



American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science & Technology (FST)

Summer 19_20

Section: A

Online Work Service Provider

A software Engineering project submitted
By

SN	Student Name	Student ID
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PROJECT PROPOSAL

Project Name: ONLINE WORK SERVICE PROVIDER (OWSP)

Group member:

1. MD SOUMIK HASAN

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Introduction:

Online work service provider (OWSP) is an online work Service provider which is offering services that include peer to peer work servicing, skilled workers. Our service uses a dynamic pricing models .It's platform can be accessed via our websites and mobile apps .This app will help the citizens to find out the skilled workers according to their demands. Normally if the workers are unknown to the citizens, they can't be trusted. These unknown workers can be unskilled, inexperience. But to be part of our service , the workers must meet requirements for their age , health , type and must have a smartphone also must pass a background check. Here workers use an app to receive —and accept offers for servicing and further information. Our online worker's service are safe and trustworthy. People can use this app as they needed.

Problems :

- In our daily life we faces different types of worker problem, most of the time we have to search worker manually, sometimes workers are not available on that moment.
- Somehow if one finds a labor worker, he/she can't be sure if the worker is good or bad.
- Most of the time, workers charge more money.
- Most of the time, when we go to find for a worker, it's quite tough to find them if we don't have someone known.

Overview of the system:

In this system there are only two types of user, first one is the person who will search for the work which he/she wanted and the other one are those people who will give the work. For

example if the worker achieve some new ability of him then he could add those to his profile. By doing this it will be more easy for those person who want the worker to hire.

Objectives:

As there are very small number of people are using software to maintain their jobs there is a massive scope in our country for the system. I think if we target small business to connect with this system, we can get a large number of users. In that case we can develop this system as we can host it with a small database a storage system. So mainly our target is to connect with small workers. By doing this we could make a large number of users.

Importance of this service :

Now in this pandemic situation many people losing their jobs and many people couldn't manage 2 times of food for their family. Also there are many students in our country who don't get any per time job or any tuition. But with the help of our software we could give them jobs. Also there are many people who have skills but for lacking of platform they couldn't show their skills.

In respect to time, online jobs offer huge flexibility. You have the power to schedule your working hours. You will not be tied an office from 9-5 even when you have already done that day's duty. Such gives you a chance to work on other personal obligations as well.

Justifications:

Online work provider is a very important tool to manage jobs. In our country small business peoples are not used to with using software. But technology upgrade in every single day. To sustain in this competitive market they have to be familiar with software like this . If we make the system cloud based it will be more acceptable to the people. They can fulfil their wants . They can manage multiple works form a single platform.

Acceptance of any software depends on the customer satisfaction. For this reason we need to survey in some real time local areas. It will help us to increase more functional and non-

functional requirements. This will make our software more perfect and user friendly. It also will be more convenient to understand both developer and customer which will reduce the development cost.

1. System features:

Functional requirement:

1.1 First of all the software will allow the user to login to the account or registration for account.

1.2 It will also ask the user which language he/she want.

1.3 After successful login the home page will be displayed.

1.4 If he/she have no account then in registration system will ask he/she will be a service provider or service customer.

1.5 If user password is incorrect the home page will appear again for asking login. (Maximum 3 times)

Priority level: High

Precondition: None

Crossover: 5.4, 8.4.

2. Search:

Functional requirement:

2.1 User can search for what service he/she expecting.

2.2 System give user review of their expecting service.

2.3 User can also search for the service provider who are available.

Priority level: Medium

Precondition: N/A

Crossover: 3.1, 6.2.

3. Order place:

Functional requirement:

3.1 Customer can place an order by searching their expecting service.

3.2 Customer can place an order for service and service providers place the charge for the service.

3.3 Customer can get many service provider with charge and get their expecting service.

3.4 Customer can cancel the order within a specific time.

Priority level: High.

Precondition: Have a valid account.

Crossover: 2.1, 5.1.

4.Location:

Functional requirement:

4.1 There will be a location option in system. By using this feature user can locate their workers location.

4.2 User can track customer or service provider location.

4.3 Customer can also use the feature to locate the specific location for the service.

4.4 User can track service provider or customer location, distance.

Priority level: Medium.

Precondition: Turn on location option.

Crossover: 5.2, 8.2, 8.3.

5. Notification:

Functional requirement:

- 5.1 User get a notification when any order place for service with the details of service provider/customer.
- 5.2 When service provider came near the customer location customer will get a notification.
- 5.3 Service provider get a notification when customer confirm/cancel their deal.
- 5.4 User will get a notification when several time unsuccessful login occur.

Priority: Medium.

Precondition: Place an order, Turn on location. Crossover: n/a

2. Review :

Functional requirement:

- 6.1 User can give review from the customer by the basis of their service.
- 6.2 Customer can see the review of service provider in their details option.
- 6.3 User can give a comment in review comment section.

Priority level: High

Precondition: Take a service.

Crossover: 2.2

7. Payment:

Functional requirement:

- 7.1 Customer can pay the service provider by hand to hand, or using any card or mobile banking.
- 7.2 Customer can choose the service provider by their charges.

Priority: High.

Precondition: Take/give a service.

Crossover: 3.3

8. Security:

Functional requirement:

8.1 System will automatically give an OTP or mail to the user when some account login failed several time.

8.2 Location only visible for the specific customer and service provider who are take and give the specific service.

8.3 After finishing the service customer and service provider can't see their location.

8.4 If some user forget their password then they could recover their account with the help of their account number or the Gmail they used for creating the account.

8.5 For recovery the user/customer must go to the recovery option and request for recover the account by doing this there will be a OTB will send to the Gmail or Mobile number after inputting the OTP there will be a change password option.

Priority level: High.

Precondition: Need to create an account.

Crossover: 1.4, 4.2.

Non-Functional requirement:

1. Protection

1.1 The ability to resist unauthorized attempts at usage.

1.2 login requirements, access levels.

1.3 Time, efforts needed to find a key.

1.4 inactivity timeouts-durations , actions.

1.5 Detection mechanisms.

Priority level: Mid.

Precondition: Must have an account.

Crossover : N/A

2. Availability:

- 2.1 Measure ability of the system to run under different computing environments.
- 2.2 Hardware, software, OS, languages, versions, combination of these.

Priority level: High

Precondition: Must have device to run the software.

3. Measurement:

- 3.1 Number of targeted platforms.
- 3.2 Proportion of platform specific components or functionality.
- 3.3 Mean time to port to a different platform.
- 3.4 Firewall, Encryption level

Priority Level: High.

Precondition: N/A

Crossover: 1.1

4. Integrity:

- 4.1 fault trapping.
- 4.2 Bad data trapping-data imports , policies failures.
- 4.3 Data integrity-referential integrity and interfaces.

Priority Level: High.

Precondition: Should have to test it first.

Crossover: N/A

5. Error handling:

- 5.1 Mean time to recover from an error and be able to continue the task.
- 5.2 User satisfaction:
- 5.3 Satisfaction ratio per user class.
- 5.4 Usage ratio.

Priority Level: High.

Precondition: N/A

Crossover: 2.1,2.2

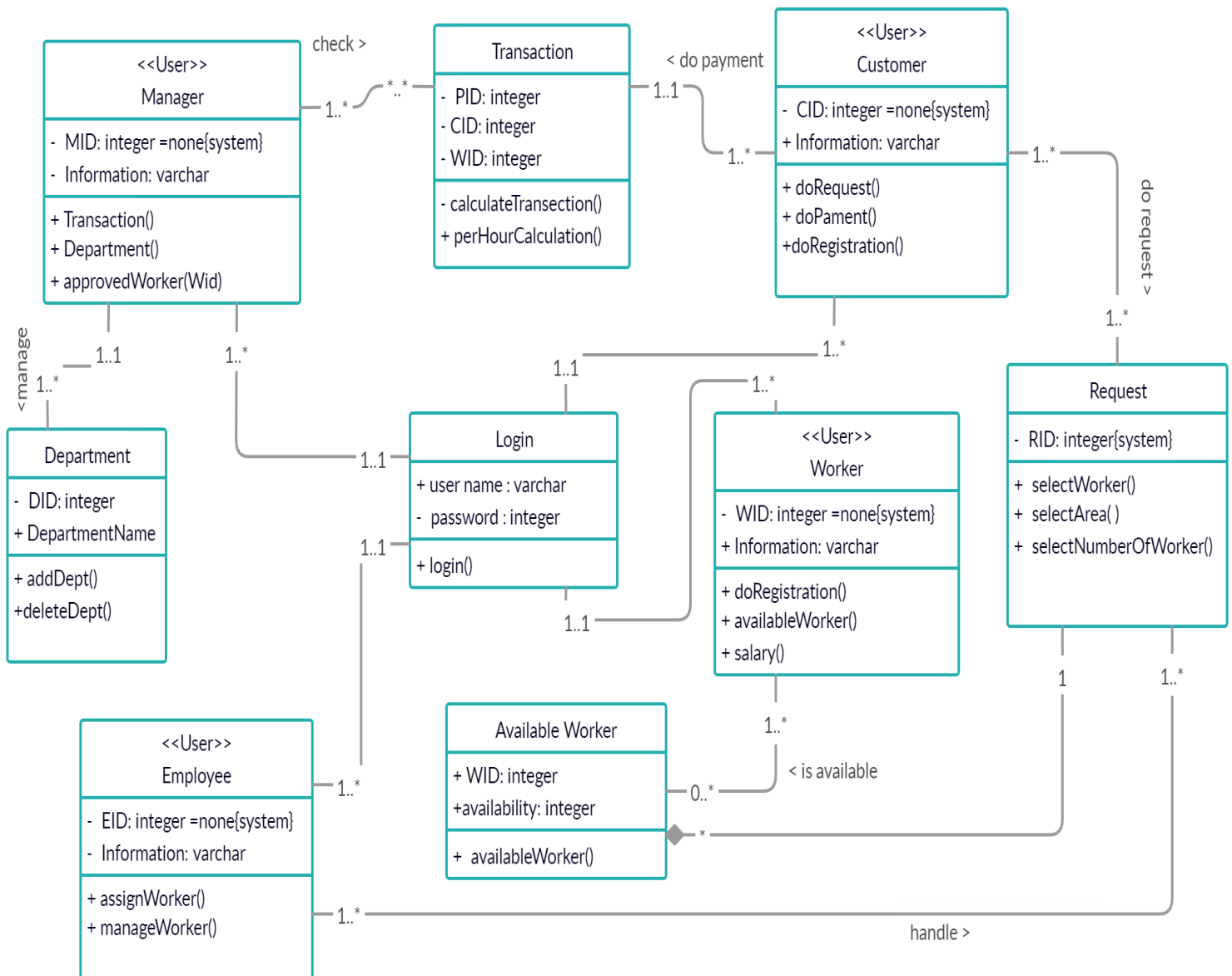
3.

3.1 Use Case Diagram:

Online worker service provider is an app which is used for a user to search nearby worker. First of all the user have to create an account by using name, email and phone number .If they unable to complete this requirement from app in that time they can take help from manager or employee physically in worker provider office .After that user will log into the system and choose the worker department request for the worker. Employee will accept or decline the request. If worker is available then the employee will assign worker. For joining worker, they send their CV. Manager will approve the CV by checking their information .Then worker go to their destination address provided by user. Before starting work worker must talk with the user about service or payment. If he want payment daily then worker must inform it to the user or if he want after finishing work this also necessary to inform the user. When all these are accepted by both worker and user then Worker will provide service. Then the user can make payment cash or online. After getting money manager will provide clearance.

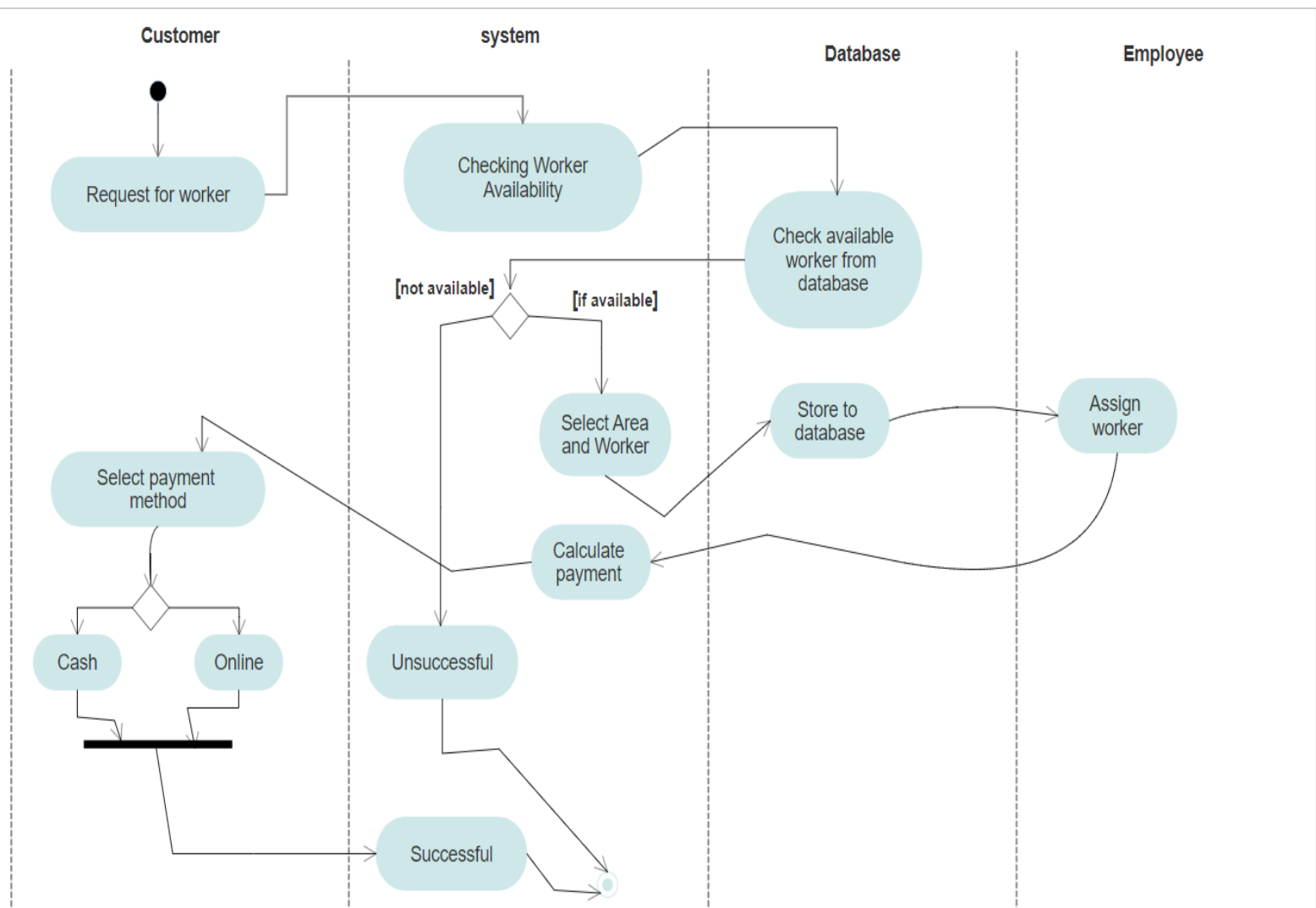
3.2 Class Diagram :

- Every user, worker, employee and manager must logged in.
 - User can pay money by cash or online.
 - Manger will verify the CV.
 - Manager will take the money from the user.
 - Worker can get work from Employee.
 - Employee can accept or rejected the request from the user.
- Every worker will be assigned into the specific department



3.3 Activity Diagram:

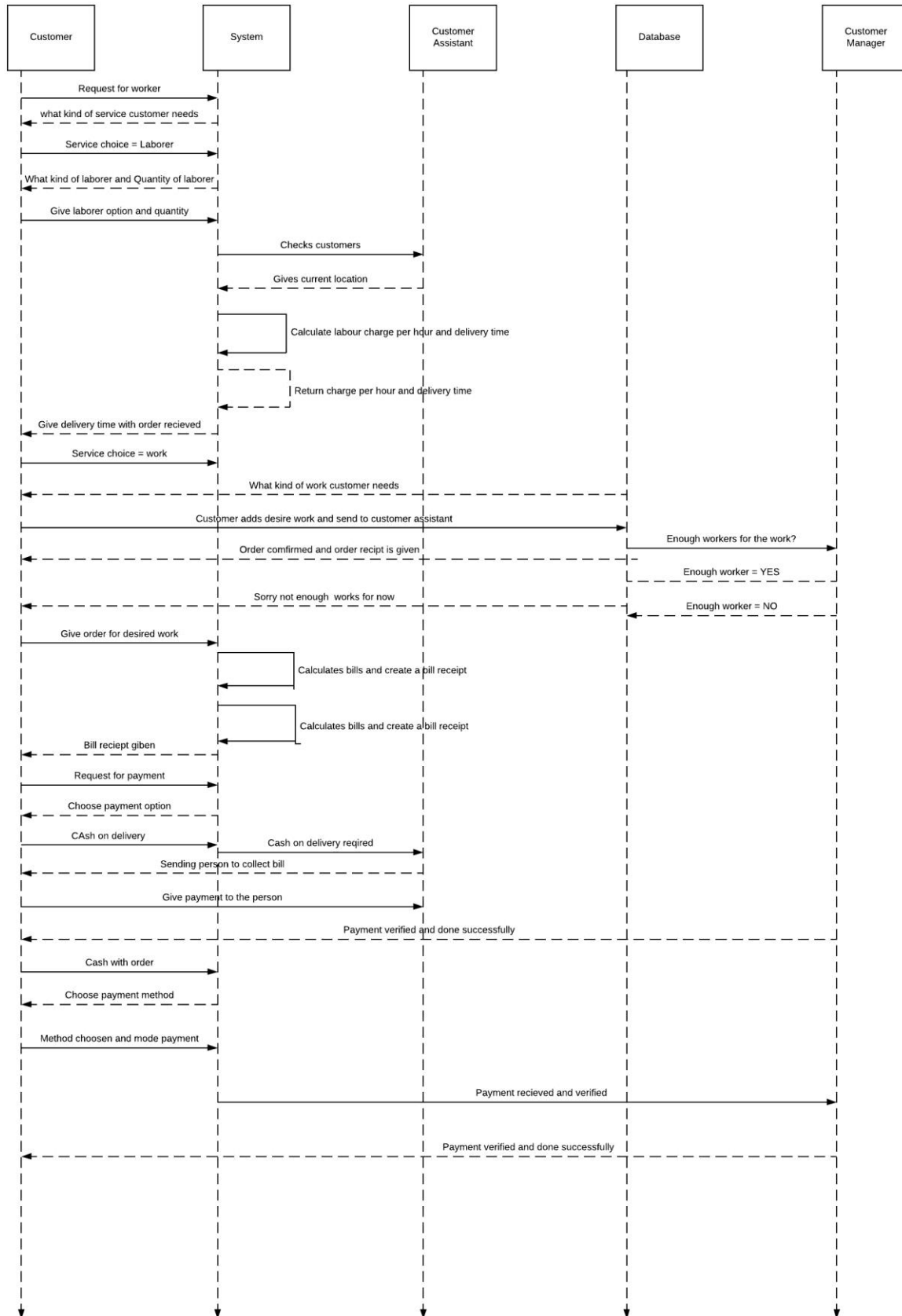
In our system, User have to log into the system. Our system will verify the user from database. If the user is verified, he/she will be logged in successfully. After that user request for a worker by using worker department and area. Then the employee will check the worker will available or not. If available then worker will provide service. Before provide service worker have to talk with user about payment and types of work he have to done for user. When these requirements are completed then worker provide service to the user. After getting service user have two option to pay one is cash and the other is online. If user want to make payment cash then user have to meet with employee or manager in their worker provider office. Or if user want to make payment online then there are many ways for make payment easily. By that they can easily pay money successfully.



3.4 Sequence Diagram :

Sequence Diagram:

In an online worker provider system customer first request the system to get a worker. Then the system asks the customer what kind of service the customer needs and gives the available worker choice to the customer. Then the customer replies the desired service he needs. If the customer wants a laborer service. The system asks the customer what kind of laborer and the quantity the customer needs. Then the customer gives his desired laborer option and number of laborers to the system and system check in the database, if the desired laborer is available the system then checks the Customers current location and available worker in the database. Based on this the system calculates the charge per hour of the laborer and delivery time of laborers and gives an order receipt to the customer. Then, customer assistant asks the customer what type of work the customer needs. The customer then adds desired works and send to customer assistant then the customer assistant checks in the database if there is enough worker available for the desired work, if yes then he confirms the order and give a confirmation message with an order receipt. If there is not enough worker available, the assistant replies with a sorry message. Then customer gives his order and system calculates the bill and create a bill at the same time and gives a bill receipt to the customer with a confirmation message. In case of payment the customer requests the system for payment. System then offers two options, cash with order or cash on delivery. If the customer choose cash on delivery. Then system send the request to the customer assistant and the customer assistant sends a person to the customer for taking the bill the customer then pay and the customer assistant then confirm the payment and sends it to customer manager and the customer manager than verify it and send a confirmation message to the customer. If the customer choose cash with order, system gives three options credit cards, bkash and rocket. Then the customer uses one of the methods and pay the bills and then system send a confirmation to the customer manager for payment and the manager check the payment and gives a confirmation message to the customer.



4. SELECTION OF PROCESS MODEL

In our project “**Online work service provider**” we are going to develop a software where all the requirements are there. In this software we are going to use AGILE DEVELOPMENT MODEL.

There are many kind of model available like waterfall, V-model, RAD but all the above we choose Agile model the reason behind it is because of our software structure. Our software is a dynamic model which is not that much helpful for other models like waterfall and others. If we face any kind of problem we can't fix it from development process as the waterfall model works in sequentially but with the help of Agile model we can fix the issue if we have any kind of form development process. There are many advantage of this Agile method like flexible, less complexity, better feedback, less time take, not huge sized, less risks , and much more. Our software doesn't need large team to execute also our software is fully dynamic and lightweight. In our software our main target is to contract with small business so this is the best way to use this method.

So this is the reason why we choose **AGILE DEVELOPMENT MODEL** among all other methods.

Agile Manifesto:

1. Our highest priority is to satisfy the costumer through early and continuous delivery of valuable software
2. Welcome changing requirements, even late in development. Agile process harness (control) change for the customer's competitive advantage
3. Deliver working software frequently with a preference to the shorter timescale
4. Businesspeople and developers must work together daily throughout the project
5. Build projects around motivated individuals. Give them the environment and support their need, and trust them to get the job done
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation

7. Working software is the primary measure of progress
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace persistently
9. Continuous attention to technical excellence and good design enhances agility
10. Simplicity – use simple approaches to make changes easier
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly

Why Agile?

From agile manifesto we can see that Through Agile we meet the customer's demand and their safety is the biggest priority. Requirements cannot be changed in other software methods. Many times the software becomes bad for requirement .In Agile requirement and late development can be changed .In other method customer direct get the permanent product but if there any problem they cannot change it .In agile there are time box and scope. After a few days, the customer gets to see a form of his product because after the work is done in small parts, delivery is given to the customer so that if there is any problem, it will be resolved. Agile gives the best team to end the project.

5. UI/UX Design

5.1 Main interface



5.2 Sign up Interface for normal users

OWSP

Signing up....

Full Name:

Username:

Phone Number:

Password:

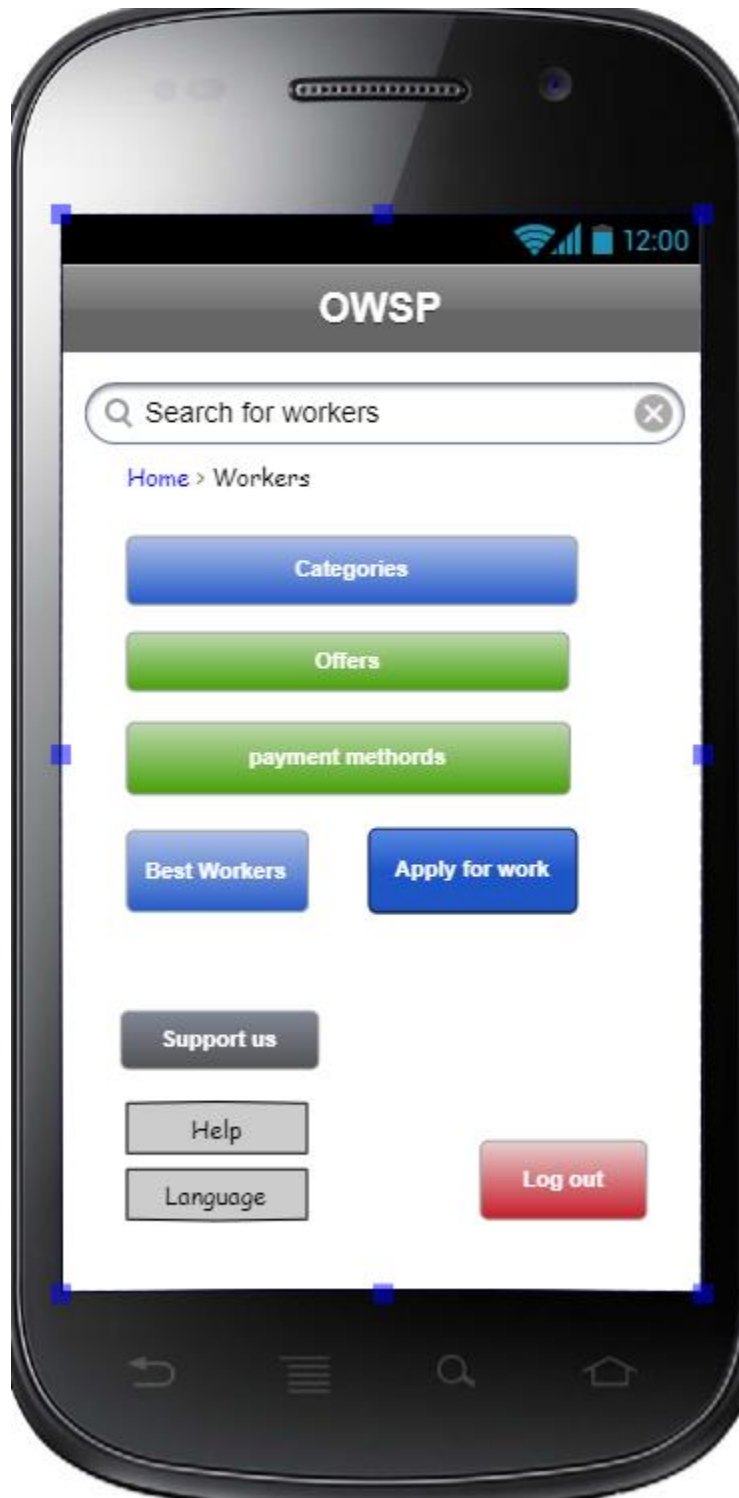
Confirm Password:

☐ I accept all the terms

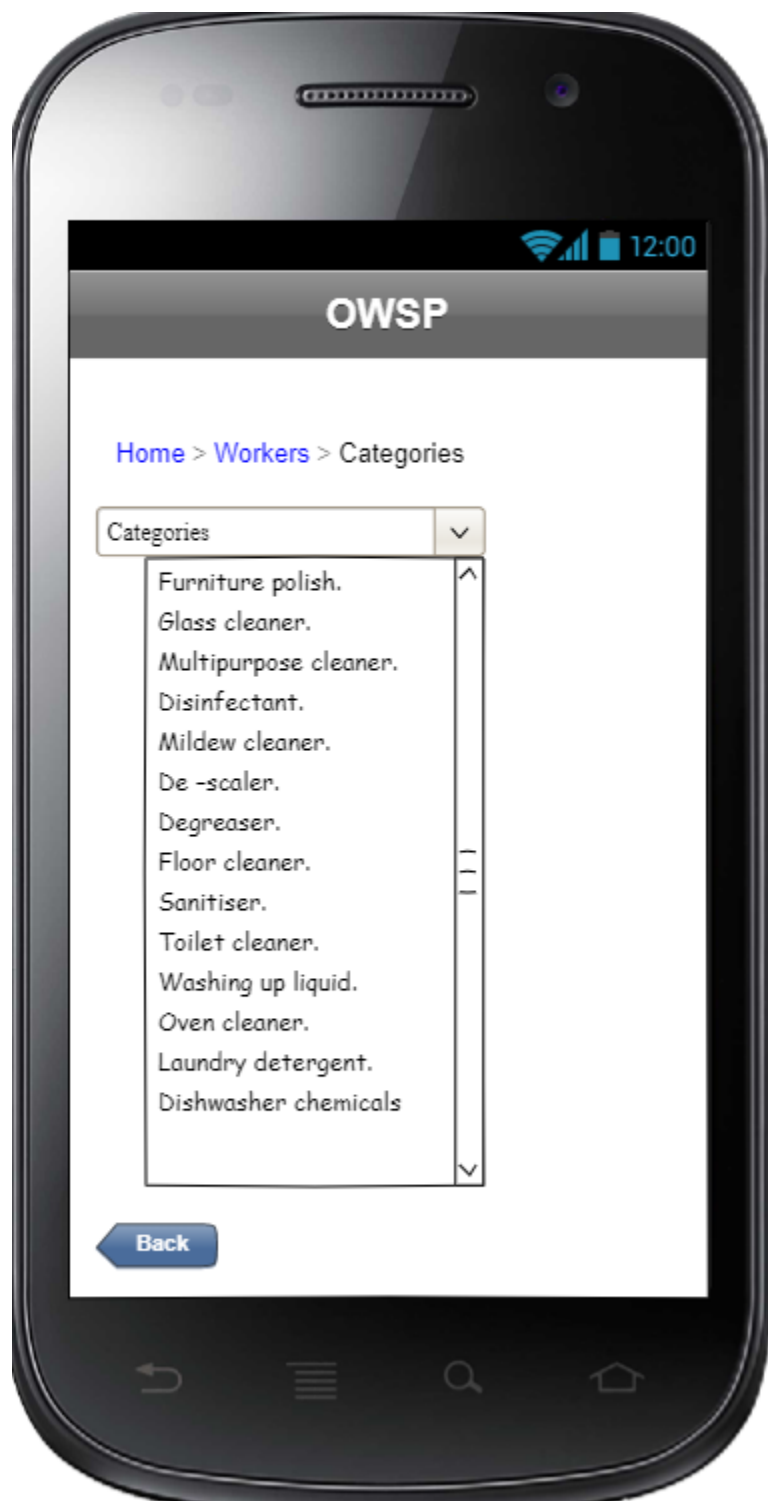
Cancel Done

Zoom controls: - +

5.3 After log in interface:



5.4 Categories Interface



5.5 . Applying for work interface:

OWSP

Home > Workers > Apply for work

Worker Name :

Worker Type :

NID Number :

Mobile Number :

Working Experience :

Worker Photo :

☐ I accept all the condition given by the administrator

☐ Are you sure?

Cancel OK

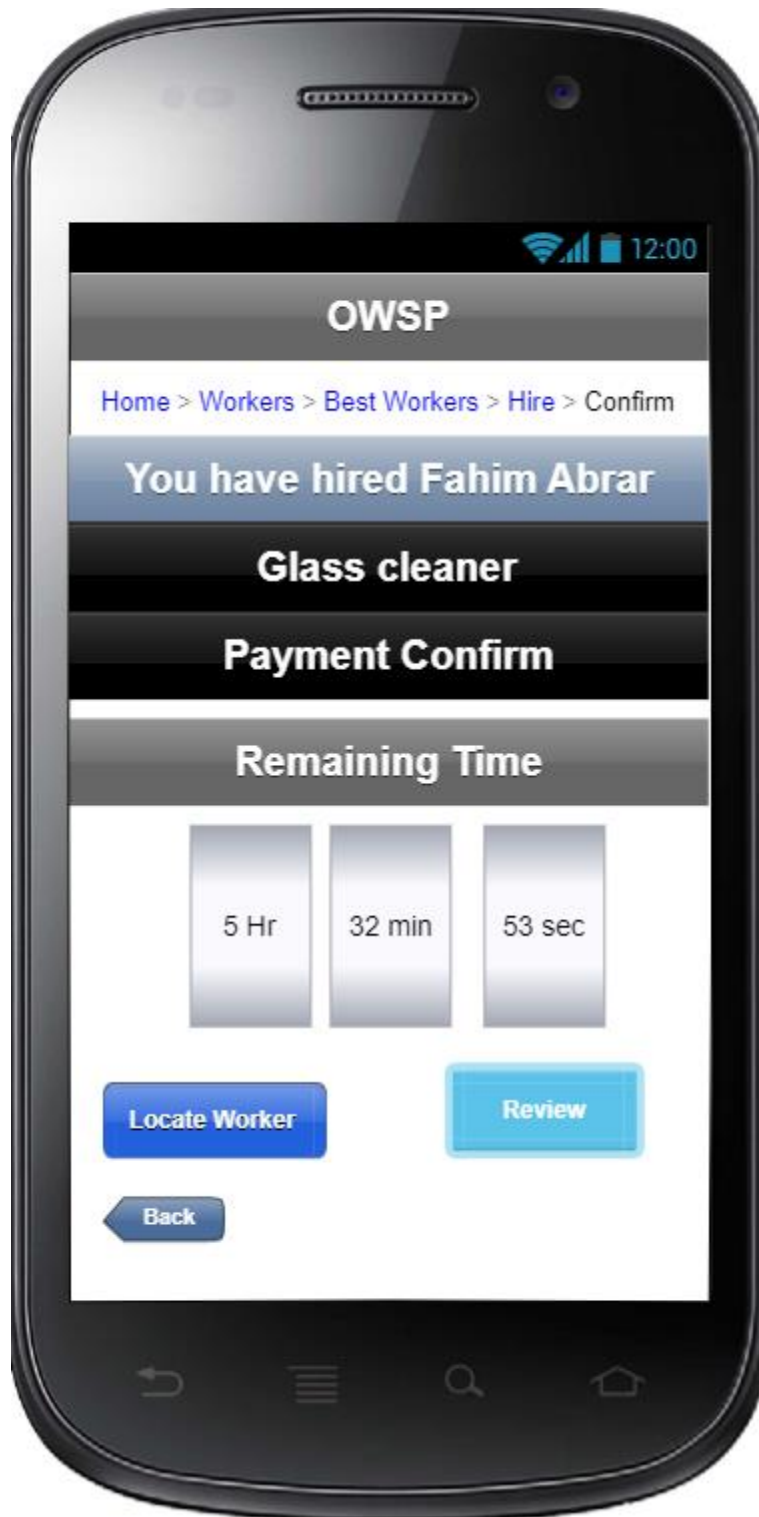
5.5 Best workers and review of workers interface



5.7: Confirming the worker for hire interface



5.8 After confirming the worker how much time left for that worker also the review depending the work and last but not lest how can you locate the worker when he is on the way interface



5.9 Notification Interface



5.10 Log out Interface



6: Project Test Planning

Project Name: Online Work Service Provider			Test Designed by: MD Soumik Hasan	
Test Case ID: Functional requirement 1			Test Designed date: 9/5/2020	
Test Priority (Low, Medium, High): High			Test Executed by: MD Soumik Hasan	
Module Name: System Features			Test Execution date: 9/7/2020	
Test Title: Verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: MD Soumik Hasan		
Test Case ID: Functional requirement 2		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): Medium		Test Executed by: MD Soumik Hasan		
Module Name: Search		Test Execution date: 9/7/2020		
Test Title: Verified the search engine with the workers who are available.				
Description: Test searching page				
Precondition (If any): User must have valid username and password for searching.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click Search	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: SAYMA RAHMAN TASNIM		
Test Case ID: Functional requirement 3		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: SAYMA RAHMAN TASNIM		
Module Name: Order place		Test Execution date: 9/7/2020		
Test Title: Verify order place with real workers				
Description: Test website order place				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click Order place	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: SAYMA RAHMAN TASNIM		
Test Case ID: Functional requirement 4		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): Medium		Test Executed by: SAYMA RAHMAN TASNIM		
Module Name: Location		Test Execution date: 9/7/2020		
Test Title: Verify the location for the workers and also the user who want to hire the workers				
Description: Test the GPS for the website/application				
Precondition (If any): User must have built in GPS on the device				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click Locate my worker	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: JUNAYED BIN IQRAM		
Test Case ID: Functional requirement 5		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): Medium		Test Executed by: JUNAYED BIN IQRAM		
Module Name: Notification		Test Execution date: 9/7/2020		
Test Title: Verify after log in the device/website is giving the right notification				
Description: Tested the notification menu.				
Precondition (If any): User must have allow the notification from their device				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Check for notification	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: JUNAYED BIN IQRAM		
Test Case ID: Functional requirement 6		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: JUNAYED BIN IQRAM		
Module Name: Review		Test Execution date: 9/7/2020		
Test Title: Verified the user and workers review				
Description: Test website review section				
Precondition (If any): User must have hired that worker which he/she want to give the review				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click for giving the review	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider			Test Designed by: RAHIF HASAN	
Test Case ID: Functional requirement 7			Test Designed date: 9/5/2020	
Test Priority (Low, Medium, High): High			Test Executed by: RAHIF HASAN	
Module Name: Payment			Test Execution date: 9/7/2020	
Test Title: Verified the payment method through Bkash/card				
Description: Test website payment method page				
Precondition (If any): User must have a valid Bkash account or a valid Card				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click for hire the worker 5. Selected the payment method	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: RAHIF HASAN		
Test Case ID: Functional requirement 8		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: RAHIF HASAN		
Module Name: Security		Test Execution date: 9/7/2020		
Test Title: Verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: SAYMA RAHMAN TASNIM		
Test Case ID: Non Functional requirement 1		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): Mid		Test Executed by: SAYMA RAHMAN TASNIM		
Module Name: Protection		Test Execution date: 9/7/2020		
Test Title: Verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: JUNAYED BIN IQRAM		
Test Case ID: Non Functional requirement 2		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: JUNAYED BIN IQRAM		
Module Name: Availability		Test Execution date: 9/7/2020		
Test Title: Verified in all the interfaces is it running smoothly or not.				
Description: Tested with windows, MACOS, IOS, android.				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: RAHIF HASAN		
Test Case ID: Non Functional requirement 3		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: RAHIF HASAN		
Module Name: Measurement		Test Execution date: 9/7/2020		
Test Title: Verified with all the browser for example chrome, Firefox.				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider			Test Designed by: MD SHAFIUL WAHID	
Test Case ID: Non Functional requirement 4			Test Designed date: 9/5/2020	
Test Priority (Low, Medium, High): high			Test Executed by: MD SHAFIUL WAHID	
Module Name: Integrity			Test Execution date: 9/7/2020	
Test Title: Verified login with valid username and password and all the data input also output is going well.				
Description: Test website login page with inputs and outputs.				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Project Name: Online Work Service Provider		Test Designed by: MD SHAFIUL WAHID		
Test Case ID: Non Functional requirement 5		Test Designed date: 9/5/2020		
Test Priority (Low, Medium, High): High		Test Executed by: MD SHAFIUL WAHID		
Module Name: Error handling		Test Execution date: 9/7/2020		
Test Title: Verified all the bugs and problem				
Description: Tested mean time to recover from, an error and be able to continue the task.				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: Rahim18.me Password: 321	User should login into the application		
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

