

Ahsanullah University of Science & Technology

Department of Computer Science and Engineering



Prototype Design for “Power Up Gym”

Course Number & Name: CSE 3224 - Information & System Design Lab

Prepared for:

Dr. Taslim Taher (Assistant Professor)
Md. Nafis Fuad (Lecturer)

Prepared by:

Lab Section: A2

Group No: 3

Aurprita Mahmood	20200104035
Meherin Sultana	20200104036
Yasir Arafah Prince	20200104042
Sumaiya Shejin	20200104043
Farhan Abid Ahmed	190104084

Table of Contents

Project Overview	3
Flexibility and Adaptability	3
Collaboration	3
User-Centric design and personalization	3
Risk management	3
Continuous improvement and maintenance	4
User Stories and Relevant UI Design	5
Owner's Perspective	5
Customer's Perspective	12

Project Overview

As we are making a gym management system, the most suitable process would be the **Agile scrum methodology**. The Agile Scrum model is an iterative and incremental approach to software development that emphasizes flexibility, collaboration, and delivering value to customers. The Agile development process is highly suitable for a gym owner to manage the customers and the services of the gym. Here are the reasons why the Agile model is suitable for our project:

Flexibility and Adaptability

Agile model provides flexibility to accommodate changing requirements in the gym facility. As new packages and equipment emerge, Agile model allows seamless integration and ensures an up-to-date website.

Collaboration

The scrum framework encourages collaboration throughout the project. Through Sprint Reviews, stakeholders can provide feedback on the implemented functionalities, ensuring the system meets their expectations.

User-Centric design and personalization

Agile enables user-centric design and personalization. Close collaboration with users and customers helps understand their requirements, resulting in a tailored system according to their needs.

Risk management

The Agile Scrum model supports effective risk management by promoting early detection. Regular Sprint Review provides opportunities to identify and address risk promptly, ensuring that any issues are resolved on time.

Continuous improvement and maintenance

Agile promotes continuous improvement and maintenance of the system post-launch. By gathering feedback from users, we can easily identify areas for enhancement and implement iterative updates. This iterative approach allows the system to evolve and adapt to changing customer needs and market trends over time.

This model allows for adapting to changing requirements, delivering value incrementally, involving users throughout the development process, incorporating iterative feedback, and managing risks effectively in our project which makes this model highly suitable for our project.

User Stories and Relevant UI Design

Owner's Perspective

As a gym owner, I need to log into the Power Up Gym Management System using my username and password to access essential features and carry out my tasks efficiently.

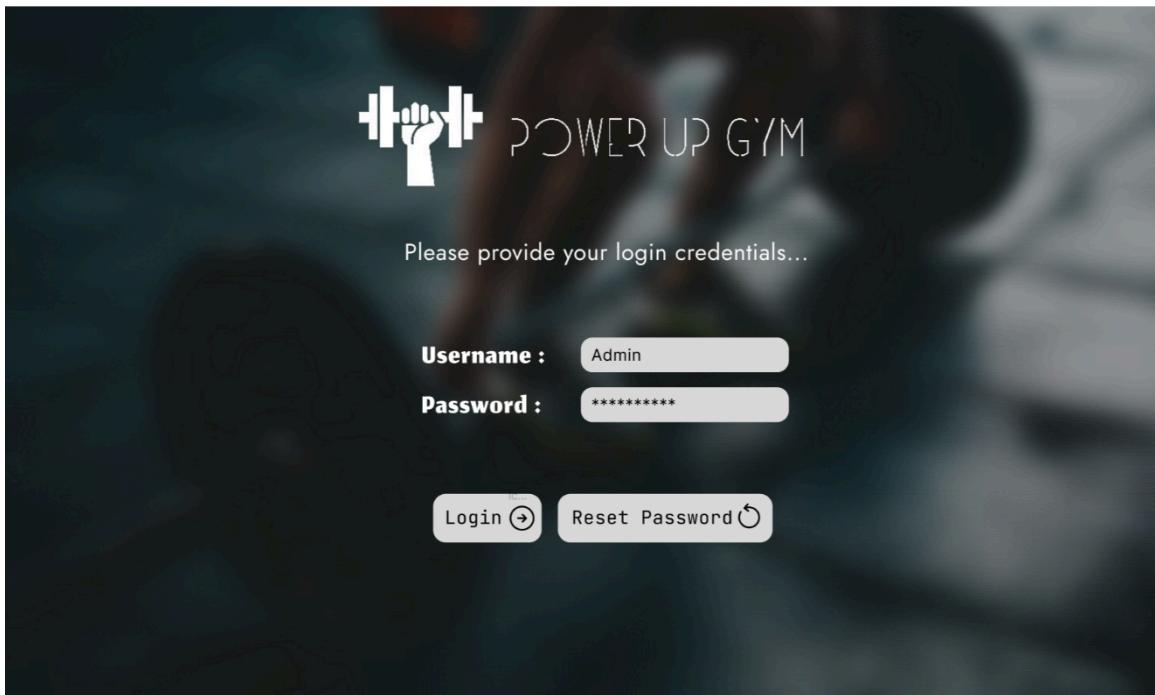


Fig 1: Login UI for admin & employee

Upon logging in, I desire to have full control over customer management, employee management, and package management functionalities within the system. Additionally, I require a comprehensive calculation showcasing the expenses incurred on equipment purchases and utilities, as well as an overview of the incoming revenue generated by the gym. This information is crucial for me as an owner to accurately determine and assess the overall profitability of the business.

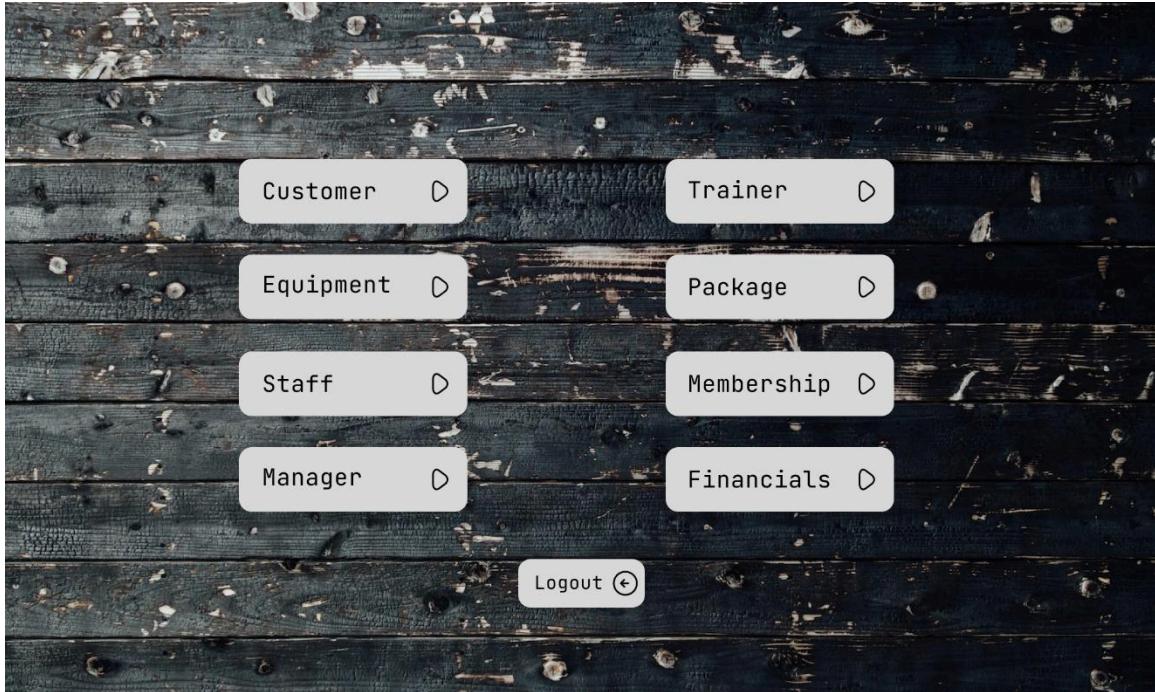


Fig 2: Dashboard

Add New Customer

Name :	Sultan
Height :	165 cm
Weight :	70 kg
Exercise Type :	Cardio
Joining Date :	13 - 06 - 2023
Package No :	Basic - 002
Manager ID :	02
Trainer ID :	011
Paid amount :	3500/-

On the right side of the form, there are three circular icons with symbols: a plus sign (+), a minus sign (-), and a left arrow (←).

Fig 3: Customer enrollment UI

Edit Customer Info

Customer ID :	00157801
Name :	Yasir
Weight :	75 kg
Exercise Type :	Cardio
Trainer ID :	011

(Icon...)

✓

✗

-

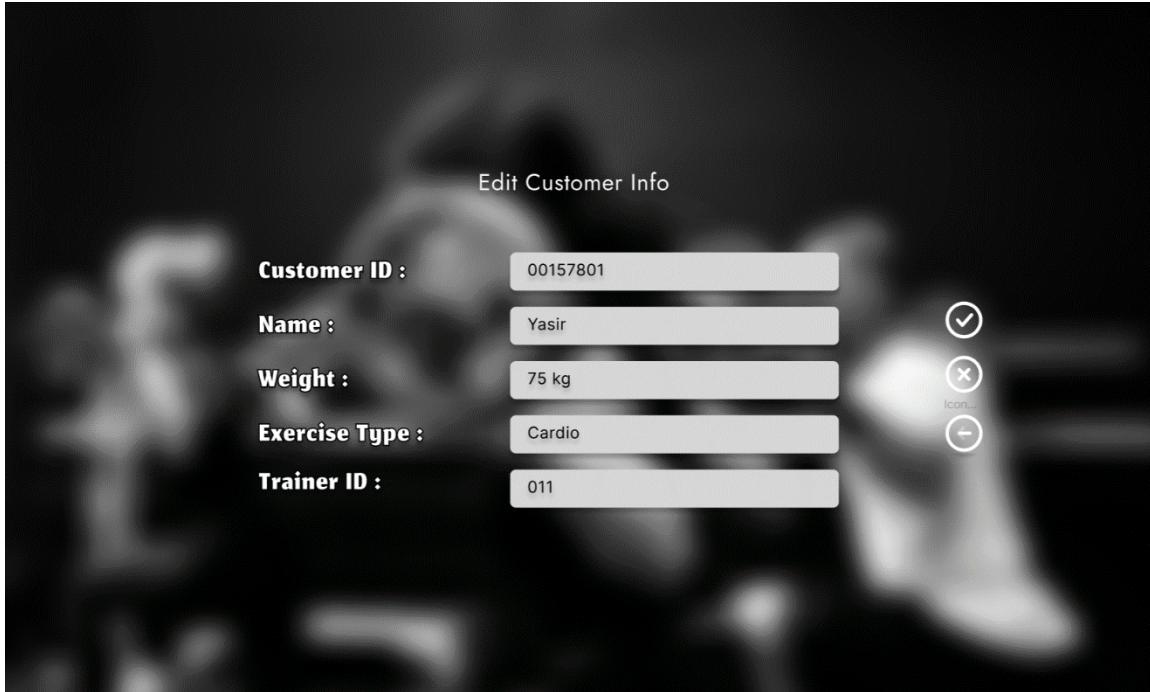
A screenshot of a mobile application interface titled "Edit Customer Info". It displays five input fields for customer information: Customer ID (00157801), Name (Yasir), Weight (75 kg), Exercise Type (Cardio), and Trainer ID (011). To the right of each input field is a small circular icon containing a checkmark, an X, or a minus sign, likely for validation or deletion.

Fig 4: Customer info revision UI

Edit Staff Info

Staff ID :	16
Name :	Hasibul
Salary :	15000/-
Leave Date :	Null
Work Post :	Logistics
Daily Work Hour :	8am to 5pm
Manager ID :	03

(Icon...)

✓

✗

↶

A screenshot of a mobile application interface titled "Edit Staff Info". It displays seven input fields for staff information: Staff ID (16), Name (Hasibul), Salary (15000/-), Leave Date (Null), Work Post (Logistics), Daily Work Hour (8am to 5pm), and Manager ID (03). To the right of each input field is a small circular icon containing a checkmark, an X, or a left arrow, likely for validation or navigation.

Fig 5: Staff info revision UI

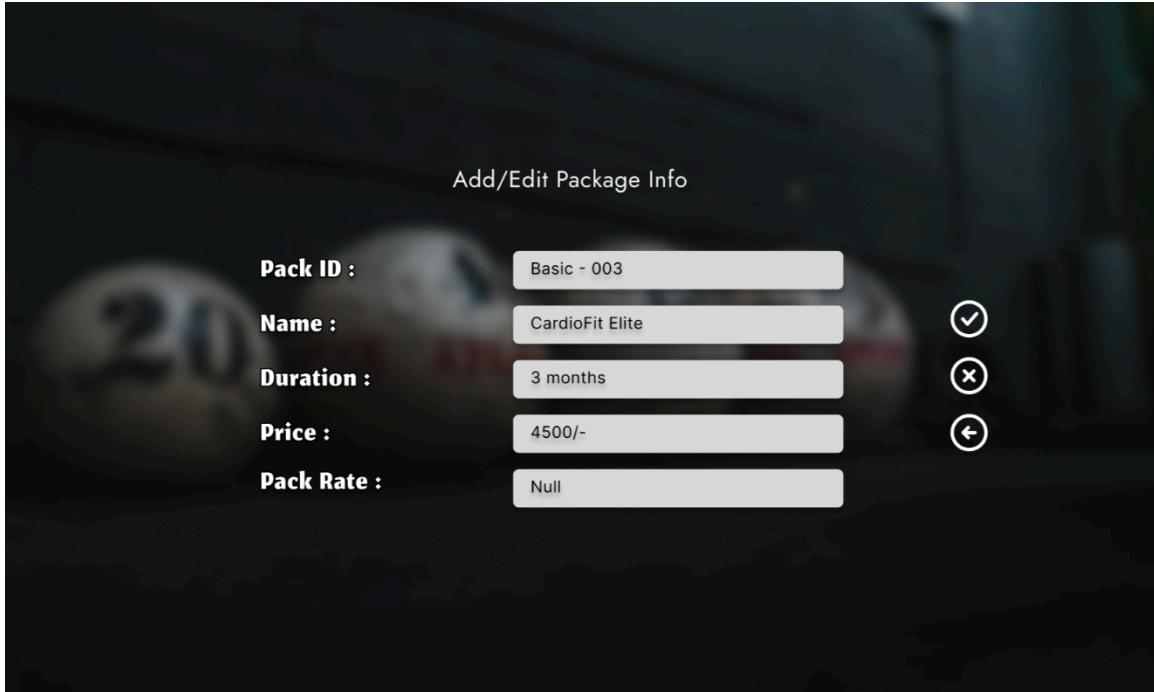


Fig 6: Create/modify package info UI

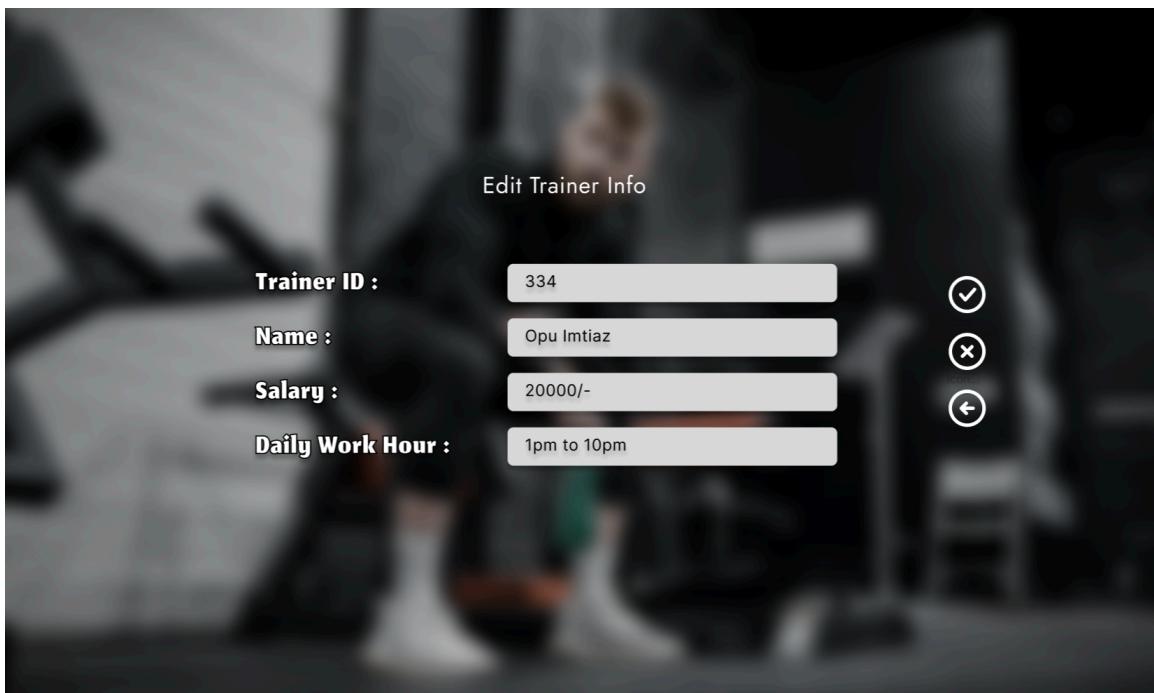


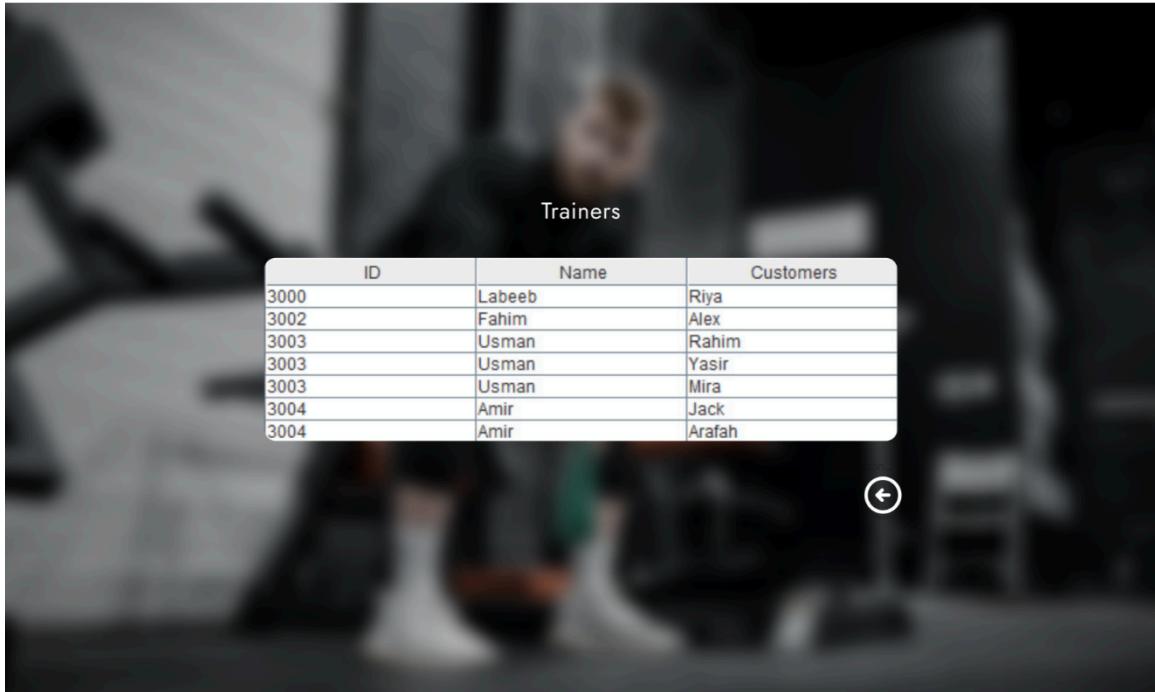
Fig 7: Add/modify trainer info UI

Customer Info														
Name	Id	Join	Height	Weight	Amount	Excercise	Manager	Trainer	MemberID	Expires	Pack	Pack_Dur...	Pack_Price	Pack_rati...
Rahim	1000	2019-12-...	1.69m	59kg	34000.00	Abs	Saad	Usman	1000	2024-12-...	Premium	1 year	30000.00	5 star
Jack	1001	2021-02-...	1.732m	60kg	24000.00	Back	Saad	Amir	1001	2024-02-...	Elite	6 months	20000.00	2 star
Alex	1002	2022-03-...	1.701m	66kg	22000.00	Arms	Aasim	Fahim	1002	2025-03-...	Basic	3 months	18000.00	3 star
Arafah	1003	2020-04-...	1.794m	71kg	24000.00	Chest	Zain	Amir	1003	2024-04-...	Elite	6 months	20000.00	2 star
Yasir	1004	2022-05-...	1.733m	73kg	22000.00	Abs	Aasim	Usman	1004	2025-05-...	Basic	3 months	18000.00	3 star
Riya	1005	2019-09-...	1.68m	63kg	16000.00	Chest	Aasim	Labeeb	1005	2023-09-...	Silver	1 month	12000.00	3 star
Mira	1006	2021-01-...	1.701m	65kg	17000.00	Arms	Zain	Usman	1006	2024-01-...	Bronze	15 days	13000.00	4 star

Fig 8: Customer information UI

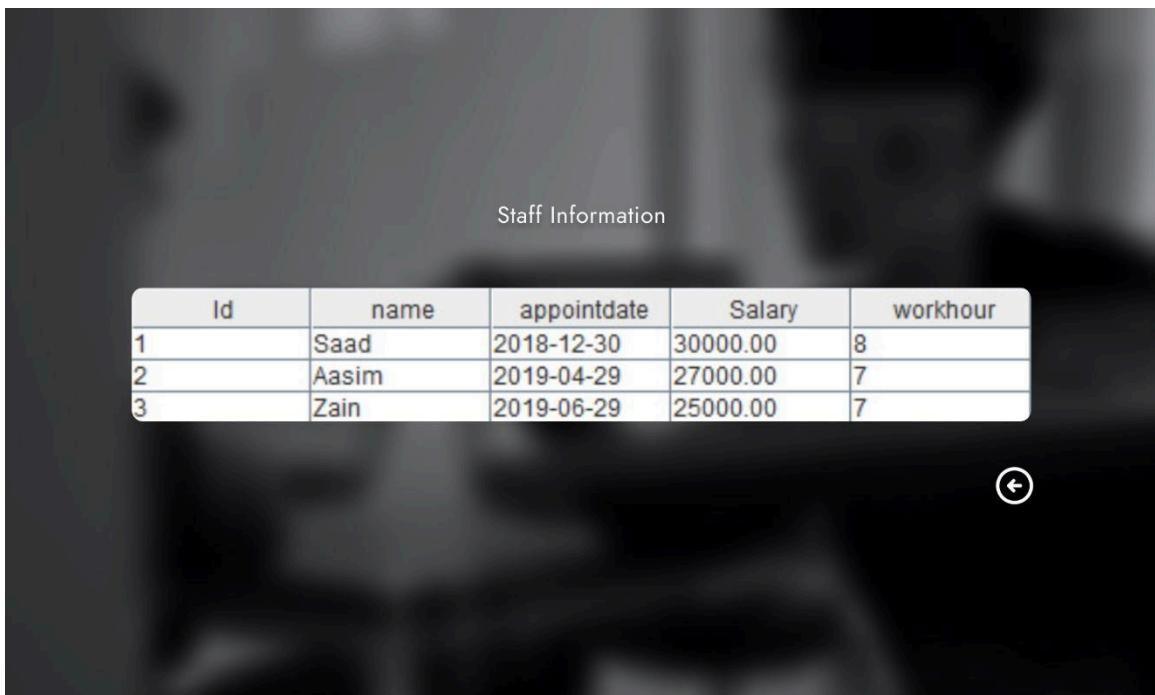
Packages & Rating				
id	name	duration	price	rating
1	Gold	3 months	25000.00	5 star
2	Premium	1 year	30000.00	5 star
3	Elite	6 months	20000.00	2 star
4	Basic	3 months	18000.00	3 star
5	Silver	1 month	12000.00	3 star
6	Bronze	15 days	13000.00	4 star

Fig 9: Package information UI



Trainers		
ID	Name	Customers
3000	Labeeb	Riya
3002	Fahim	Alex
3003	Usman	Rahim
3003	Usman	Yasir
3003	Usman	Mira
3004	Amir	Jack
3004	Amir	Arafah

Fig 10: Trainer information UI



Staff Information				
Id	name	appointdate	Salary	workhour
1	Saad	2018-12-30	30000.00	8
2	Aasim	2019-04-29	27000.00	7
3	Zain	2019-06-29	25000.00	7

Fig 11: Staff information UI



The image shows a blurred background of a person working out in a gym. In the foreground, there is a white rectangular table with a dark border containing financial data. The table has columns for name, buydate, maintainance, payid, and cost. The title "Financials" is centered above the table. A small circular icon with a right-pointing arrow is located in the bottom right corner of the table area.

name	buydate	maintainance	payid	cost
Power rack	2018-12-30	6 months	23414	40000.00
Chest press ...	2018-12-30	4 months	23451	18000.00
Lat pulldown ...	2019-12-30	2 months	26432	34000.00
Roman chair	2019-02-27	3 months	47839	39000.00
Hammer stre...	2018-12-30	3 months	74199	27000.00
Adjustable we...	2018-12-30	3 months	74212	16000.00

Fig 12: Financial information UI

Customer's Perspective

As a customer of Power Up Gym, I will have access to various packages offered, along with their ratings. Additionally, I can view information about the trainers available at the gym, including their ratings. Furthermore, I will be able to explore the gym's equipment inventory.

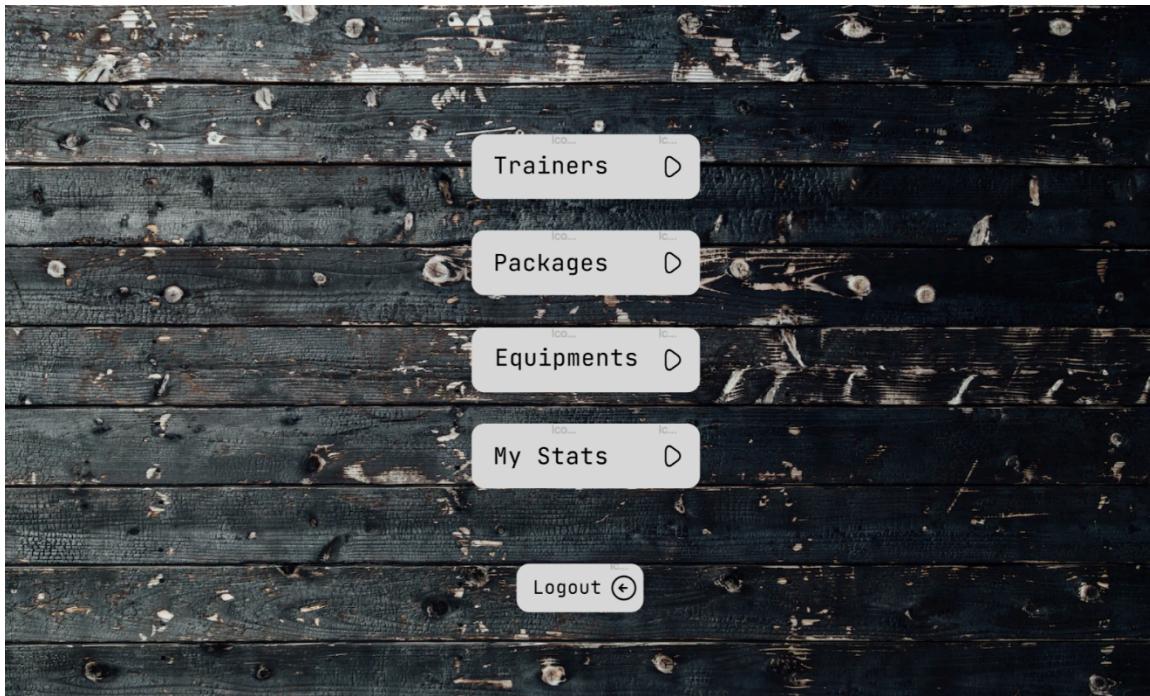
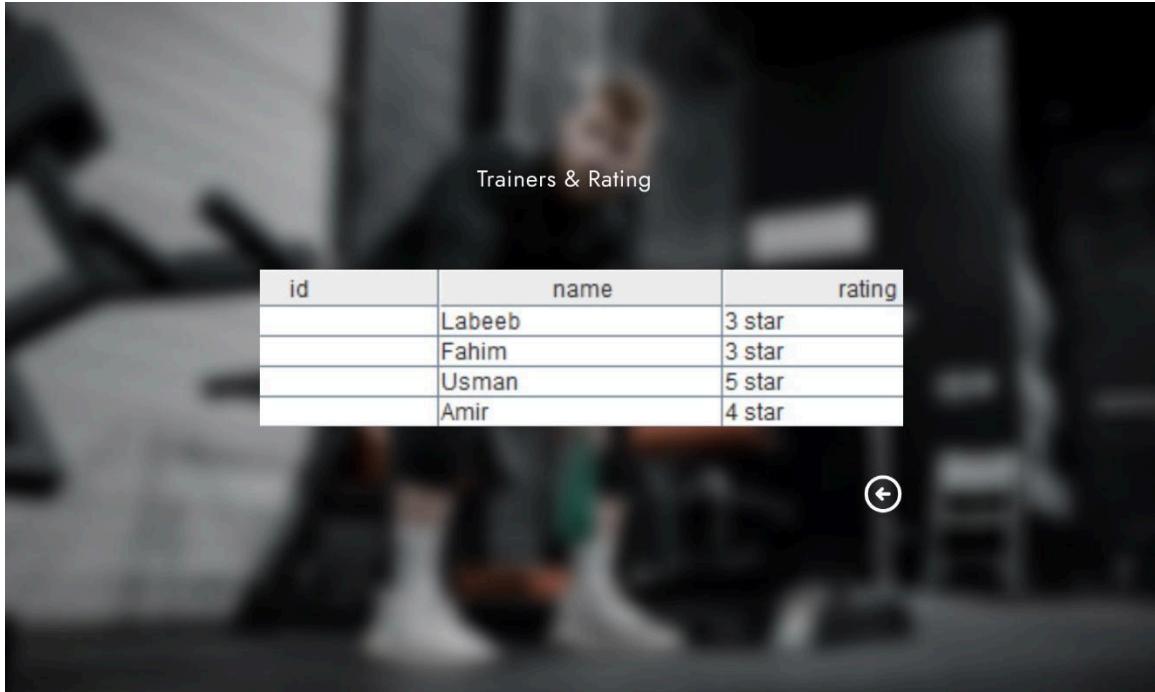


Fig 13: User dashboard UI

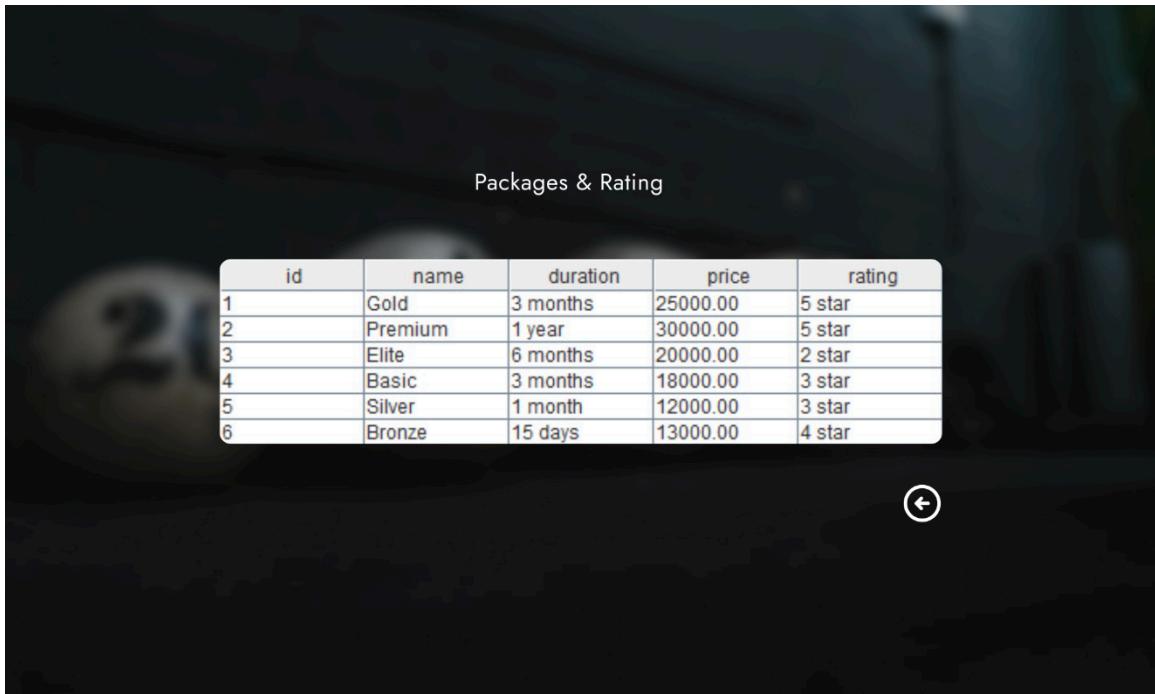


Trainers & Rating

id	name	rating
	Labeeb	3 star
	Fahim	3 star
	Usman	5 star
	Amir	4 star

↻

Fig 14: Trainer & rating UI



Packages & Rating

id	name	duration	price	rating
1	Gold	3 months	25000.00	5 star
2	Premium	1 year	30000.00	5 star
3	Elite	6 months	20000.00	2 star
4	Basic	3 months	18000.00	3 star
5	Silver	1 month	12000.00	3 star
6	Bronze	15 days	13000.00	4 star

↻

Fig 15: Package & rating UI

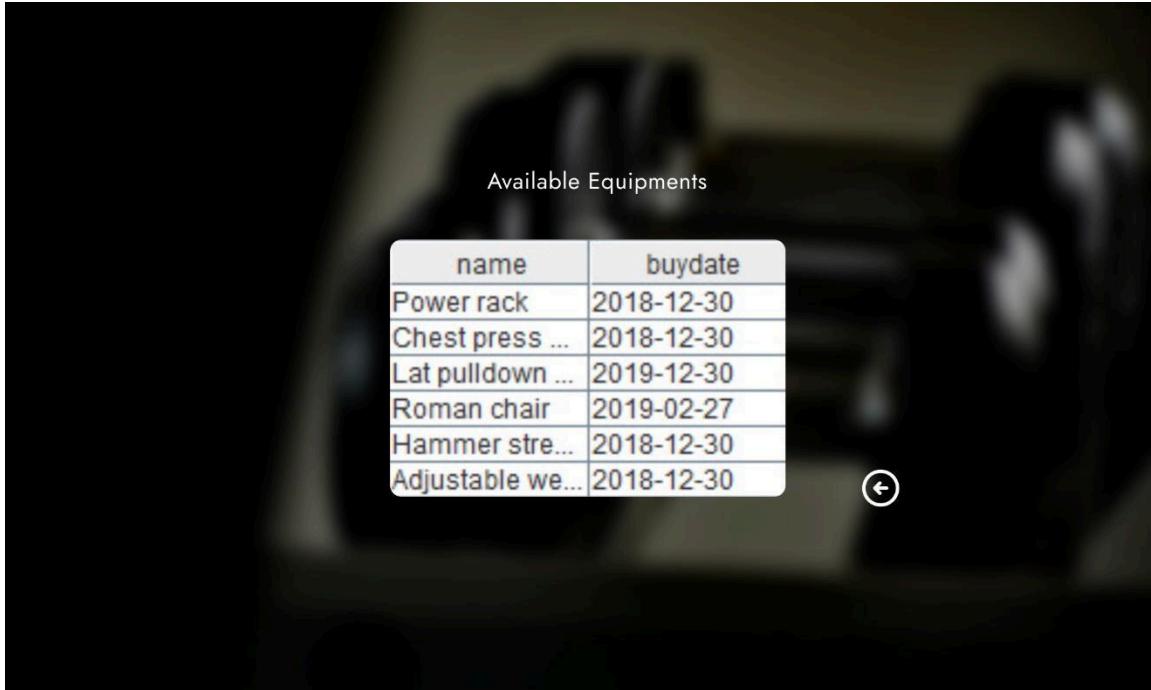


Fig 16: Available equipment UI

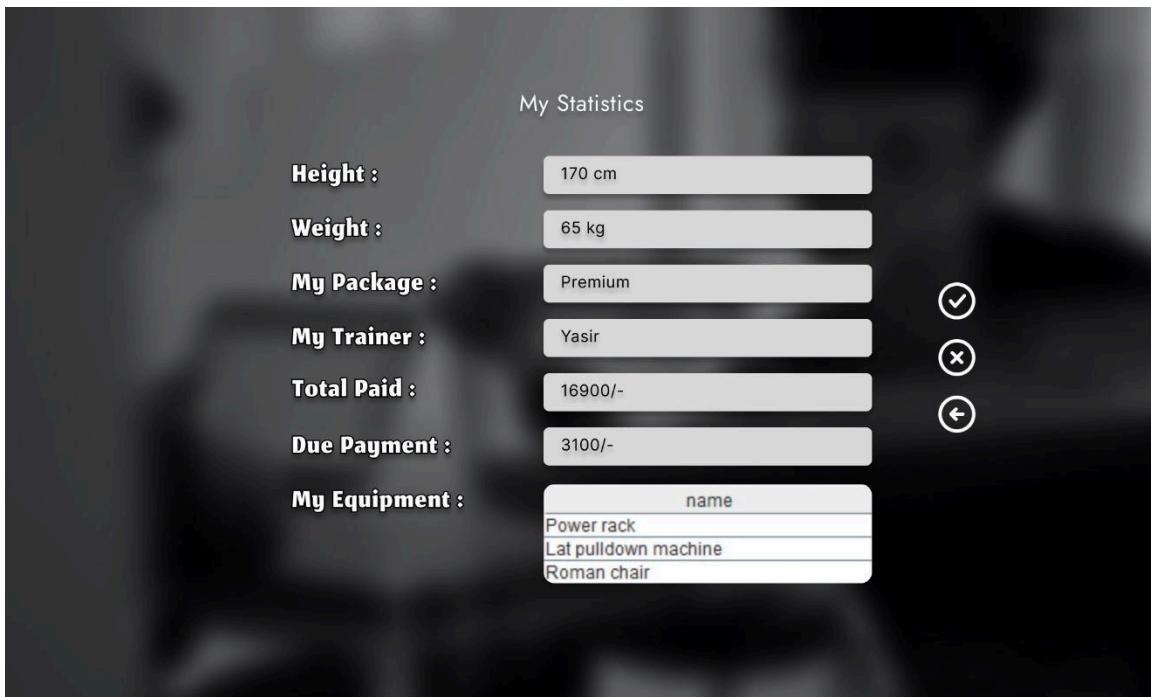


Fig 17: User statistics UI