



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: <i>Analyze</i> 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: <i>Explain</i> 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]	
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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.

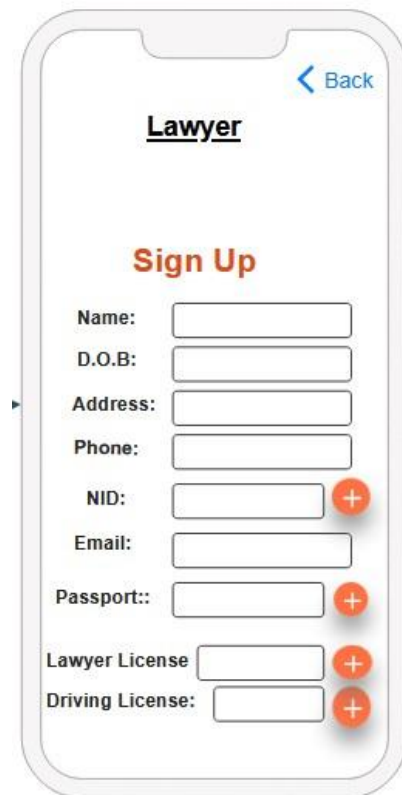
Design of UI/UX: This section is divided in Five parts which is developed by five members of our team.
(First Part)

This is Home Page



Log in page

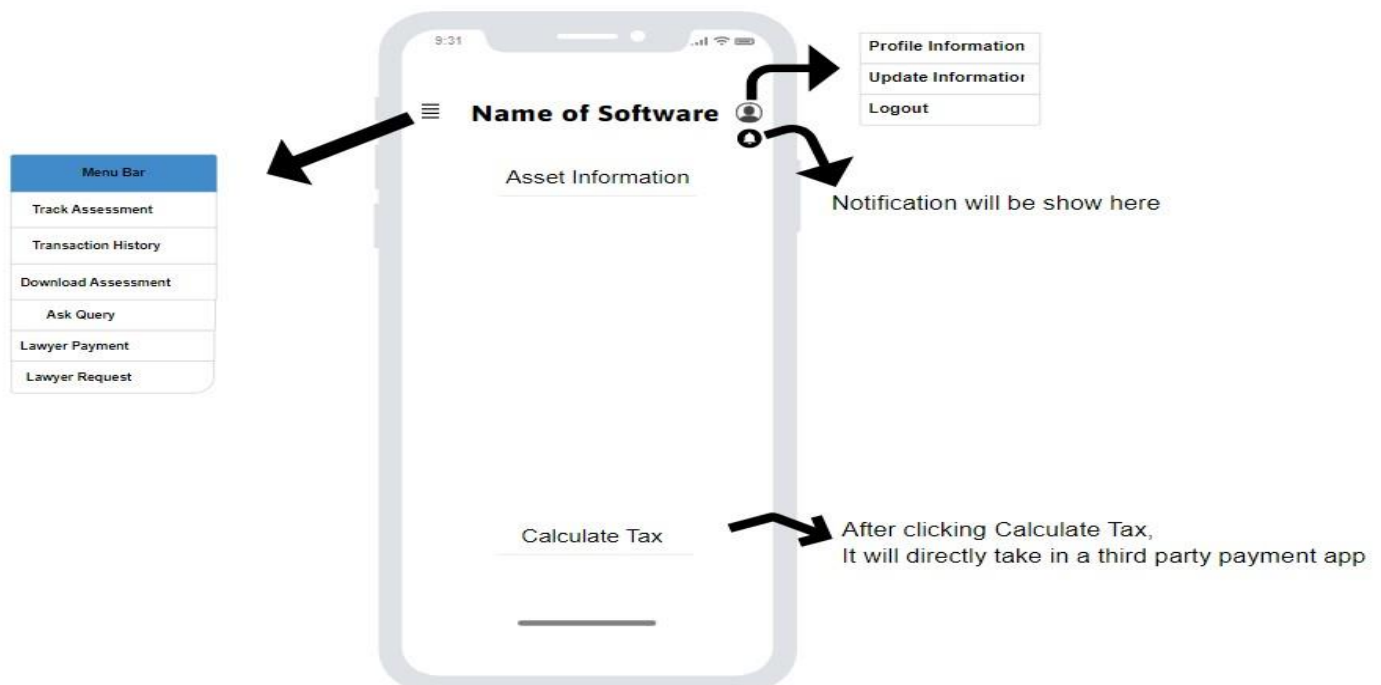


Lawyer Sign up page


Lawyer Sign up page mobile app interface. The page has a blue header with a back arrow and the text "Lawyer". Below the header is a red "Sign Up" title. The form contains the following fields: Name, D.O.B, Address, Phone, NID (with a red plus icon), Email, Passport (with a red plus icon), Lawyer License (with a red plus icon), and Driving License (with a red plus icon).

Taxpayer Sign up page


Taxpayer Sign up page mobile app interface. The page has a blue header with a back arrow and the text "Tax Payer:". Below the header is a red "Sign Up" title. The form contains the following fields: Name, D.O.B, Address, Email, Phone, NID (with a red plus icon), TIN (with a red plus icon), Passport (with a red plus icon), and Driving License (with a red plus icon).

(Second Part) Taxpayer log in default page

Profile option sub menu: (profile update)



9:31

≡ Name of Software

Profile Update

Update User ID

New Password

Old Password

Update

This is a mobile app screen for profile updates. It features a header with a hamburger menu icon, the text 'Name of Software', and a user profile icon. Below the header is a 'Profile Update' button. The main content area contains three input fields labeled 'Update User ID', 'New Password', and 'Old Password'. At the bottom, there is an 'Update' button.

Profile option sub menu: (Information Update)



9:31

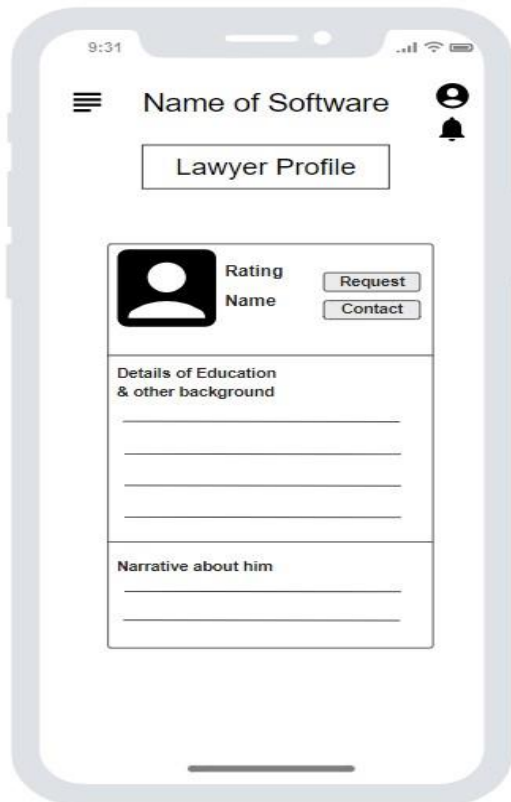
≡ Name of Software

Personal Information :

Asset Information :

Update

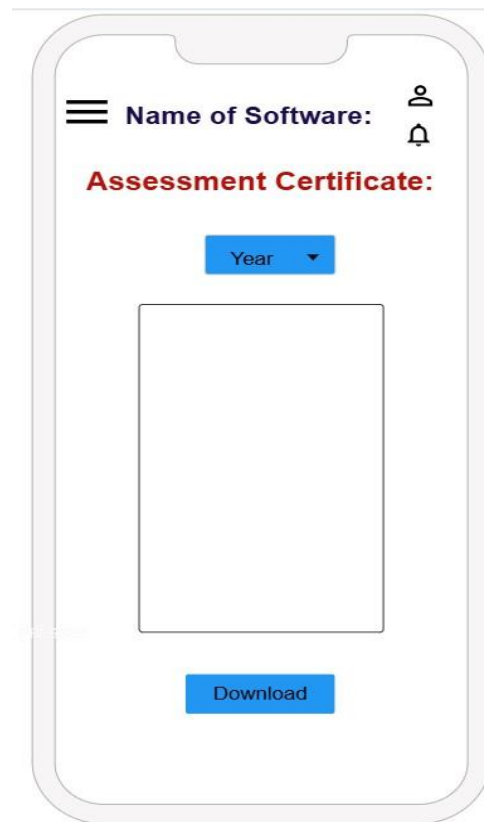
This is a mobile app screen for updating personal and asset information. It features a header with a hamburger menu icon, the text 'Name of Software', and a user profile icon. Below the header is a 'Personal Information :' section with four input fields. Below that is an 'Asset Information :' section with four input fields. At the bottom, there is an 'Update' button.



The image shows a mobile app interface for a 'Lawyer Profile'. At the top, there is a status bar with the time '9:31' and signal indicators. Below this is a header with a hamburger menu icon, the text 'Name of Software', and a user profile icon with a bell notification icon. A button labeled 'Lawyer Profile' is centered below the header. The main content area is divided into three sections. The first section contains a placeholder for a profile picture, a 'Rating' label, a 'Name' label, and two buttons: 'Request' and 'Contact'. The second section is titled 'Details of Education & other background' and contains five horizontal lines for text input. The third section is titled 'Narrative about him' and contains two horizontal lines for text input.

Lawyer Profile

(Third Part) Assessment Certificate



The image shows a mobile app interface for an 'Assessment Certificate'. At the top, there is a status bar with the time '9:31' and signal indicators. Below this is a header with a hamburger menu icon, the text 'Name of Software:', and a user profile icon with a bell notification icon. The main content area is divided into three sections. The first section is titled 'Assessment Certificate:' in red text. The second section contains a blue button labeled 'Year' with a dropdown arrow. The third section is a large empty rectangular box. At the bottom, there is a blue button labeled 'Download'.

Default log in page for Lawyer:

Client personal Info

personal 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% + [Icons]

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

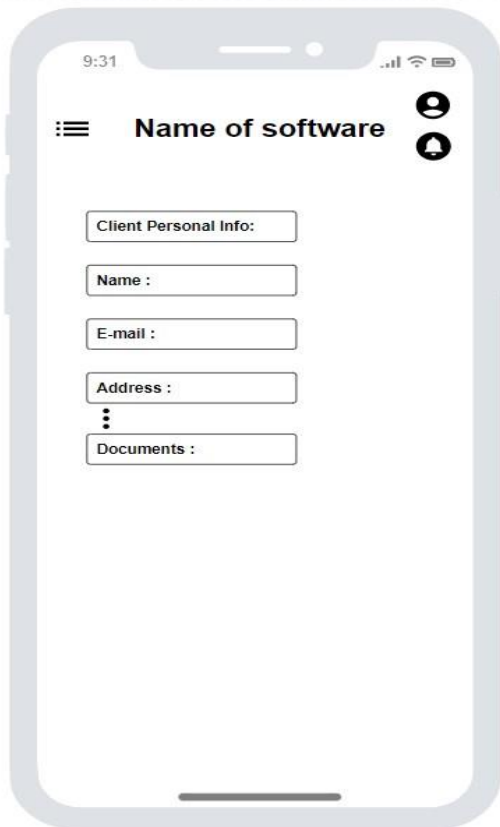
Want to know more?

or [Live consultancy](#)

Send

(Fourth & Fifth Part)

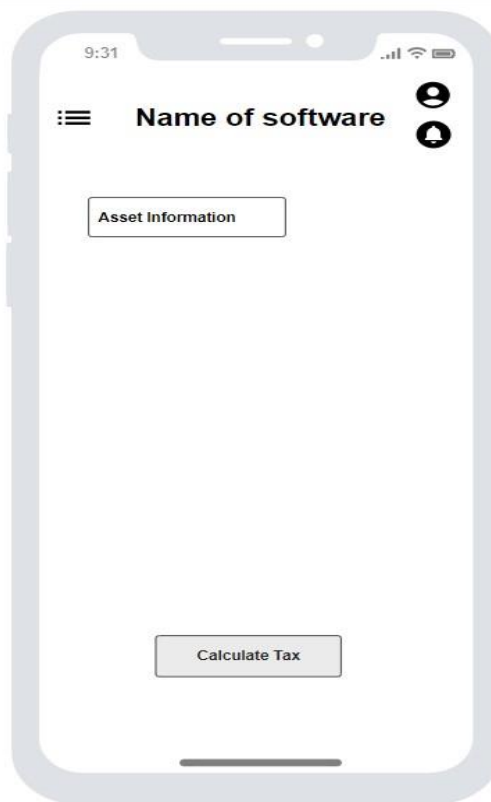
Client personal Info: (Lawyer)



A mobile app interface for a lawyer's client personal information. The screen shows a header with a hamburger menu icon, the text "Name of software", and two profile icons. Below the header, there is a section titled "Client Personal Info:" followed by five input fields: "Name :", "E-mail :", "Address :", a vertical ellipsis, and "Documents :".

Profile Update: (Lawyer)

Client Assessment Info:



A mobile app interface for a lawyer's client assessment information. The screen shows a header with a hamburger menu icon, the text "Name of software", and two profile icons. Below the header, there is a section titled "Asset Information" followed by a large empty space. At the bottom of the screen, there is a button labeled "Calculate Tax".

Information update: (Lawyer)

A mobile app screen for profile update. At the top, there is a header bar with a hamburger menu icon on the left and a lock and notification bell icon on the right. Below the header, the text "NAME OF SOFTWARE" is centered. The main content area contains a "PROFILE UPDATE:" label, followed by three input fields: "ADD NEW EMAIL", "NEW PASSWORD", and "OLD PASSWORD". At the bottom, there is an "EDIT" button.

Client Issues: (Lawyer)

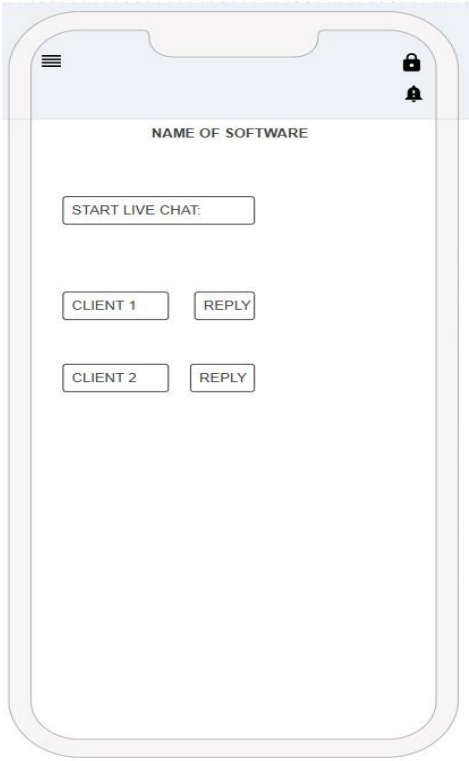
A mobile app screen for submit client tax. At the top, there is a header bar with a hamburger menu icon on the left and a lock and notification bell icon on the right. Below the header, the text "NAME OF SOFTWARE" is centered. The main content area contains a "PERSONAL INFORMATION" label, followed by three horizontal lines representing input fields. Below these is a "LEGAL DOCUMENTS" label, followed by three horizontal lines representing input fields. At the bottom, there is an "UPDATE" button.

Submit Client Tax: (Lawyer)

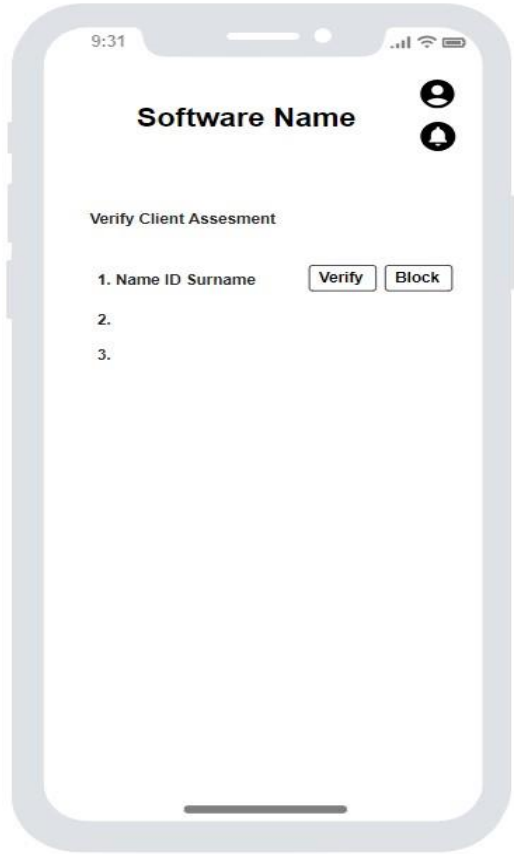
A mobile app screen for client issues. At the top, there is a header bar with a hamburger menu icon on the left and a lock and notification bell icon on the right. Below the header, the text "Name of Software" is centered. The main content area contains two input fields: "ADD NEW DOCUMENTS" and "CHANGE LEGAL DOCUMENTS". At the bottom, there is a "VIEW" button.

A mobile app screen for submit client tax. At the top, there is a header bar with a hamburger menu icon on the left and a lock and notification bell icon on the right. Below the header, the text "NAME OF SOFTWARE" is centered. The main content area contains two input fields: "CLIENT ASSESSMANT" and "CALCULATED TAX". At the bottom, there are two buttons: "BACK" and "SUBMIT".

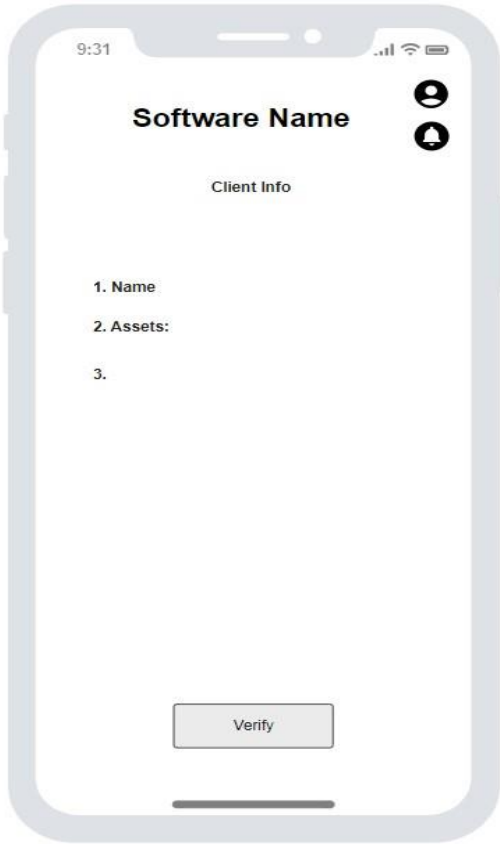
Works as a virtual Lawyer



Tax Official (After a successful login)



(Verification page)



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
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	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
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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
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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:		

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 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.				

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.