American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science & Technology (FST)

PROJECT TITLE

Income Tax Return Assessment Software

A Software Engineering Project Submitted
By

Semester: Summer_2023-24		Section:A	Group Number:7	
SN	Student Name	Student ID	Contribution (CO1+CO2)	Individual Marks
01	Avishek Chanda Pratyay	21-45489-3	20%	
02	Mehedi Hasan	21-45513-3	20%	
03	Dipta Banik	21-45520-3	20%	
04	Sadia Afroz Shuprova	22-46462-1	20%	
05	MD.Hasibul Hassan	22-46289-1	20%	

The project will be Evaluated for the following Course Outcomes

CO1: *Analyze* the impact of software engineering models over various context of software development to assess societal, health, safety, legal and cultural issues.	Total Marks	
Project Background Analysis and feasibility (needs, goal, benefits, etc.)	[5 Marks]	
Analysis the impact of societal, health, safety, legal and cultural issues	[5Marks]	
Review of existing Studies and Relevant Example	[5Marks]	
CO2: *Explain* appropriate software engineering model, project management roles and their skills in the context of professional engineering practice and solutions to complex engineering problems in a software development environment.	Total Marks	
Appropriate Process Model Selection and Argumentation with Evidence	[5Marks]	
Evidence of Argumentation regarding process model selection	[5Marks]	
Submission, Defense, Completeness, Spelling, grammar and Organization of the Project report	[5Marks]	

Wireframe Design

Objective: Design User Interface and User Experience of the Proposed Solution about **Income Tax Return Assessment Software**.

Tools/ Device:
1. Personal Computer/ Laptop
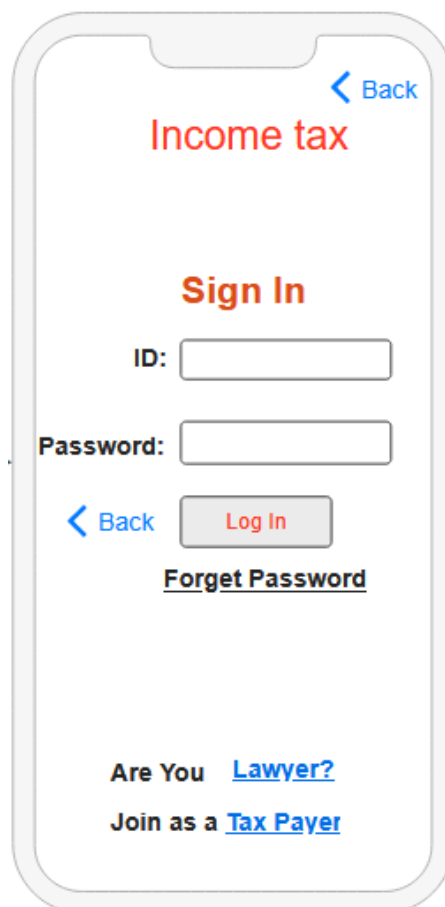2. Internet
3. Moqups: https://moqups.com

Procedure:
1. Select and appropriate tools for prototyping which is **Moqups**.
2. Design a prototype of **Income Tax Return Assessment Software** using the selected tools based on the above-mentioned UI/UX design principles.
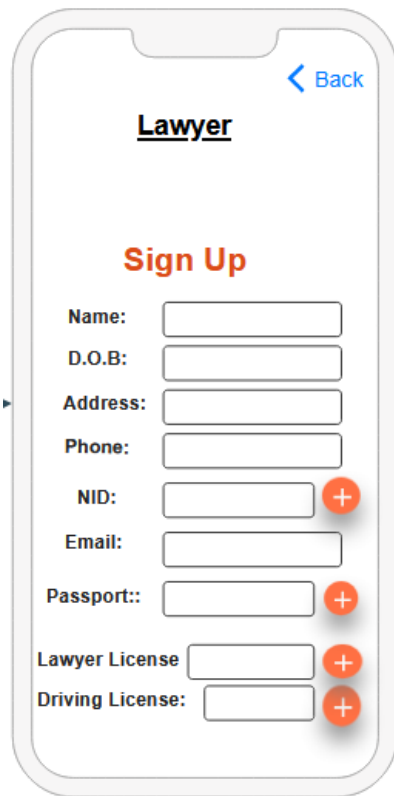
Design of UI/UX: This section is divided in Five parts which is developed by five members of our team.
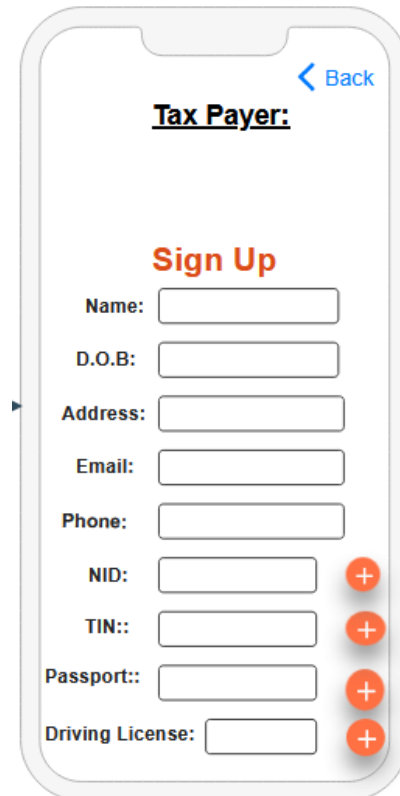**(First Part)**
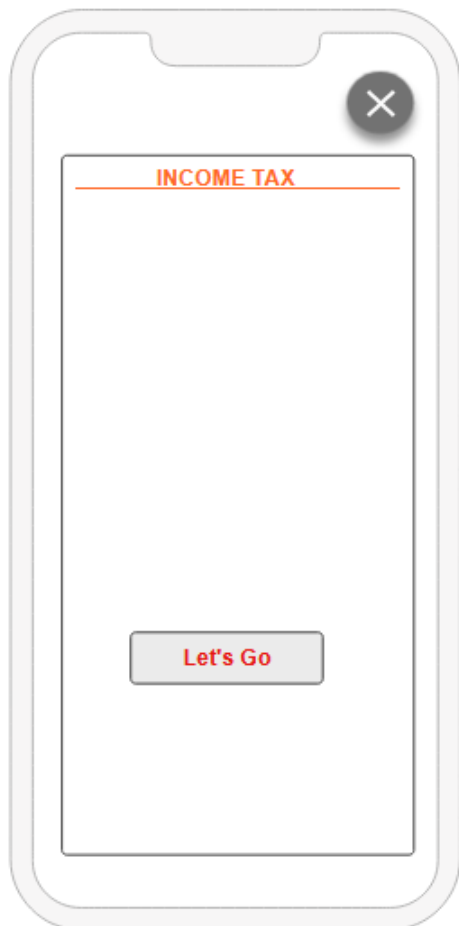
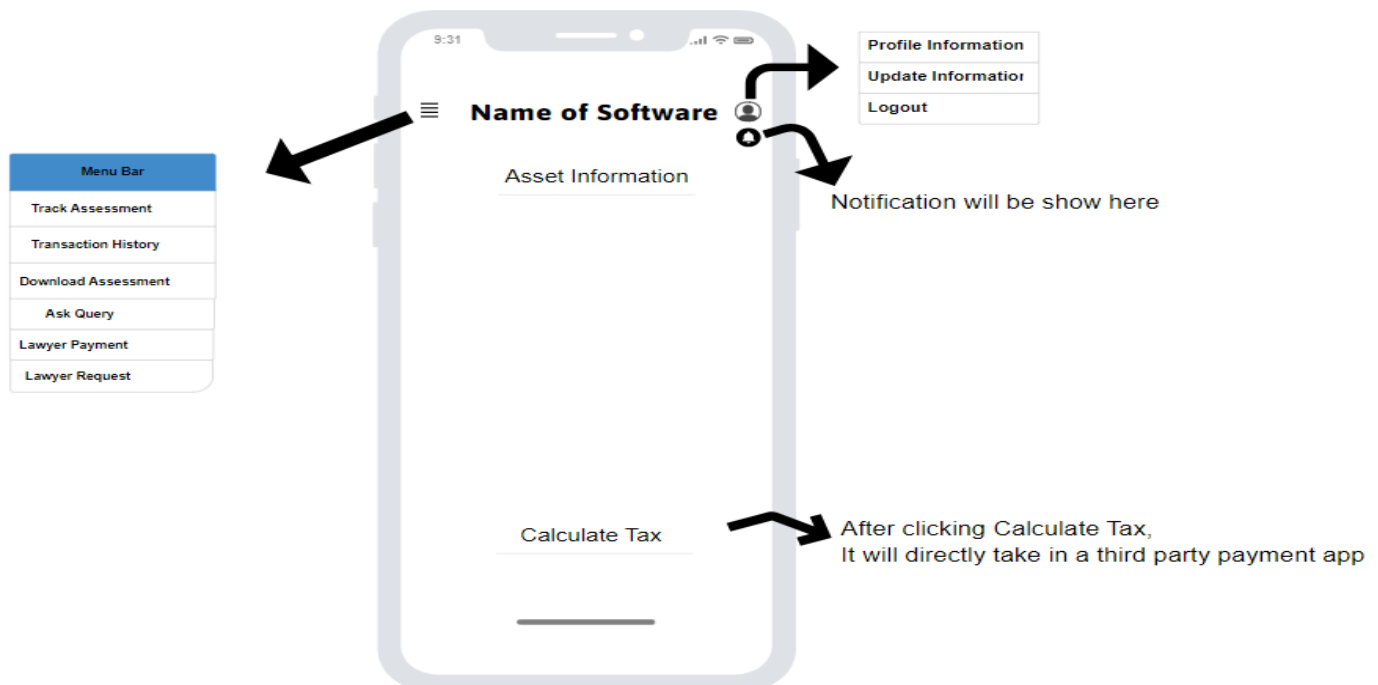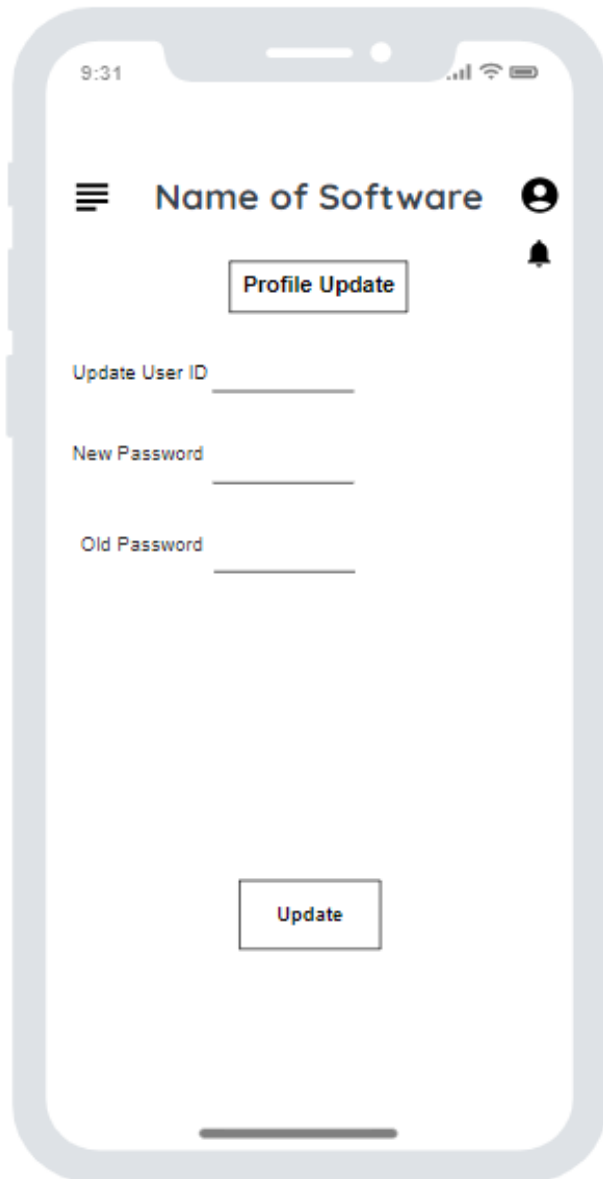**This is Home Page**   **Loging page**

Lawyer Sing up page

Taxpayer Sing up page

Lawyer

Back

Sign Up

Name:
D.O.B:
Address:
Phone:
NID: +
Email:
Passport::   +

Lawyer License   +
Driving License: +

Tax Payer:

Back

Sign Up

Name:
D.O.B:
Address:
Email:
Phone:
NID: +
TIN::   +
Passport::   +
Driving License: +

(Second Part)

Taxpayer logging default page

9:31

≡ **Name of Software** 👤

Profile Information
Update Information
Logout

Asset Information

Notification will be show here

Menu Bar
Track Assessment
Transaction History
Download Assessment
Ask Query
Lawyer Payment
Lawyer Request

Calculate Tax

After clicking Calculate Tax,
It will directly take in a third party payment app

Profile option sub menu: (profile update)   **Profile option sub menu: (Information Update)**

9:31

≡ Name of Software 👤
🔔
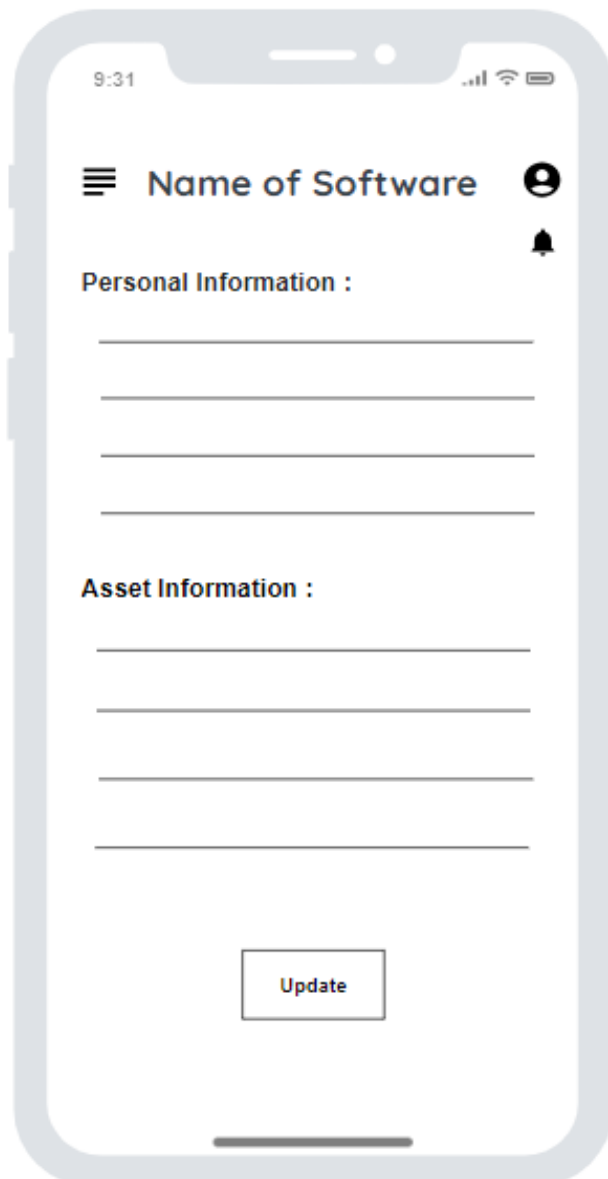
Profile Update

Update User ID _____

New Password
_____

Old Password
_____

Update

9:31
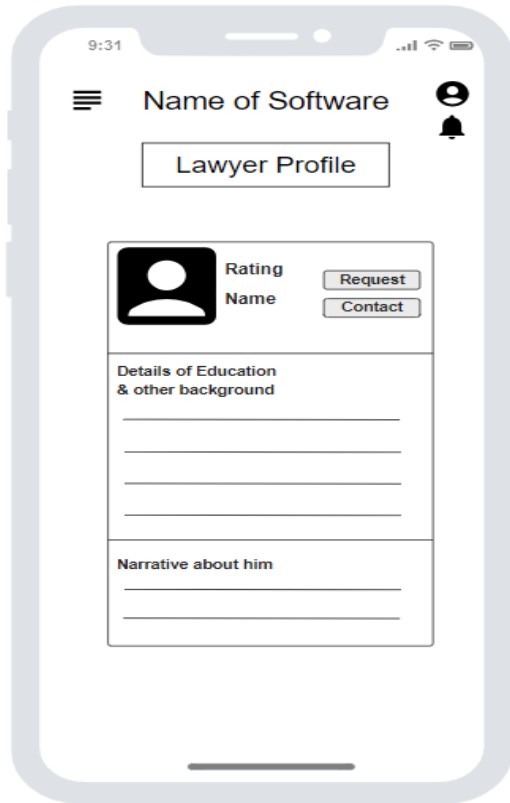
≡ Name of Software 👤
🔔

Personal Information :

_____
_____
_____
_____

Asset Information :

_____
_____
_____
_____

Update

Lawyer Profile   **(Third Part)   Assessment Certificate**

Lawyer Profile

9:31

≡ Name of Software

Lawyer Profile
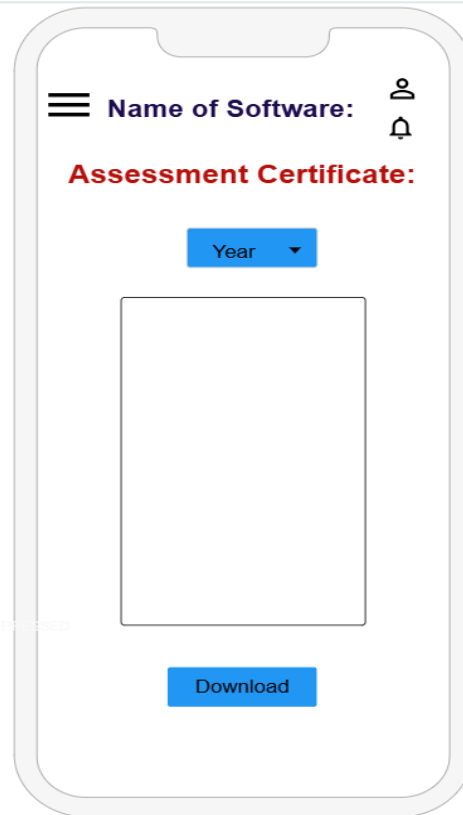
Rating
Name

Request
Contact

Details of Education
& other background

_____
_____
_____
_____

Narrative about him

_____
_____

Assessment Certificate
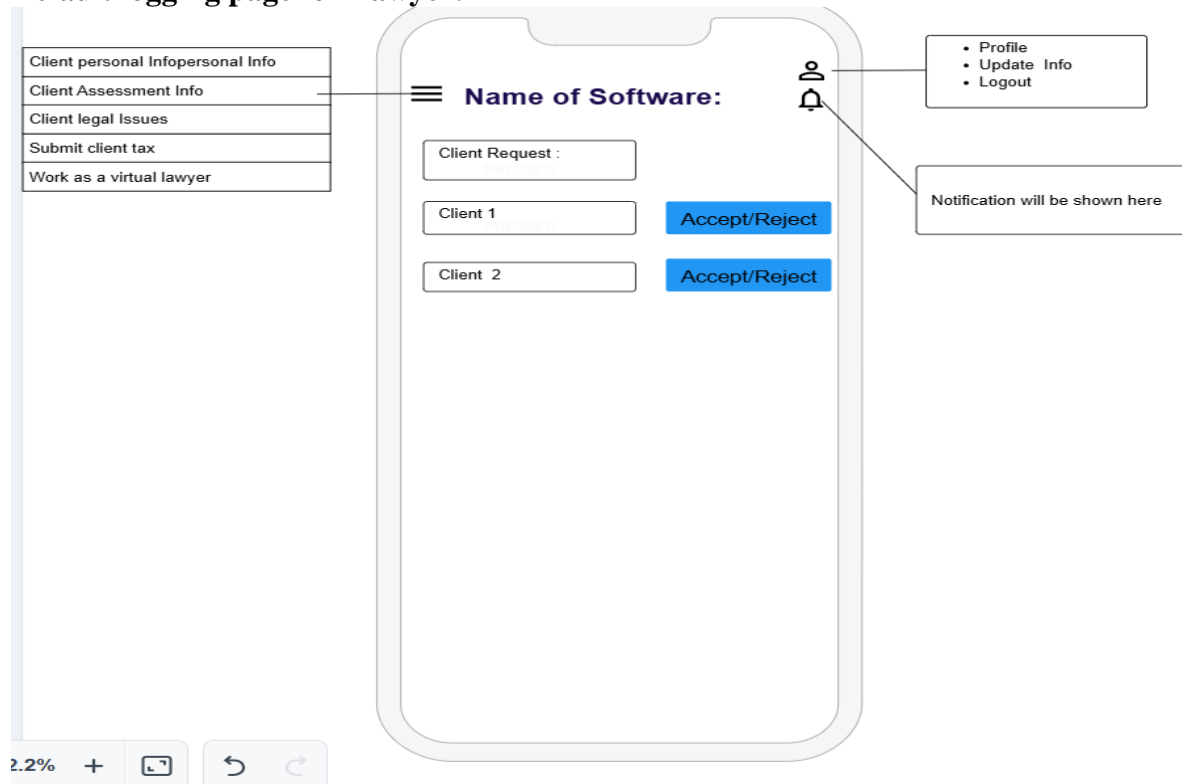
≡ Name of Software:

Assessment Certificate:

Year ▼

Download

Default logging page for Lawyer:

| Client personal Infopersonal Info |
| Client Assessment Info |
| Client legal Issues |
| Submit client tax |
| Work as a virtual lawyer |

≡ **Name of Software:**

Client Request :

Client 1   Accept/Reject

Client 2   Accept/Reject

- Profile
- Update Info
- Logout

Notification will be shown here

2.2%   +   ⟥⟤   ↺   ↻

Lawyer Payment:

Ask Query:

Name of Software:

Appointed Lawyer:

Lawyer Name

Ask for Payment

Payment Details:

Make Payment

Name of Software:

FAQ:

1. FAQ-1
2. FAQ-2
3. FAQ-3

Want to know more?

or   Live consultancy

Send

(Fourth & Fifth Part)

Client personal Info: (Lawyer)
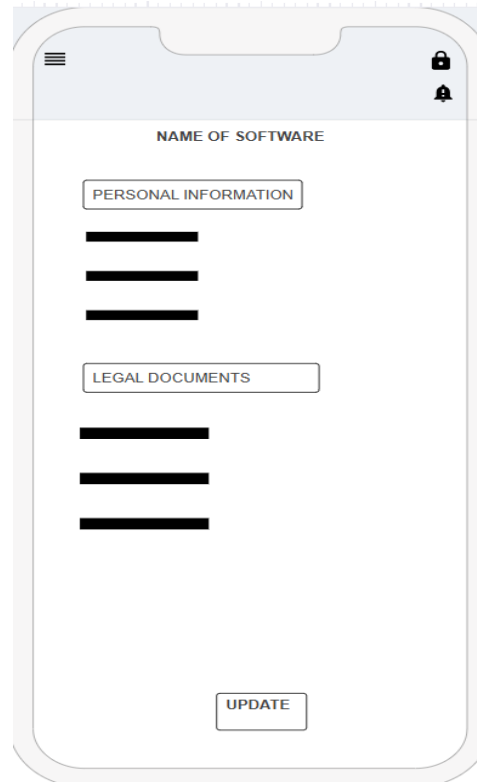
Client Assessment Info:

9:31

Name of software

Client Personal Info:

Name :

E-mail :

Address :

Documents :

9:31
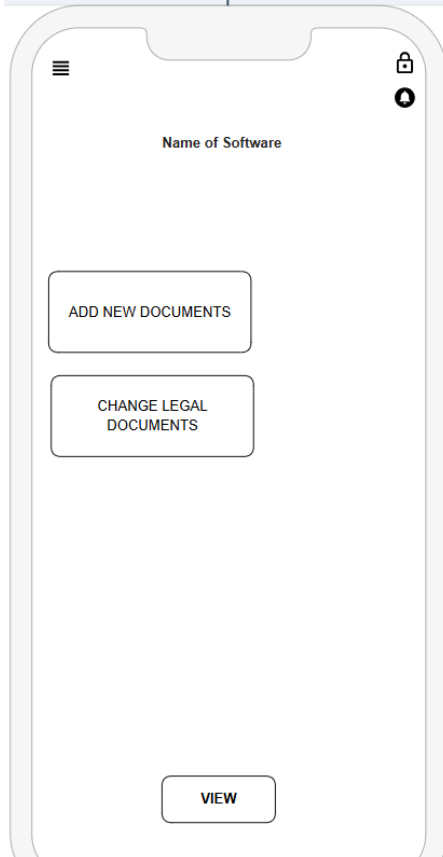
Name of software

Asset Information

Calculate Tax

Profile Update: (Lawyer)
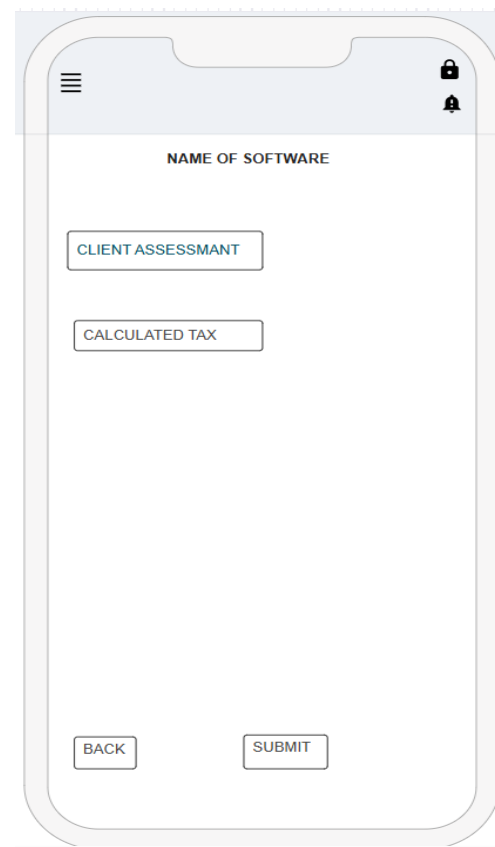
NAME OF SOFTWARE

PROFILE UPDATE:

ADD NEW EMAIL

NEW PASSWORD

OLD PASSWORD

EDIT

Information update: (Lawyer)

NAME OF SOFTWARE

PERSONAL INFORMATION

▬▬▬▬▬

▬▬▬▬▬

▬▬▬▬▬

LEGAL DOCUMENTS

▬▬▬▬▬

▬▬▬▬▬

▬▬▬▬▬

UPDATE

Client Issues: (Lawyer)

Name of Software

ADD NEW DOCUMENTS

CHANGE LEGAL DOCUMENTS

VIEW

Submit Client Tax: (Lawyer)

NAME OF SOFTWARE

CLIENT ASSESSMANT

CALCULATED TAX

BACK   SUBMIT

Works as a virtual Lawyer

NAME OF SOFTWARE

START LIVE CHAT:

| CLIENT 1 | REPLY |

| CLIENT 2 | REPLY |
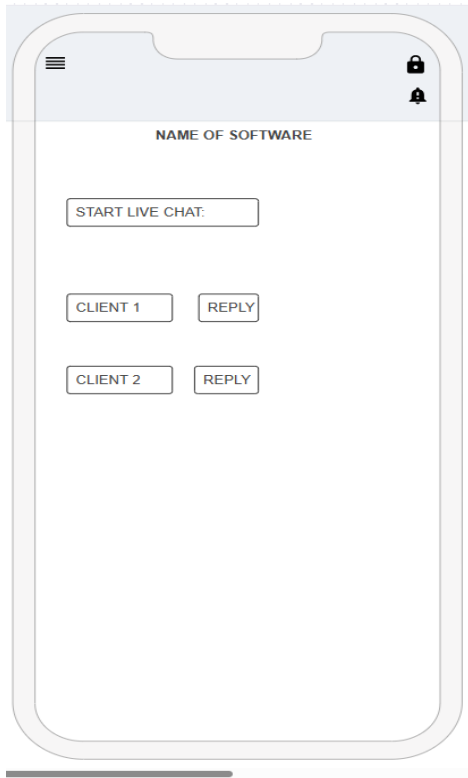
Tax Official (After a successful login)   (Verification page)

9:31

Software Name

Verify Client Assesment

1. Name ID Surname   Verify   Block

2.

3.

9:31

Software Name

Client Info

1. Name

2. Assets:

3.

Verify

Test Case

Project Name: Income Tax Return Assessment			Test Designed by: Mehedi Hasan		
Test Case ID: S_1			Test Designed date: 05-09-24		
Test Priority: Medium			Test Executed by:		
Module Name: Lawyer Sign Up Session			Test Executed date:		
Test Title: verify Sing Up with valid Name, D.O.B, Address, Phone, NID (Upload), TIN (Upload), Passport Num (Upload), Lawyer License (Upload) and Driving License (Upload)					
Description: Test website Lawyer Sing Up page					
Precondition (If any): User must have valid Name, D.O.B, Address, Phone, NID (Upload), TIN (Upload), and Lawyer License (Upload).					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1. Go to the website 2. Enter Name 3. Enter D.O.B 4. Enter Address 5. Enter Phone 6. Enter NID(Upload) 7. Enter TIN(Upload) 8. Lawyer License (Upload)	Name: Mehedi D.O.B: 21-01-2001 Address: Lahini, Kushtia Phone: 01700000000 NID: 00000556 TIN: 45646 Lawyer License: 5469676	User should Sign Up into the application	As expected	Pass	
Post Condition: User is validated with database and successfully Sign Up to account. The account session details are Lawyer Sing Up in the database.					

Project Name: Income Tax Return Assessment			Test Designed by: Mehedi Hasan		
Test Case ID: S_2			Test Designed date: 05-09-24		
Test Priority: Medium			Test Executed by:		
Module Name: Tax payer Sign Up Session			Test Executed date:		
Test Title: verify Sign Up with valid Name, D.O.B, Address, Email, Phone, NID (Upload), TIN (Upload), Passport Num (Upload) and Driving License.					
Description: Test website Tax payer Sing Up page					
Precondition (If any): User must have valid Name, D.O.B, Address, Email, Phone, NID (Upload) and TIN (Upload).					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1. Go to the website 2. Enter Name 3. Enter D.O.B 4. Enter Address 5. Enter Email 6. Enter Phone 7. Enter NID(Upload) 8. Enter TIN(Upload)	Name: Dipta D.O.B:23-01-2001 Address: Bottola, Kushtia Phone: 017000000038 NID:08000064556 TIN:456000054	User should Sign Up into the application	As expected	Pass	

	Lawyer License: 5469676			

Post Condition: User is validated with database and successfully Sign Up to account. The account session details are Tax Payer Sing Up in the database.

Project Name: Income Tax Return Assessment			Test Designed by: Mehedi Hasan	
Test Case ID: L_1			Test Designed date: 05-09-24	
Test Priority: High			Test Executed by:	
Module Name: Login Session			Test Executed date:	
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 userId 3. Enter password 4. Click submit	Username: 945646546 Password: 5465	User should login into the application	As expected	Pass

Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.

Project Name: Income Tax Return Assessment			Test Designed by: Avishek Chanda Pratyay	
Test Case ID: FR_1			Test Designed date: 05/09/24	
Test Priority: Medium			Test Executed by:	
Module Name: Taxpayer profile Update			Test Executed date:	
Test Title: reset userID and password for each profile				
Description: Test profile update page				
Precondition (If any): To reset from update profile page, user must need to enter the old password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the software 2. Enter new username or 3. Enter new password 4. Click update	userID: SD8171 Old Password: 321sD@# New Password: Sds321123!@#	User should login out from the application initially.	As expected	Pass

Post Condition: Newly set upped password is updated on database. The account session details are logged in the database.	

Project Name: Income Tax Return Assessment	Test Designed by: Avishek Chanda Pratyay
Test Case ID: FR_2	Test Designed date: 05/09/24
Test Priority: High	Test Executed by:
Module Name: Taxpayer Information Update	Test Executed date:
Test Title: Update personal and Asset information	
Description: Test Information Update page	
Precondition (If any): User must have some mandatory prior asset and personal information	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click on Information Update 2. Check info list which is need to be updated 3. Enter update	Example (Personal): Pre. Passport Expire date: 11/04/23 New Passport Expire date: 11/04/28 Example (Asset): Pre. Shop land area: Habiganj, Khatian No 328 Now Shop land area: blank (suppose it was sold)	New passport expire date is saved and sold asset information removed.	As expected	Pass

Post Condition: Updated asset information should save in the database and if any uploaded document is updated then it should be replaced on cloud storage.	

Project Name: Income Tax Return Assessment	Test Designed by: Avishek Chanda Pratyay
Test Case ID: FR_3	Test Designed date: 22/03/23
Test Priority: High	Test Executed by:
Module Name: Lawyer Payment by Taxpayer	Test Executed date:
Test Title: Show lawyer payment details and make payment	
Description: Test Lawyer Payment page	
Precondition (If any): A lawyer is previously appointed.	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click on Ask for payment 2. Enter make payment	N/A	For "Ask for Payment": A detail information should be shown. For "Make Payment":	As expected	Pass

		Redirect to third party payment page		
Post Condition: A mail will be sent to the Lawyer registered email with payment details from that third party payment authority (Like: SSLcommerz)				

Project Name: Income Tax Return Assessment			Test Designed by: Avishek Chanda Pratyay	
Test Case ID: FR_4			Test Designed date: 05/09/24	
Test Priority: Low			Test Executed by:	
Module Name: Ask query			Test Executed date:	
Test Title: Show FAQ and ask new query				
Description: Test Ask query page				
Precondition (If any): N/A				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click on the query textbox 2. Enter send	In textbox: "Can I resubmit my assessment after a successful payment? "	In Message Box: "Your query is successfully generated. Keep patience, please."	As expected	Pass
Post Condition: A notification should pop up on income tax officials' notification icon				

Project Name: Income Tax Return Assessment			Test Designed by: Dipta Banik	
Test Case ID: TP_1			Test Designed date: 05/09/2024	
Test Priority: High			Test Executed by:	
Module Name: Calculate Tax			Test Executed date:	
Test Title: verify if the system is assessing the provided documents and calculating the tax properly.				
Description: Test calculate tax page				
Precondition (If any): User must upload all documents				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login 2. Calculate Tax	Uploaded asset documents.	The tax should be calculated.	As expected	Pass
Post Condition: Tax is calculated successfully and the detailed assessment is saved to the cloud storage.				

Project Name: Income Tax Return Assessment			Test Designed by: Dipta Banik		
Test Case ID: TP_2			Test Designed date: 05/09/2024		
Test Priority: Low			Test Executed by:		
Module Name: Track Assessment			Test Executed date:		
Test Title: verify if the system is tracking the assessment appropriately.					
Description: Test the tracking page					
Precondition (If any): User must submit the assessment and have the verified status					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1. Submit the assessment 2. Click menu 3. Select track assessment option	Submission	The assessment should be tracked successfully.	As expected	Pass	
Post Condition: User successfully tracked the verification of the assessment.					

Project Name: Income Tax Return Assessment			Test Designed by: Dipta Banik		
Test Case ID: TP_3			Test Designed date: 05/09/2024		
Test Priority: Medium			Test Executed by:		
Module Name: Assessment certificate download			Test Executed date:		
Test Title: verify if the system is successfully downloading the assessment certificate appropriately.					
Description: Test the downloading page					
Precondition (If any): Tax assessment must be completed					
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1. Click menu 2.Select download assessment certificate option 3. Click download	Assessment Certificate	The download should be placed successfully	As expected	Pass	

Post Condition: User successfully downloaded the assessment.

Project Name: Income Tax Return Assessment			Test Designed by: Sadia Afroz Shuprova		
Test Case ID: LW_1			Test Designed date: 05/09/2024		
Test Priority: Medium			Test Executed by:		
Module Name: Update lawyer information			Test Executed date:		
Test Title: verify if the lawyer can successfully update the information					
Description: Test the update info page					
Precondition (If any): User must login					
Test Steps	Test Data	Expected Results	Actual Results		Status (Pass/Fail)
1. Login 2. Click Profile 3. Insert new information 4.Click update button	Personal Information (Name, ID, Password)	The user should be able to update information.	As expected		Pass
Post Condition: Lawyer successfully updated the personal information.					

Project Name: Income Tax Return Assessment			Test Designed by Sadia Afroz Shuprova		
Test Case ID: LW_2			Test Designed date: 05/09/2024		
Test Priority: Medium			Test Executed by:		
Module Name: Lawyer Calculate Tax			Test Executed date:		
Test Title: verify if the lawyer can pay taxes of clients					
Description: Test the assessment calculation					
Precondition (If any): Lawyer must accept client request					
Test Steps	Test Data	Expected Results	Actual Results		Status (Pass/Fail)

1. Login 2. Accept request 3. Calculate tax 4.Click calculate button	Asset Information	The lawyer should be able to calculate tax.	As expected	Pass

Post Condition: Lawyer successfully calculated the tax assessment.

Project Name: Income Tax Return Assessment	Test Designed by: Sadia Afroz Shuprova
Test Case ID: LW_3	Test Designed date: 05/09/2024
Test Priority: Medium	Test Executed by:
Module Name: Update lawyer information	Test Executed date:
Test Title: verify if the lawyer can successfully update the information	
Description: Test the update info page	
Precondition (If any): User must login	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Login 2. Click Profile 3. Insert new information 4.Click update button	Personal Information (Name, ID, Password)	The user should be able to update information.	As expected	Pass

Post Condition: Lawyer successfully updated the personal information.

Project Name: Income Tax Return Assessment	Test Designed by: Sadia Afroz Shuprova
Test Case ID: LW_4	Test Designed date: 05/09/2024
Test Priority: High	Test Executed by:
Module Name: Submit tax assessment	Test Executed date:
Test Title: verify if the lawyer can successfully submit the assessment	
Description: Test the submission page	
Precondition (If any): Lawyer must calculate tax	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click Calculate tax 2. Click submit button	Tax calculation	The lawyer should be able to submit tax.	As expected	Pass

Post Condition: Lawyer successfully submitted tax assessment.

Project Name: Income Tax Return Assessment			Test Designed by: MD. Hasibul Hassan	
Test Case ID: TO_1			Test Designed date: 05/09/24	
Test Priority: High			Test Executed by:	
Module Name: Tax official Profile			Test Executed date:	
Test Title: verify the tax officials home page (homepage will display list of clients)				
Description: Test Tax officials homepage				
Precondition (If any): Tax officials should login successfully				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Login using username and password 3. Enter homepage	1. Username 2. Password	1. Tax official's homepage will display a list of clients request for verification purpose. 2. Queries from clients will be shown on the notification icon. 3. Verify/Block option will be available beside the request.	As expected	Pass

Post Condition: Users are validated with database for Tax Officials and successfully login to their account. Tax Officials will have the access to block Client's database.

Project Name: Income Tax Return Assessment			Test Designed by: MD. Hasibul Hassan	
Test Case ID: TO_2			Test Designed date: 05/09/24	
Test Priority: Medium			Test Executed by:	
Module Name: Update Profile			Test Executed date:	
Test Title: verify the Users can update their information				
Description: Test the Profile icon				
Precondition (If any): Tax officials should login successfully				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click the Profile icon 2. Enter Update Profile Page	userID, Password	1. Profile information will be displayed	As expected	Pass

		2. User should be able to change/update information example: name, Password. 3. User can setup privacy settings		
Post Condition: Database for Tax officials will be updated successfully. Updated information will be shown on the profile as well.				

Project Name: Income Tax Return Assessment			Test Designed by: MD. Hasibul Hassan	
Test Case ID: TO_3			Test Designed date: 05/09/24	
Test Priority: Medium			Test Executed by:	
Module Name: Answer Queries			Test Executed date:	
Test Title: verify the queries are displayed on Tax official's homepage				
Description: Test notification icon				
Precondition (If any): Clients should send queries to the Tax Officials.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click the notification icon 2. Enter the notification page	Queries sent from clients	1. List of queries from client's will be shown. 2. User can answer queries by writing on the answer box	As expected	Pass
Post Condition: Answered queries will be sent to the specific client. Unanswered queries will be stacked.				

Project Name: Income Tax Return Assessment			Test Designed by: MD. Hasibul Hassan	
Test Case ID: TO_4			Test Designed date: 05/09/24	
Test Priority: High			Test Executed by:	
Module Name: Verify Clients request			Test Executed date:	
Test Title: Clients Verification Request				
Description: Test Verification Process				
Precondition (If any): Clients should request for verification				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click the notification icon 2. Enter the notification page	1. Requests sent from client for verification. 2. Uploaded documents of clients	1. After accepting request, Client's information will be available to the Income Tax Official.	As expected	Pass

		2. User will verify the assets documents of the clients. 3. Users will verify tax assessment and provide assessment certificate. 4. Users will verify Phases of Track Assessment		
Post Condition: Verified request will be cleared from the homepage list. Required assessments certificates/approval will be sent to required clients.				