1.1

American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science &Technology (FST)

Fall 22_23

Section: D

Group No: 5

TRIMMER

A software Engineering project submitted
By

S/N	Student Name	Student ID	Contribution (%)	Individual Marks
15	SABID, ARIFIN	19-41513-3		
36	RABBI, MEHEDI HASAN	20-44059-2		
37	DAS, PROSIT KUMAR	20-44063-2		
38	NIROB, NAFIS FUAD	20-44082-2		

The project will be Evaluated for the following Course Outcomes

Your Project will be Evaluated based on the following marking criteria		Total Marks
Identify and Analyze Requirements (functional, quality, and project req.)	[5Marks]	
Design the System Interface (UI/UX design)	[5Marks]	
Prepare Test cases and Test plan	[5Marks]	
Prepare WBS and Project Schedule	[5Marks]	
Identify potential risks and Prepare a risk management plan	[5Marks]	
Submission, Completeness, Spelling, Grammar, and Organization	[5Marks]	

PRODUCT AND PROJECT DESCRIPTION

System Features

1. **User Profile**
   Functional Requirements

1.1 After login into the user id can update his /her name, age, gender, and location.
1.2 User can set Phone number or email in case some kind of network issue.
1.3 System will verify if the Phone number or Email is correct or not and send a message if invalid Phone number or Email.
Priority level: Medium
Precondition: User must register with Phone Number or Email.
Cross-reference: N/A

2. **Search Barber:**
   Functional Requirements

2.1 This System will automatically provide user nearby barber shop.
2.2 This system will allow customer to choose different kind of barber.
Priority level: High.
Precondition: User need to be a registered member first.
Cross-reference: N/A

3. **Booking Barber**
   Functional Requirements

3.1 User can select their preferable time and barber shop.
3.2 When user not select specific barber system will automatically choose any barber on selected shop.
3.3 System will send a massage to both customer and barber for confirmed the service.
Priority level: High
Precondition: Customer need to be registered with the service location and valid phone number
Cross-reference: 2

4. **Barber Schedule:**
   Functional Requirements

4.1 Barber can set their time schedule.
4.2 System automatically update barber time schedule by selected time.
4.3 Barber can set offers
4.4 System will send a massage to customer for offers.
Priority level: High
Precondition: Barber need to be registered with the service location and valid phone number
Cross-reference: N/A

5. **Cancel Request:**

Functional Requirements

5.1 User can cancel his booking at any time then system will automatically update barber time schedule.

5.2 If customer did not go to barber shop on time and did not cancel his booking, then system will automatically cancel the booking and make a red mark on that user.

Priority level: High
Precondition: User need to be booked a barber
Cross-reference: N/A

1.1 System Quality Attributes

There are two types of perspective of quality attributes.
Here we give some important primarily quality attributes to user perspective.

QA 1. Availability: The system shall be at least 98.5 percent available on every seven days a week between 8.00 am to 8.00 pm at local time.

Priority level: High
Precondition: Must have maintainability attribute
Cross-reference: N/A

QA 2. Efficiency: There are at least (2) percent of the processor capacity, disk space 1.7 MB/S, memory 88 MB and communication bandwidth 1024kbps shall be available to properly run this system.

Priority level: High
Precondition: N/A
Cross-reference: N/A

QA 3. Flexibility: A maintenance programmer who will be able to add new feature and function including code, modifications and testing into the system with no more than two hours.

Priority level: Medium
Precondition: N/A
Cross-reference: N/A

QA 4. Integrity: When user try to login into the system, then they have to two step verification. One step is when user try to login into the system, the system will send a verification code to the user via mail and user get a verification code to login and the second step is user need to use own password when they create the password to sign up this system.

Priority level: High
Precondition: N/A
Cross-reference: QA-2

QA 5. Reliability: The system shall no more than three experimental runs out of 700 can be lost.

Priority level: High
Precondition: N/A
Cross-reference: QA-1, QA-2, QA-3

There are some important primary quality attributes to developer perspective:

I) **Maintainability**: Suppose there is a problem arise in the system that user cannot booked a barber. A maintenance programmer who has experience can solve this problem within 2 hours without any extra helping hand.

Priority level: High
Precondition: N/A
Cross-reference: QA-3

ii) **Portability**: The system was able to run any platform or any operating system. Like Windows, Android, Apple.

Priority level: High
Precondition: N/A
Cross-reference: QA-2.

iii) **Reusability**: The system functions app is free for everyone.

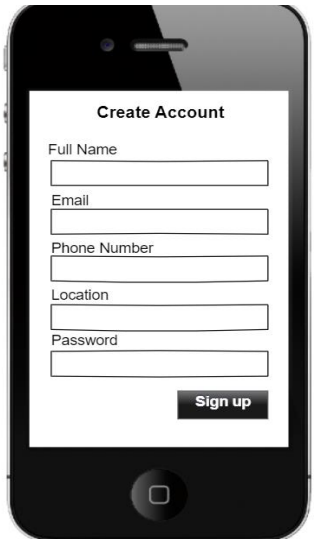
Priority level: Low
Precondition: N/A
Cross-reference: QA-1, QA-2, QA-3.

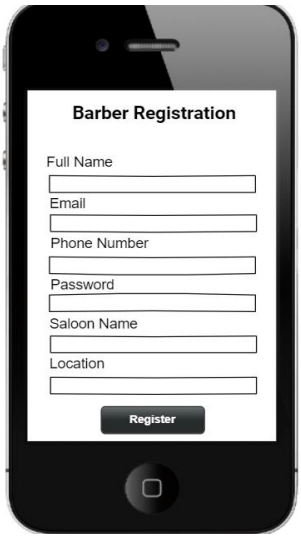
1.2 Project Requirements

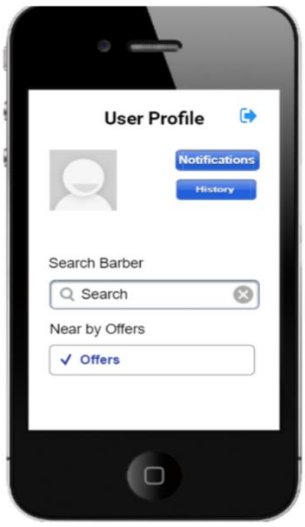
1) **Time**: We need Four month (15 weeks) to build this software.
2) **Environment**: We do not have any budget so we are working on own work place
3) **Resources**: We are total 4 human resources to build this software.
4) **Equipment**: To build this software we need equipment. Like, 4 Computer
5) **Bandwidth**: We need high bandwidth support. Which is around 50 to 80 Mbps.
6) **Tools**: The system developer needs selenium tools in perform testing activities in week.

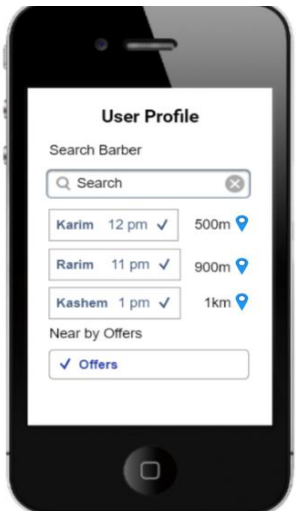
2. SYSTEM DESIGN SPECIFICATION

2.1 UI/UX Design









1. SYSTEM TEST PLAN

Table: Test Case for **User Profile**

Project Name: Trimmer			Test Designed by: Prosit Kumar Das	
Test Case ID: TMR_1			Test Designed date: 27-11-2022	
Test Priority (Low, Medium, High): High			Test Executed by:	
Module Name: Create account			Test Execution date:	
Test Title: Registration method				
Description: Test user valid registration profile				
Precondition (If any): Valid Phone number or Gmail				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the app 2. Click "signup or join as barber" button 3. Fill the details 4. Click "Signup" button	Email: Prosit.kd@gmail.com Phone Number :01777025958 Database: Save data successfully.	User should be able to register into Trimmer app		
Post Condition: The phone number and location will be updated anytime in the database when user select his current location or changes his contact number.				

Table: Test Case for **Booking Barber**

Project Name: Trimmer			Test Designed by: Arfin Sabid	
Test Case ID: TMR_2			Test Designed date: 5-12-2022	
Test Priority (Low, Medium, High): Medium			Test Executed by:	
Module Name: Booking Barber			Test Execution date:	
Test Title: Getting barber and offers list.				
Description: Test to see the barber list and booked the barber.				
Precondition (If any): Customer need to login into app with valid ID.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the User profile 2. Click "Search barber" or "Nearby offers". 3. Select Saloon and barber from list. 4.Click "Sent Request" button	Offers: 20% discount for today Saloon: MegaHair-Khilkhet-2.00pm	User should be able see the slot and booked the barber.		
Post Condition: The schedule will be updated continuously when a customer booked a barber.				

Table: Test Case for **Confirm Request**

Project Name: Trimmer			Test Designed by: Mehedi Hasan	
Test Case ID: TMR_3			Test Designed date: 03-12-2022	
Test Priority (Low, Medium, High): Medium			Test Executed by:	
Module Name: Conformation Request			Test Execution date :	
Test Title: To confirm user schedule request.				
Description: Test Conformation or rejection the customer.				
Precondition (If any): User need to be a sent request first.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the Barber Profile 2. Click "View request" button 3.Select the user from list 4. Click "Confirm request or cancel request" button	Nafis89 request for 2.00pm slot Request: Confirmed or Rejected.	Barber should be able to see the request and can confirm or reject.		
Post Condition: After conforming the request user get a notification from barber and update barber schedule automatically.				

Table: Test Case for **Barber Update**

Project Name: Trimmer			Test Designed by: Nafis Fuad Nirob	
Test Case ID: TMR_4			Test Designed date: 07-12-2022	
Test Priority (Low, Medium, High): Medium			Test Executed by:	
Module Name: Barber Update			Test Execution date:	
Test Title: Check schedule				
Description: Test barber profile updated schedule and offers.				
Precondition (If any): Have to login as Barber first.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the Barber Profile 2. Click "Add offers" button 3. Add latest offers to	Offer: 20% discount for Today Schedule: 11.00 Am 2.00 Pm	User should be see the offer and schedule.		

selected schedule. 4. Click "Sent Offer" button				
Post Condition: After set the offers, the offer will automatically update to the customer.				

2. PROJECT MANAGEMENT PLAN

2.1 Project Scheduling

Week / Test	W -1	W -2	W -3	W -4	W -5	W -6	W -7	W -8	W -9	W-10	W-11	W-12	W-13	W-14	W-15
A.Nafis	■	■													
B.Nafis		■													
C.Prosit			■												
D.Rabbi				■											
E.Sabid				■	■										
F.Prosit						■									
G.All			■	■		■									
H. Sabid							■								
I.ALL							■	■							
J.Prosit									■	■					
K. Rabbi										■					
L. Nafis											■				
M.All											■				
N. All						■						■			
O. All											■	■	■		
P. All													■		
Q. Sabid														■	
R. All															■
S. All														■	
T. All															■
U. All															
V. All				■	■	■									
W. All									■						
X. All								■							
Y. All								■							

Activity Key:

A. Overall design
B. Overall design
C. Overall design
D. Overall design
E. Overall design
F. Overall design
G. Overall design
H. Special module 1
I. Special module 2
J. Special module 3
K. Special module 4
L. Special module 5
M. Special module 6
N. Code module 1
O. Code module 2
P. Code module 3
Q. Code module 4
R. Integration system
S. Integration system
T. Integration system
U. Integration system
V. System testing
W. System testing
X. System testing
System testing

2.2 Risk Analysis

S/N	Risk Description	Probability	Impact	Mitigation Plan
1	Task allocation problem	20%	Poor code writing and functionality	Make a skill-set chart of the group members and assign tasks according to expertise
2	Maintainability problem	50%	Poor user experience	We will make a recovery test on our entire project
3	Excessive Cost	35%	Project will be more costly	A good pre-estimation and make a good track on budget
4	Customer information Security	25%	Customer will lose trust in this app	Make a reliable security system.