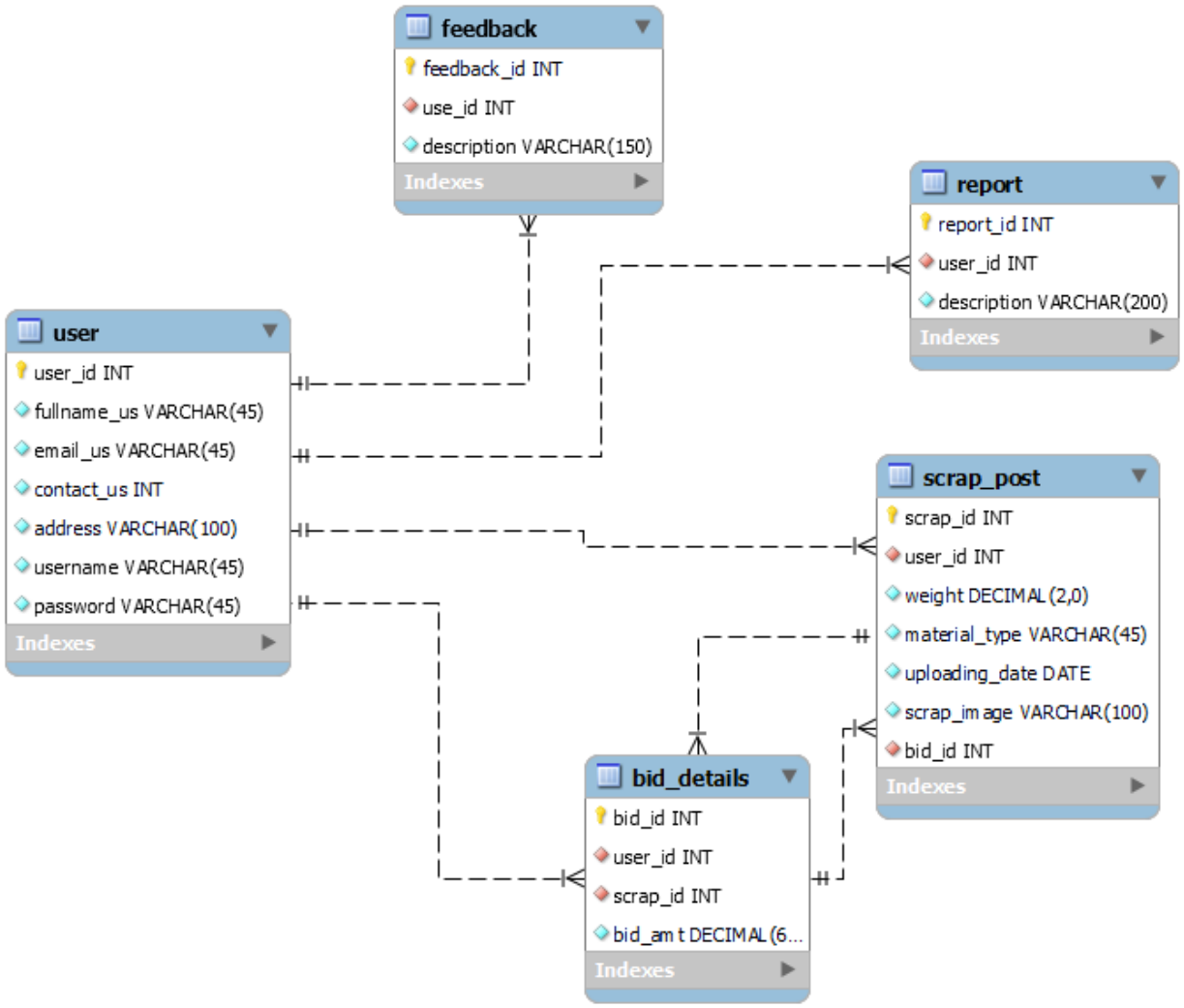
System Flow Chart



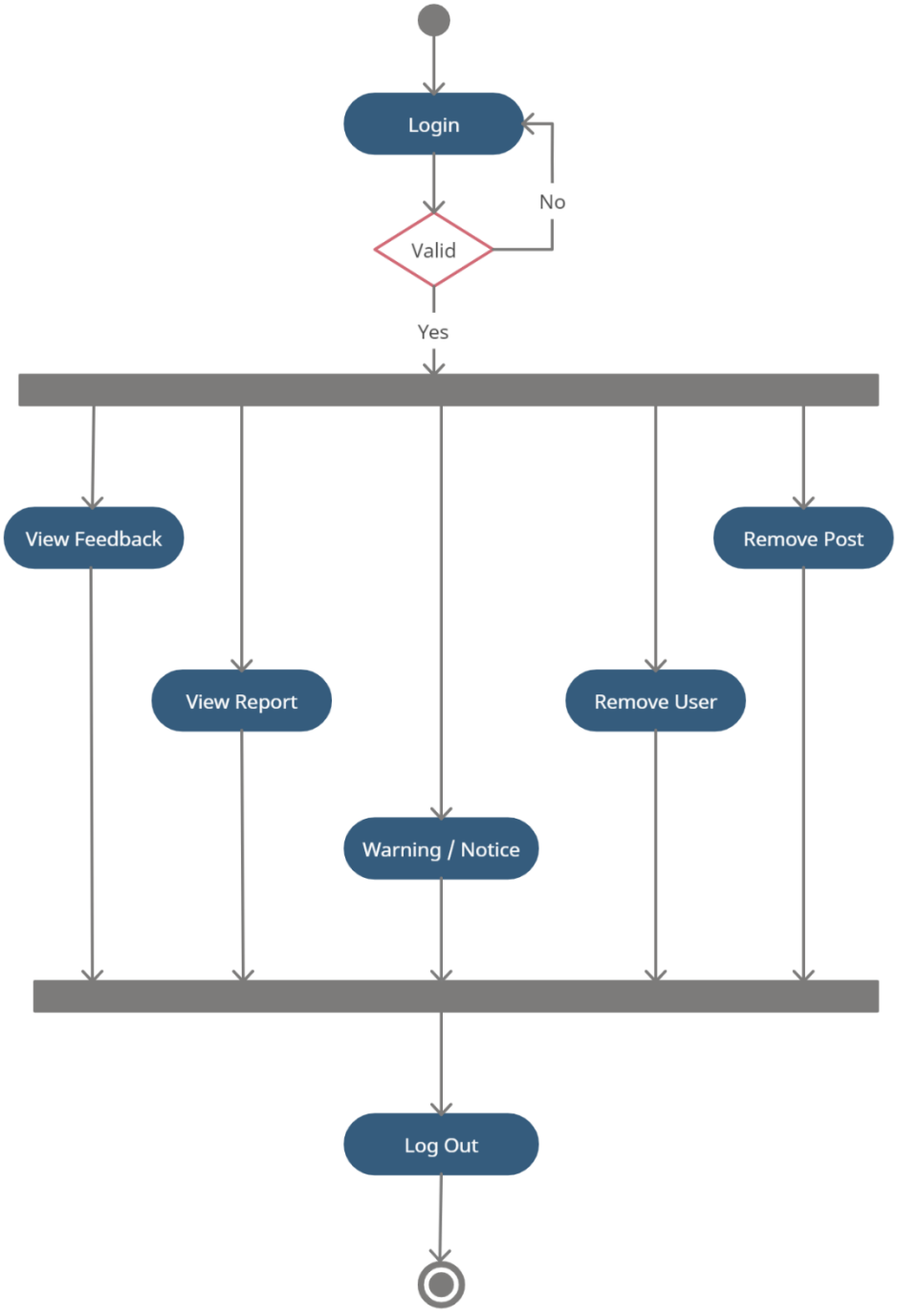
ER DIAGRAM

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

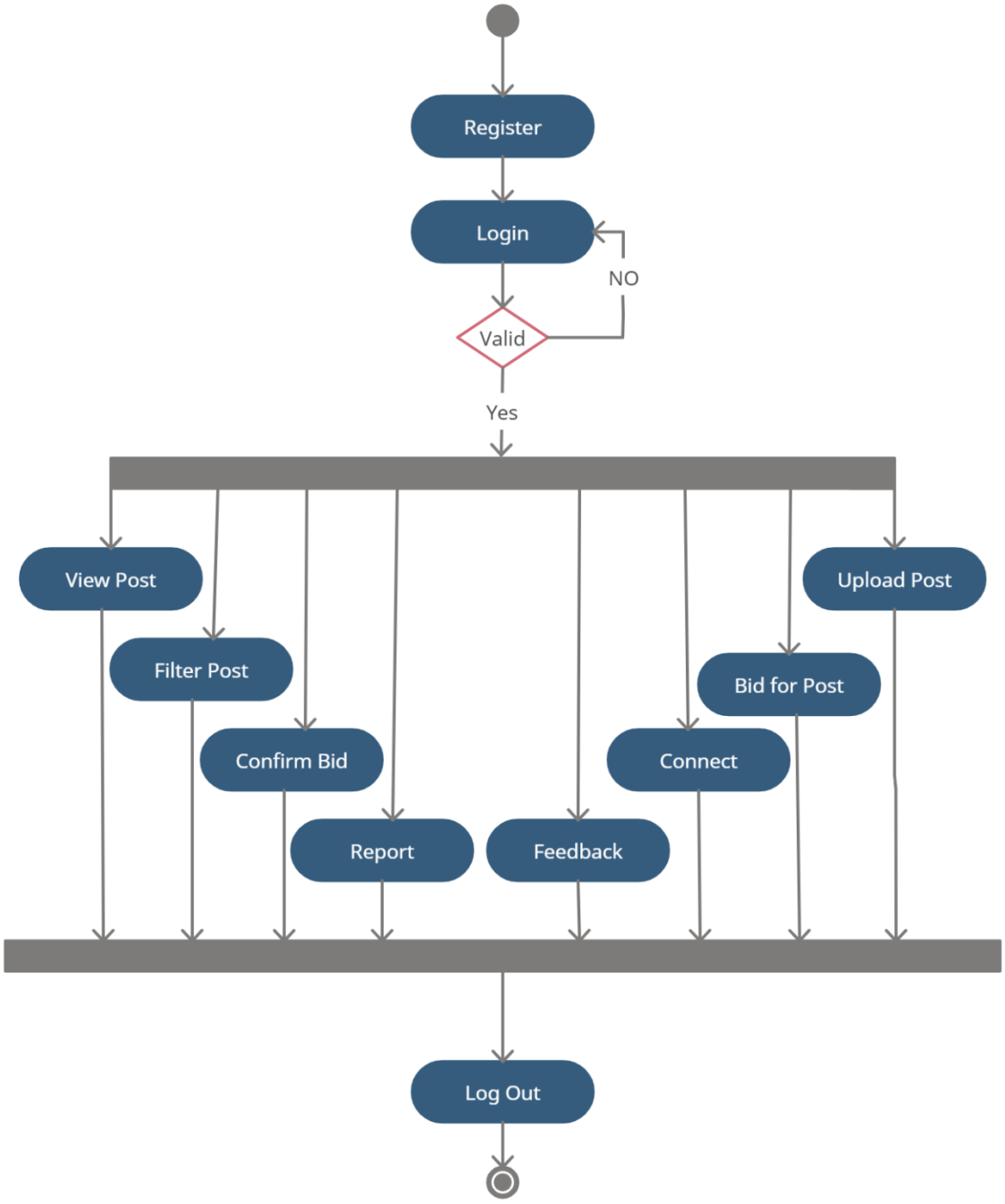
- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.


feedback
feedback_id INT
use_id INT
description VARCHAR(150)
Indexes
report
report_id INT
user_id INT
description VARCHAR(200)
Indexes
user
user_id INT
fullname_us VARCHAR(45)
email_us VARCHAR(45)
contact_us INT
address VARCHAR(100)
username VARCHAR(45)
password VARCHAR(45)
Indexes
scrap_post
scrap_id INT
user_id INT
weight DECIMAL(2,0)
material_type VARCHAR(45)
uploading_date DATE
scrap_image VARCHAR(100)
bid_id INT
Indexes
bid_details
bid_id INT
user_id INT
scrap_id INT
bid_amt DECIMAL(6...
Indexes

Activity Diagram for admin



Activity Diagram for user



DATABASE DESIGN

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MS Access database has been chosen for developing the relevant databases.

User Registration:

Table Name	user
Description	This table is provide the information about User registration
Primary Key	Id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It is store User id
2	fullname	varchar(45)	Null	It is store User Full name
3	email	varchar(45)	Null	It is store email address of User
4	username	varchar(40)	Null	It is store Username
5	password	varchar(40)	Null	It is store Password
6	contactNo	varchar (10)	Null	It is store Contact no
7	address	varchar(45)	Null	It is store Address

Scrap Table:

Table Name	scrap_post
Description	This table is provide the information about Scrap Posts
Primary Key	Id
Foreign Key	user_id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It is store scrap id
2	city	varchar(45)	Null	It is store city of User
3	weight	varchar(45)	Null	It is store Weight of Scrap
4	material_type	varchar(40)	Null	It is store Description
5	scrap_image	varchar(40)	Null	It is store Images of Scrap
6	uploadin_date	CurDate()	Null	It is store Date of Upload

Bid Details Table:

Table Name	Bid_details
Description	This table store information about Bidding
Primary Key	Id
Foreign Key	user_id , scrap_id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	bidAmt	Decimal(10,2)	Null	It is store Bidding Amount

Feedback Table:

Table Name	feedback
Description	This table store information about feedback
Primary Key	Id
Foreign Key	user_id

Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	description	varchar(100)	Null	It is store Description of Scrap

Report Table:

Table Name	report
Description	This table store information about report
Primary Key	Id
Foreign Key	user_id

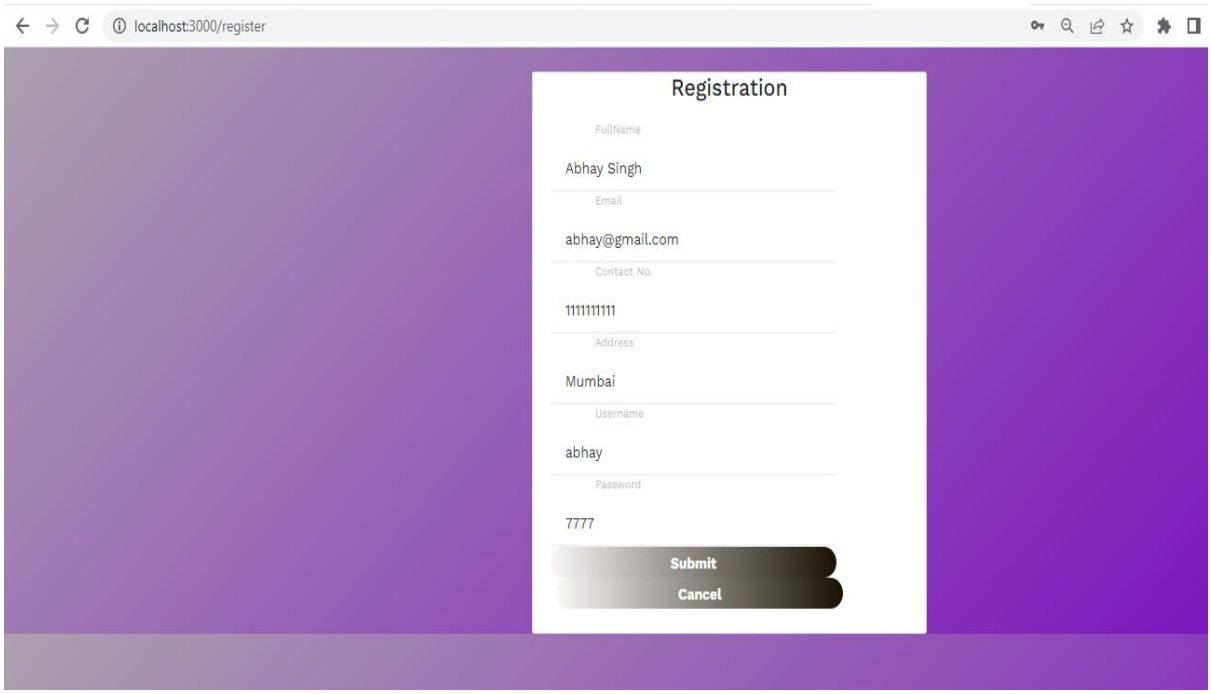
Sr. No	**Field Name**	**Data type(Size)**	**Constraints**	**Description**
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	description	varchar(100)	Null	It is store Description of Scrap

Future Scope:

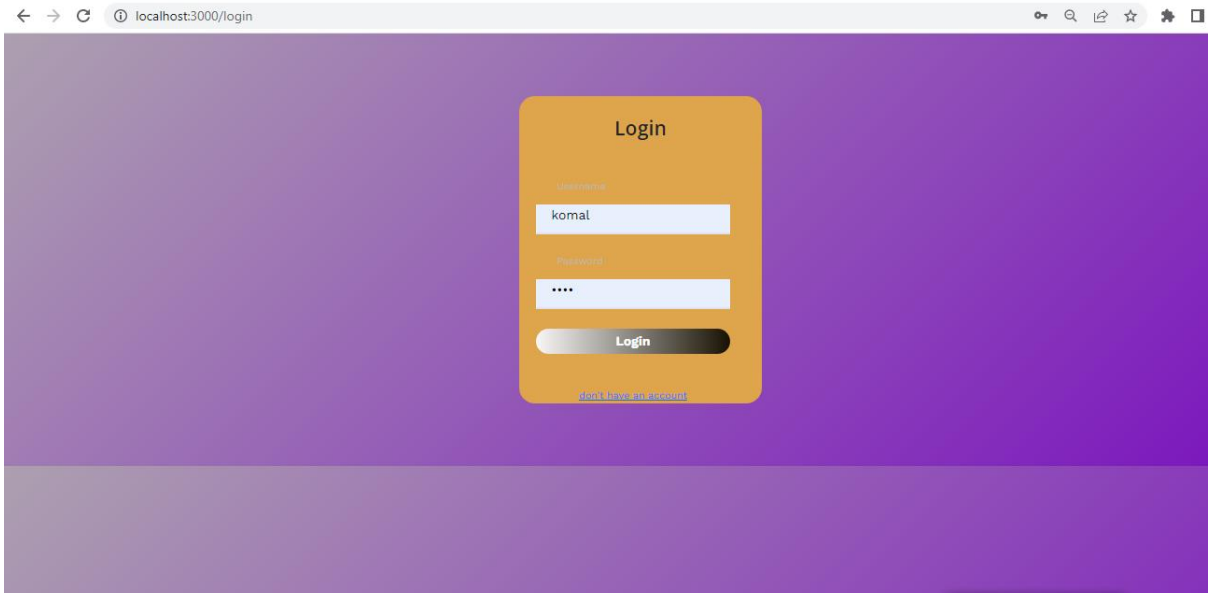
In future this system can also be added with additional feature like Online Payment Gateway, Online Transportation Booking and 360º view of scrap.

Screenshots

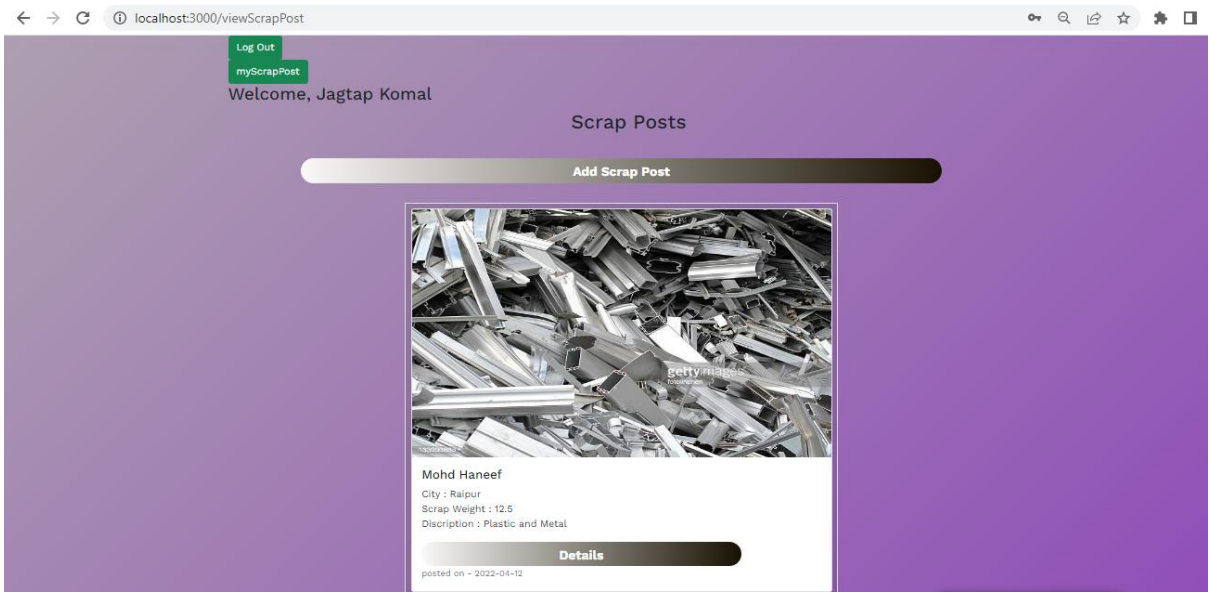
User Registration :



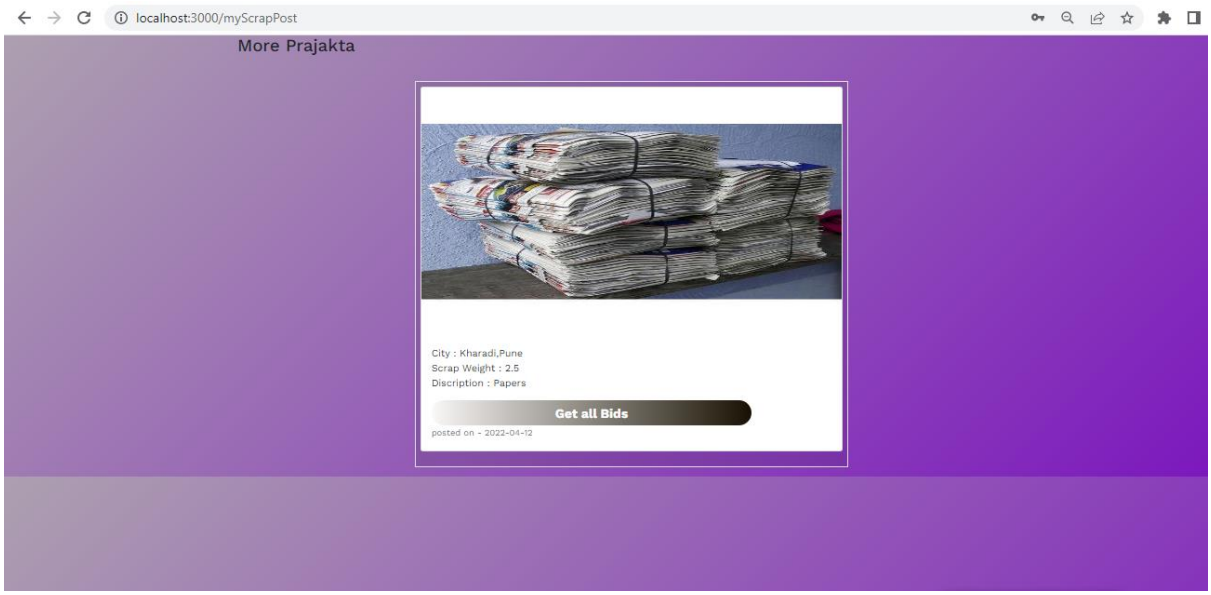
Login:



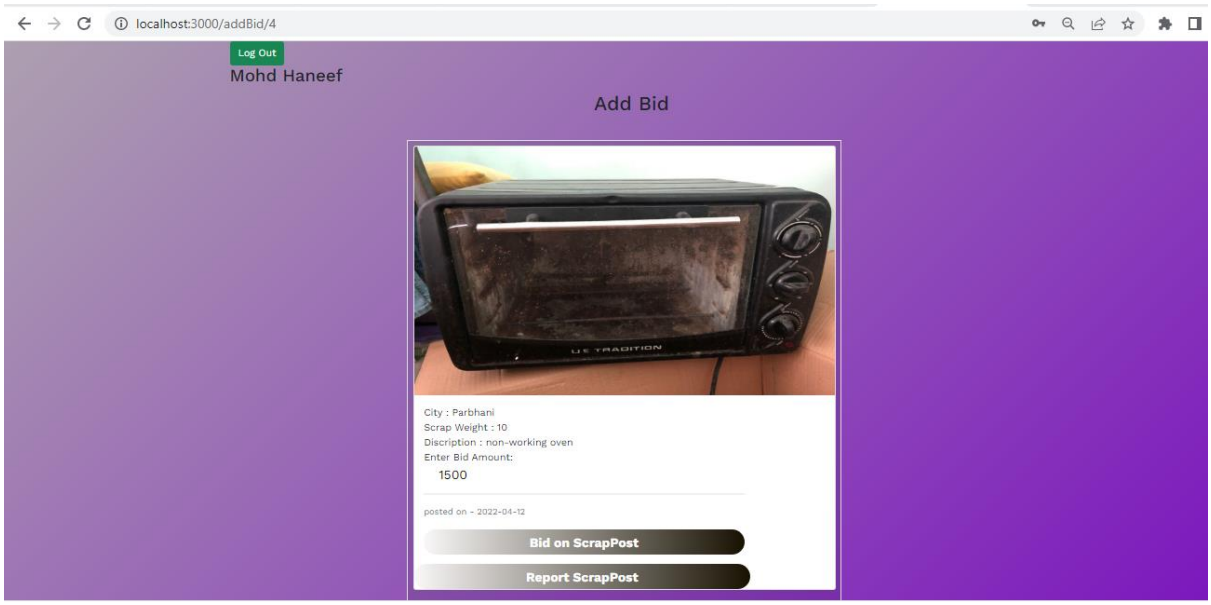
Scrap Post Page:



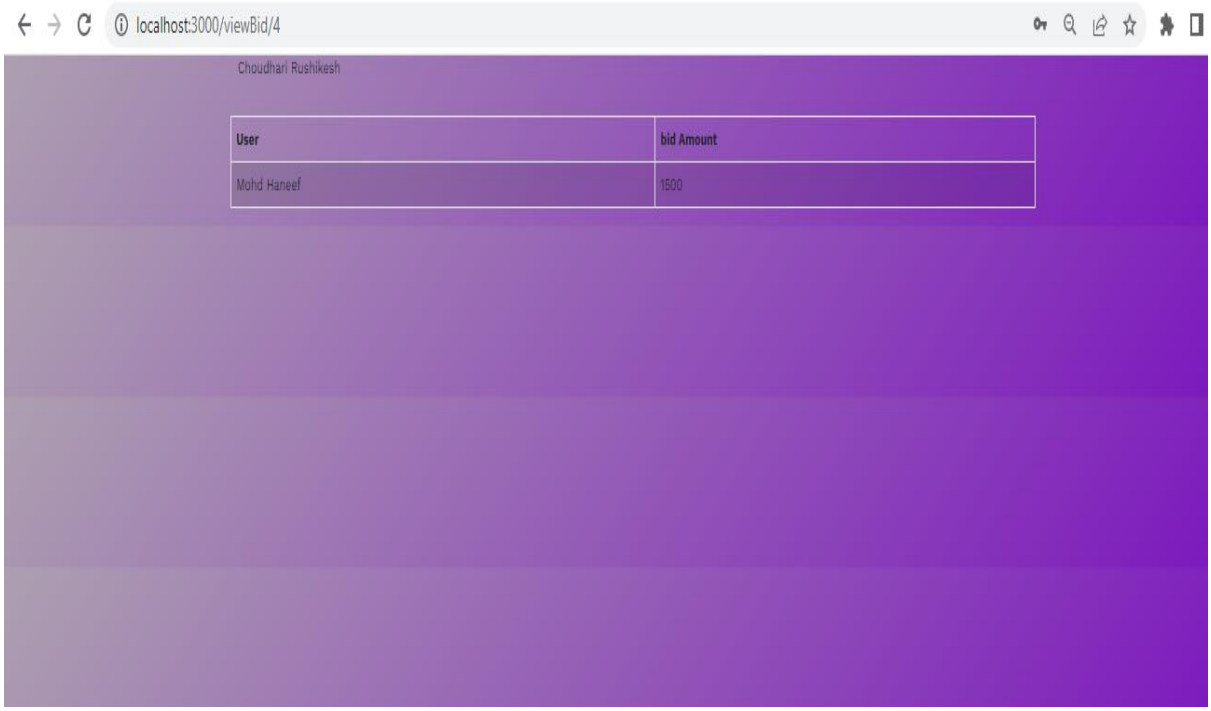
View Scrap Posts of User:



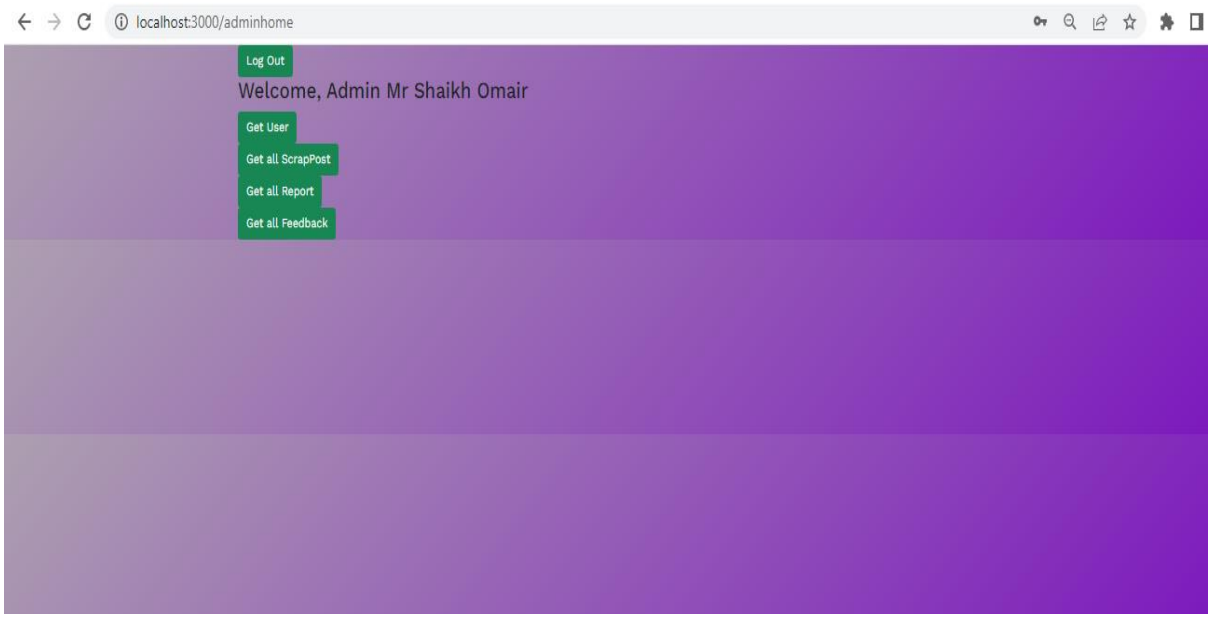
View individual scrap posts and bid :



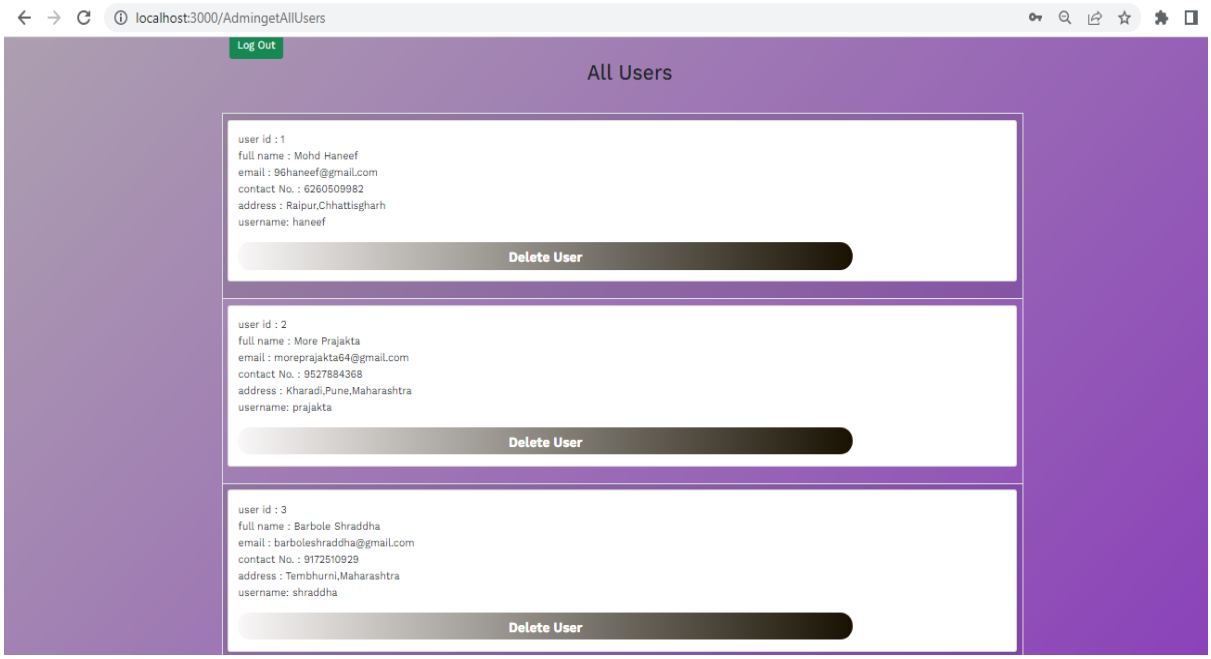
View all Bids:



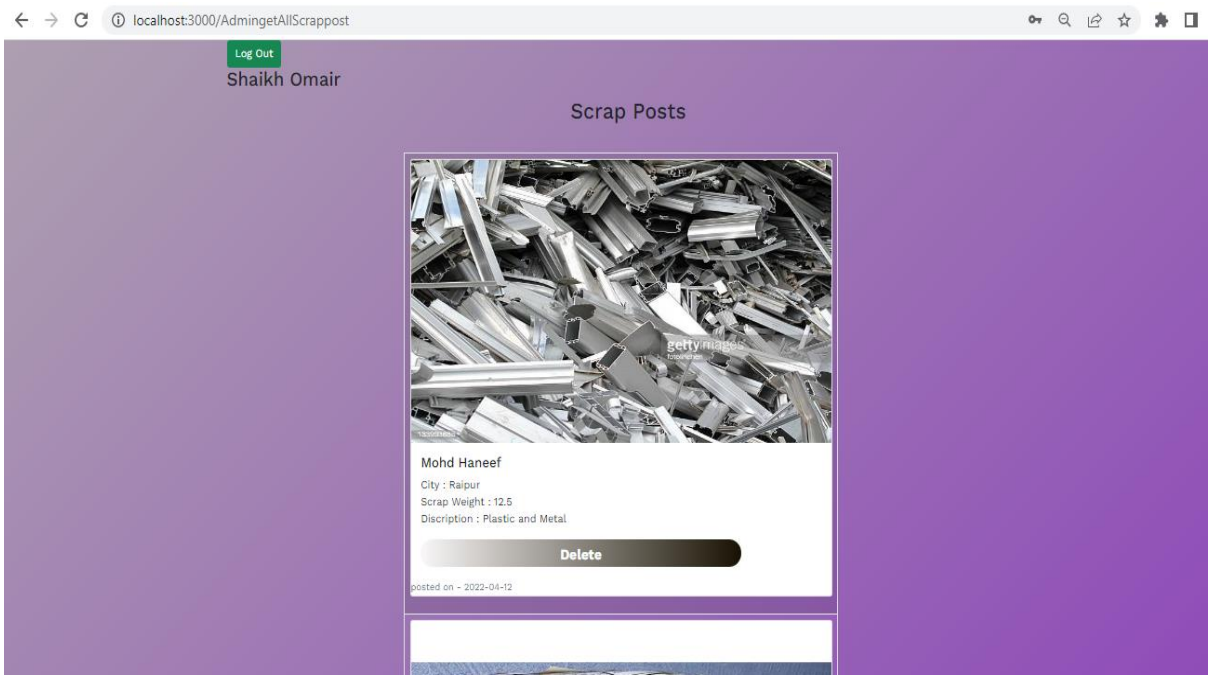
Admin Home Page :



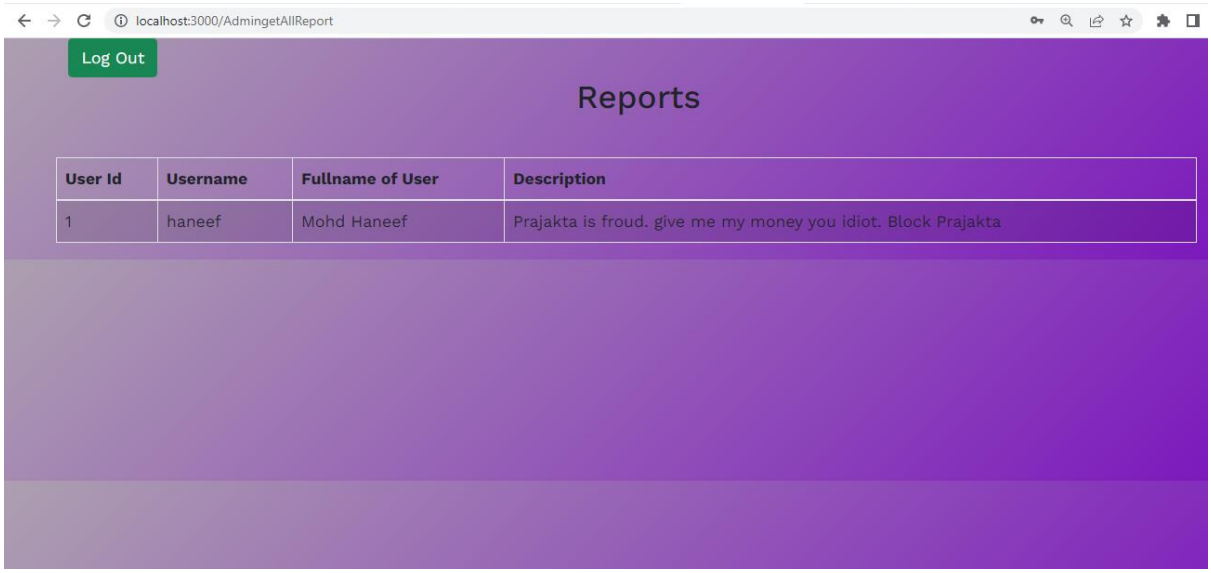
View all Users:



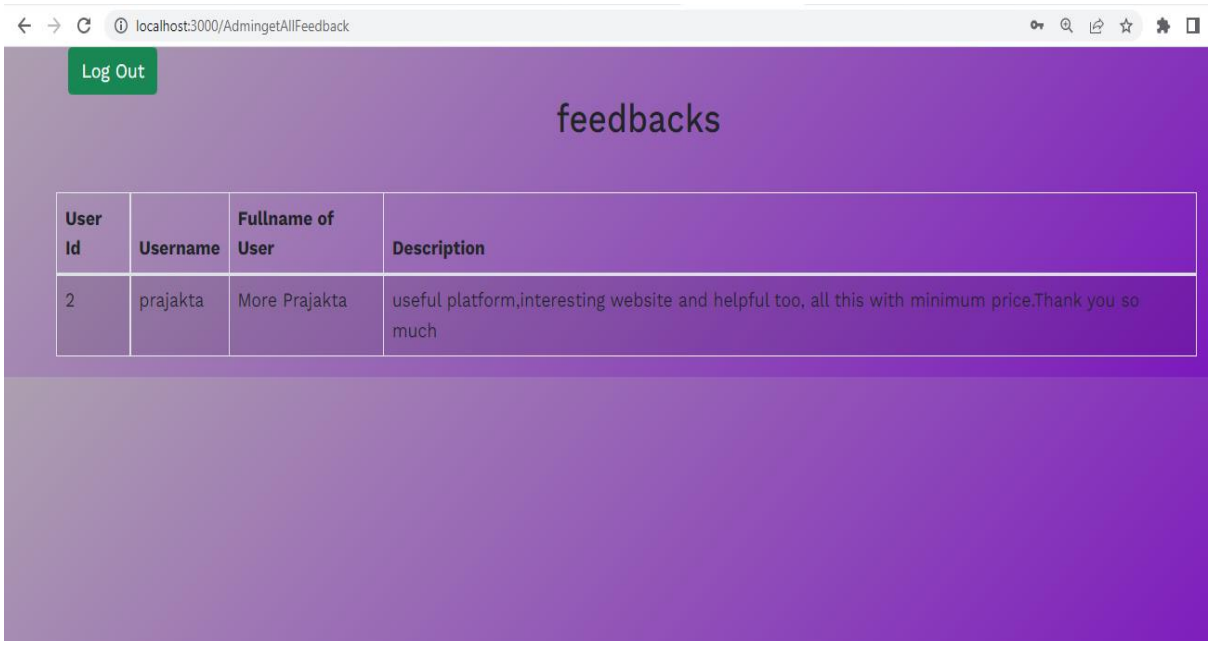
View All Scrap Posts:



View Reports:



View Feedback:



INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"SCRAP TREADING SYSTEM"

PG-DAC SEPT 2021

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1. INTRODUCTION.

Introduction:

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Problem Statement:

An existing system need physically meet to trade Scrap. The seller has to go in the merchant's shop where seller has to show Scrap and then buyer will tell the amount and then they can negotiate accordingly. In the existing system seller have to take the scrap to buyer's shop.

Aims and Objective:

The Scrap Treading System is a platform through which we will connect scrap dealer/merchants with people who are possessing scrap in house and want to sell it at reasonable price. At this platform we will take description, type, quantity, photos of scrap from seller and put a post on website where other people [buyers/dealer] can explore it and can put bid for it. Then seller will decide who to sell according to various factors like price, pick up time, ease of transport, etc.

- Simple database is maintained.
- Easy operations for the operator of the system.
- User interfaces are user accommodating and attractive; it takes very less time for the operator to use the system.
- The aim is to design a college website which implant update information of the college that should improve expertness of college record management.

2.OVERALL DESCRIPTION.

Proposed Methodology:

The main page of the website will contain various available post of scrap to be sold. Through this page anybody who is visiting this website will get to see these posts which will be ordered according to latest uploaded post in ascending manner. Various filters will be provided for sorting all post as buyer's requirement. Filtering conditions like weight, price, type, material, locations etc. This page will also contain approximate current rates of different types of scrap material. The page will also provide Calculator as feature to the users to make their job easy. For bidding user (buyer) must login first. If a user is not registered on the website, then they have to register first using register option. After successful login user can bid for scraps. Buyers or users may filter scraps according to various filtering conditions like weight, price, type, material, locations etc. For uploading post to sell scrap Sellers also have to login first. If a seller is not registered on the website, then they have to register first using register option.

Operating Environment:

Server Side:

Processor: Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

RAM: Minimum 4 GB

OS: Windows 10, Linux 6

Database: MySQL

Client Side (minimum requirement):

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 2GB

OS: Windows 7, Linux

Design and Implementation Constraints:

- The application will use JavaScript, ReactJS and CSS as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- SMTP protocol is used for Email communication.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Scrap Treading System is a web-based application, internet connection must be established.
- The Scrap Treading System will be used on PCs and will function via internet or intranet in any web browser.

3. Requirements Specification.

External Interface Requirements:

User Interfaces:

- All the users will see the same page when they enter in this website. This page asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:

- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.

This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces:

Web Browser:

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

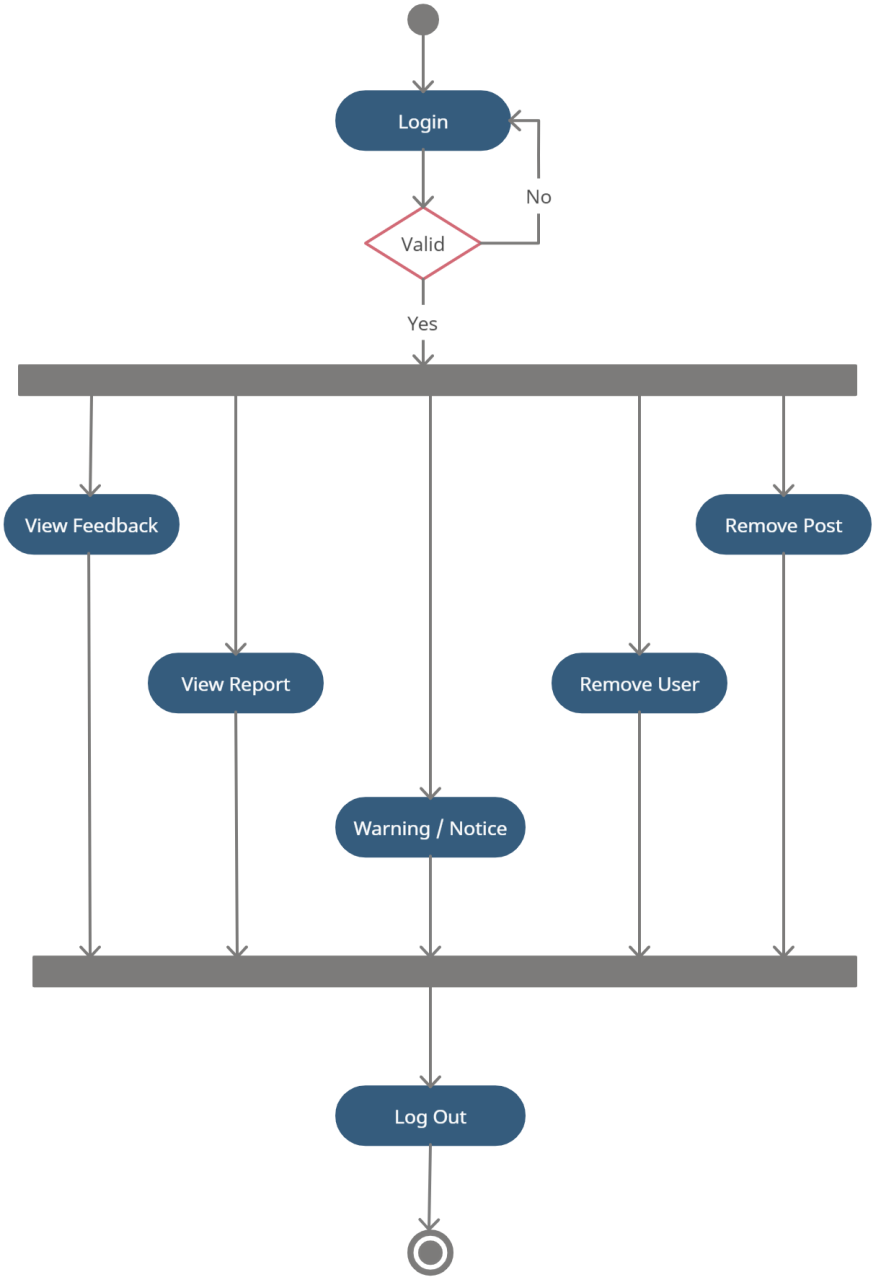
Communications Interfaces:

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the booking information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.

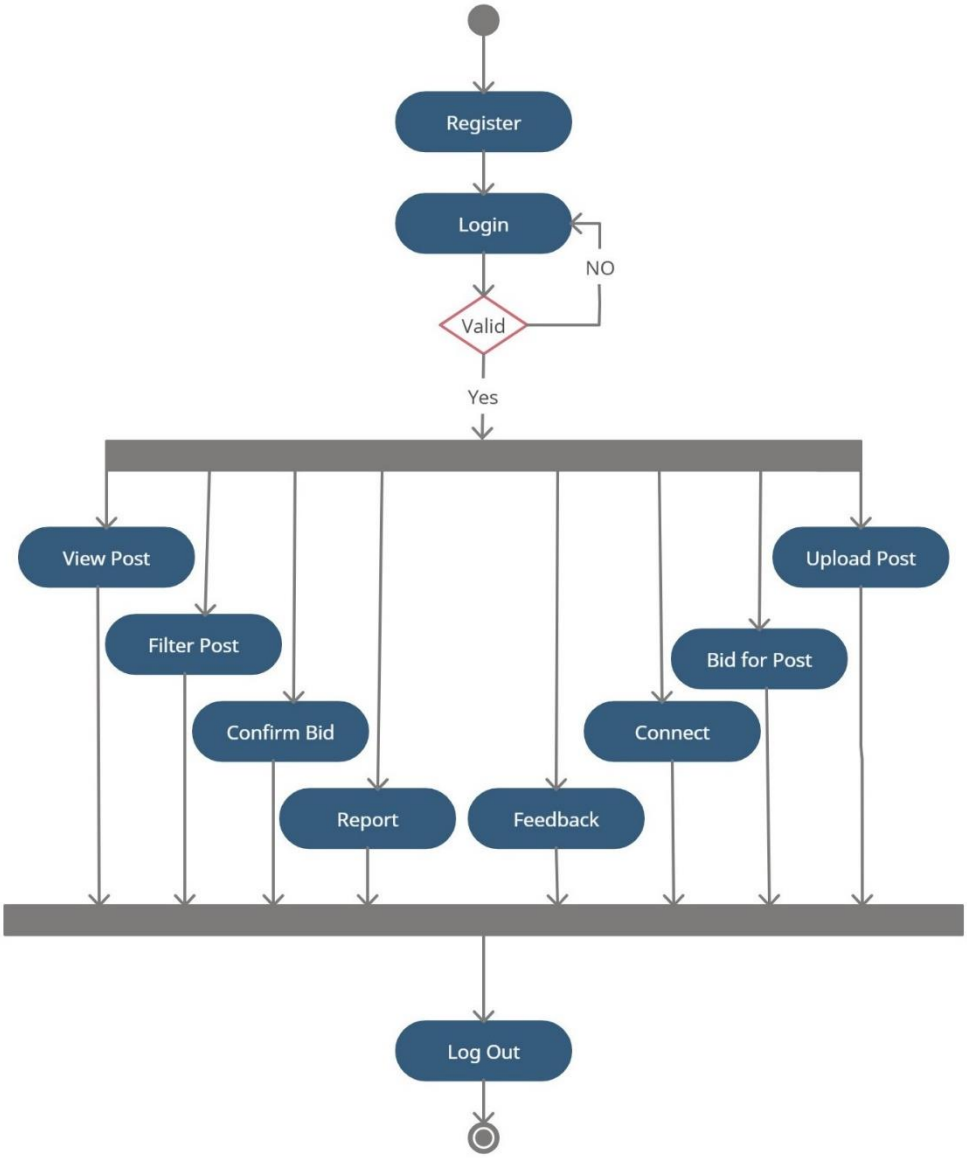
4. System Diagrams.

- **Activity Diagram:**

Admin Activity:

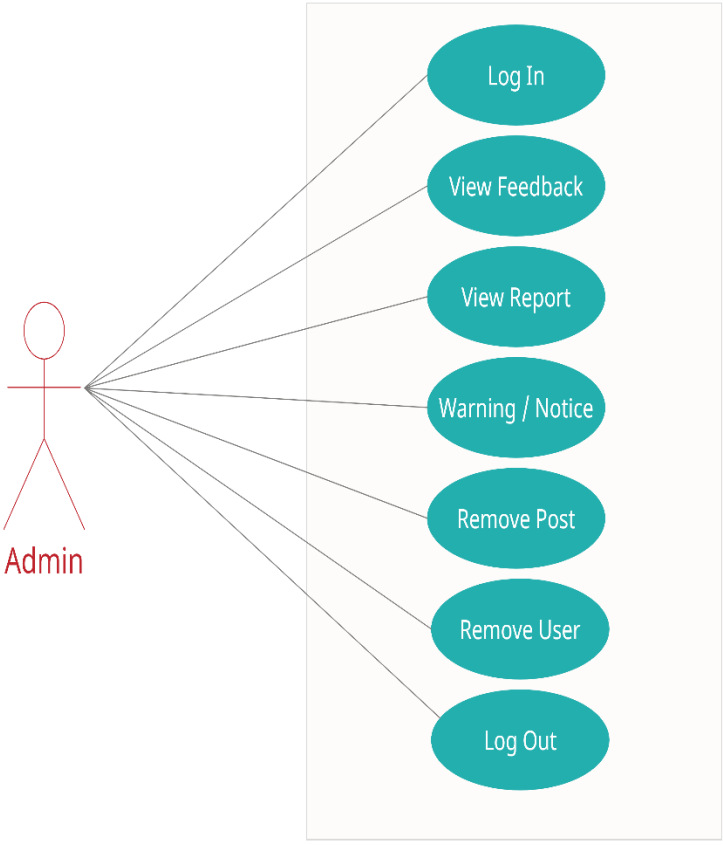


User Activity:

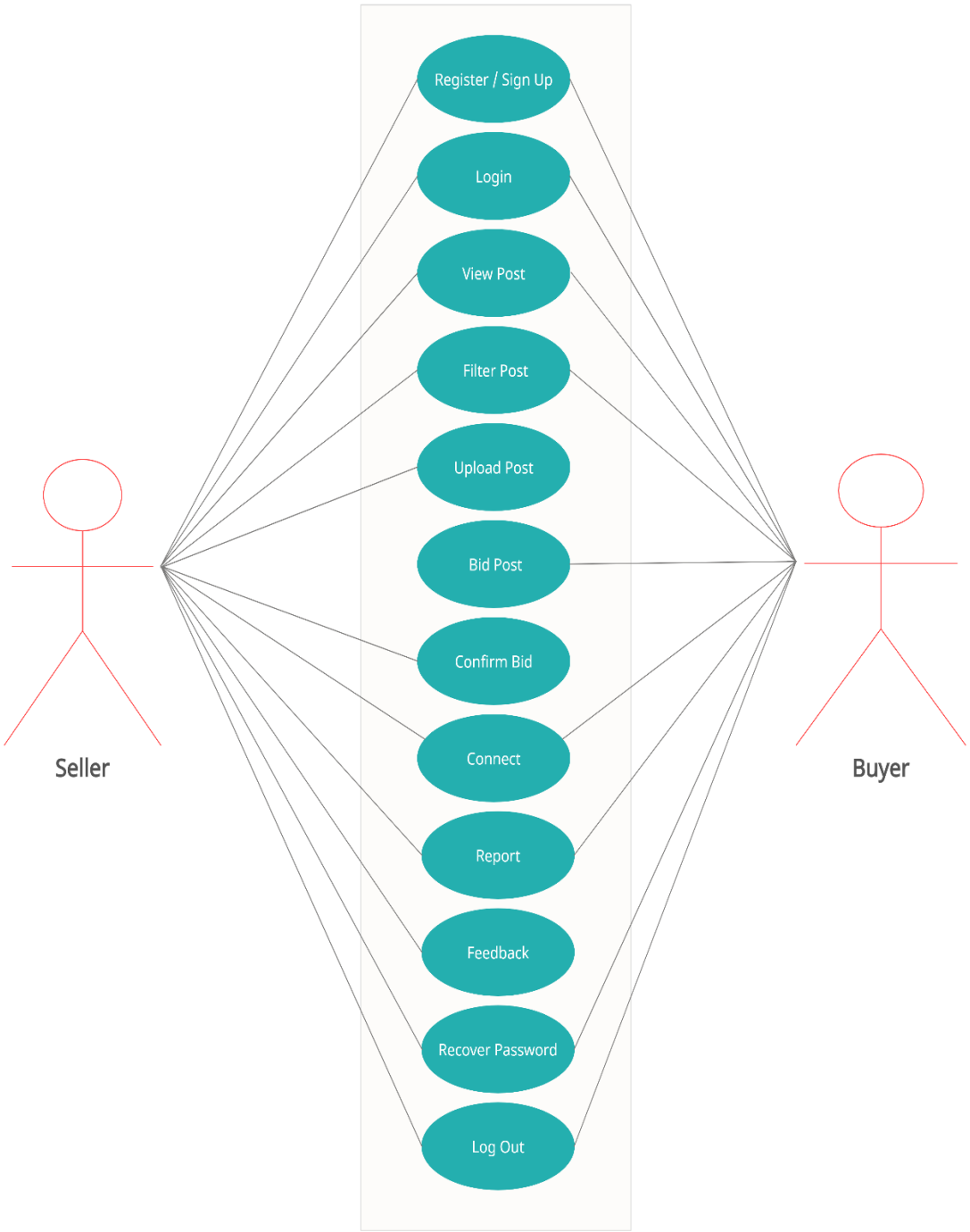


- **Use Case Diagram:**

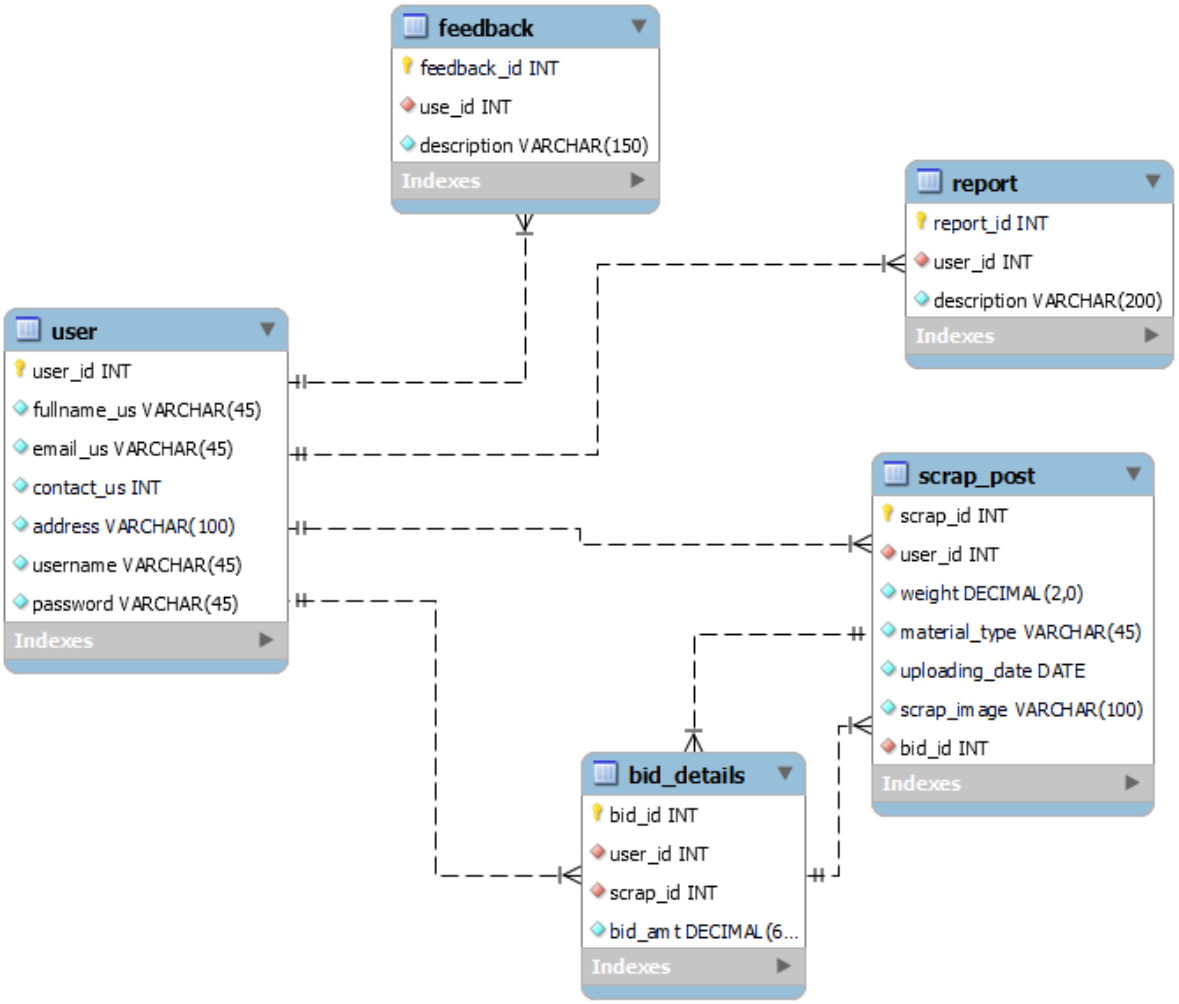
Admin Use-case:



User Use-case:



- **ER Diagram:**


feedback
feedback_id INT
use_id INT
description VARCHAR(150)
Indexes
report
report_id INT
user_id INT
description VARCHAR(200)
Indexes
user
user_id INT
fullname_us VARCHAR(45)
email_us VARCHAR(45)
contact_us INT
address VARCHAR(100)
username VARCHAR(45)
password VARCHAR(45)
Indexes
scrap_post
scrap_id INT
user_id INT
weight DECIMAL(2,0)
material_type VARCHAR(45)
uploading_date DATE
scrap_image VARCHAR(100)
bid_id INT
Indexes
bid_details
bid_id INT
user_id INT
scrap_id INT
bid_amt DECIMAL(6...
Indexes

5. Table Structure.

- User

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store User id
2	fullname	varchar(45)	Null	It is store User Full name
3	email	varchar(45)	Null	It is store email address of User
4	username	varchar(40)	Null	It is store Username
5	password	varchar(40)	Null	It is store Password
6	contactNo	varchar (10)	Null	It is store Contact no
7	address	varchar(45)	Null	It is store Address

- Scrap Post

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store scrap id
2	city	varchar(45)	Null	It is store city of User
3	weight	varchar(45)	Null	It is store Weight of Scrap
4	material_type	varchar(40)	Null	It is store Description
5	scrap_image	varchar(40)	Null	It is store Images of Scrap
6	uploadin_date	CurDate()	Null	It is store Date of Upload

- Bid Details

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	bidAmt	Decimal(10,2)	Null	It is store Bidding Amount

- Feedback

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	description	varchar(100)	Null	It is store Description of Scrap

- Report

Sr. No	Field Name	Data type(Size)	Constraints	Description
1	id *(Primary)*	int(11)	Primary Key	It is store id
2	description	varchar(100)	Null	It is store Description of Scrap

6. CONCLUSION

- **Conclusion:**

  This project aid in automating the existing manual system. This is a paperless work. It can be monitored and guarded remotely. It cut down the man power required and provides accurate information. All years together huddled information can be saved and can be accessed at any time. For this reason, the data stored in the repository helps in taking decision by management. So, it is improved to have a Web Based system. All the stakeholders, faculty and authority can get the required information without delay. This system is crucial in the colleges and universities.

- **Future Scope:**

  In future this system can also be added with additional feature like Online Payment Gateway, Online Transportation Booking and 360º view of scrap.

7. REFERENCES.

- **References:**

  - http://www.ijcstjournal.org/volume-7/issue-1/IJCST-V7I1P4.pdf
  - https://bootstrapmade.com/mentor-free-education-bootstrap-theme/
  - https://www.javatpoint.com/java-mail-api-tutorial
  - https://javaee.github.io/javaee-spec/javadocs/
  - https://www.w3schools.com/