

Requirement Report

on

Arth Shikshan FinTech Simulator

By

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Submitted to: Dr. Prachi Kulkarni

Submitted On: 4 September 2023

1. Introduction

1.1 Purpose of the Document:

The purpose of this document is to analyse the Arth Shikshan FinTech Simulator website and to list down its user, functional, content and technical requirements. The purpose of listing these requirements is to make the product easy to understand, modify and make it traceable, complete and consistent.

1.2 Project Overview:

Arth Shikshan is a FinTech Simulator website which aims to induce financial education among people through simulations related to finance. By providing interactive and immersive simulations related to various aspects of finance, Arth Shikshan aims to empower users with practical knowledge and skills to make informed financial decisions. Unlike traditional educational approaches, Arth Shikshan offers a safe environment where users can learn about finance without the risk of losing actual money.

1.3 Scope of the Project

The scope of Arth Shikshan encompasses a wide range of functionalities, features and content which helps it achieve its goal of financial literacy and financial freedom. The website has simulations for paying bills, online shopping, fund transfers to name a few. It also contains educational videos in 5 different languages (English, Hindi, Marathi, Gujarati and Telegu). Lastly, it consists of a certification course which can be achieved by watching few videos and taking a questionnaire on it. Even though it provides a lot of financial functionalities, it is yet to provide the feature of stock markets and investments.

2. Functional Requirements

2.1 Home Page

- The home page has the general information about the Arth Shikshan FinTech simulator. It provides the user access to videos in 5 different languages (English, Hindi, Marathi, Gujarati and Telegu).
- The page also features an “About Us” section, highlighting the scope of the website.
- It also has a “Resources” tab which directs the user to a blog and news & events section where different posts are highlighted. This section also provides a “Contact Us” form.
- Lastly, the Home Page has a login tab with functionalities for both a new user and an existing user. The login tab has a feature to retrieve forgotten password. It also provides the options to login through email or phone number and also the feature of Banking Correspondent login.

2.2 User Registration and Authentication

- Users are able to register as a new user by providing a unique username and a password.
- The feature to see the password is also provided.
- Users are able to log in using their login credentials.
- The system ensures that the security of the login credentials and prevents unauthorized access.

2.3 Main Dashboard

- After logging in, the user is redirected to the Dashboard page, where a quick access to multiple functionalities is provided.
- The user is provided with the facility of update his profile by clicking their user icon. Updating the profile allows the user to edit his personal details and change their password. The profile page also lets the user to logout of their account.
- The Main Dashboard also has six buttons:
 - **Arth Shikshan Certificate:** The user has two options, first to watch videos, which are provided as links redirecting the user to YouTube. The second option lets the user take a quiz with difficulties “Easy” and “Intermediate”.
 - **Online Shopping:** This button redirects the user to the Online Shopping dashboard. The details of this dashboard are elaborated later in this document.
 - **Bill Payment:** This button redirects the user to the Bill Payment dashboard. The details of this dashboard are elaborated later in this document.
 - **Net Banking Login, Fund Transfer, Register a Payee:** All the other buttons redirect the user to the Net Banking Login, where the user has to provide his login credentials. By providing the correct login credentials, the user is redirected to the Net Banking dashboard. The details of this dashboard are elaborated later in this document.

2.4 Online Shopping Dashboard

2.4.1 Product Pages

- The Shopping Dashboard displays the product offers on the top of the screen with other product categories listed below.
- There are 4 categories – Men’s Wear, Kitchen Appliances, Electronics and Sports. Each of the categories further expand to reveal different products, with its description, price and a “Shop Now” option.
- Clicking on the “Shop Now” option redirects the user to the product page, where the product description and ratings are displayed.
- The product pages also consist of an option to increase or decrease the quantity of the product.
- Lastly, once everything is selected, the user can click on the “Add to Cart” option and the product is added to the shopping cart displayed in the navigation menu.

2.4.2 Shopping Cart

- The shopping cart displays the list of products added to it along with their price and quantity. It also provides an option to delete the product if it is not needed.
- The total payable amount is displayed as well.
- It has a feature which allows the webpage to collect the address of the user so as to provide home delivery services, which is also displayed on the webpage.
- Lastly, by proceeding with the payment, there are 3 options presented for payment – Net Banking, Card Payment and UPI.
- Upon the completion of transaction, the shopping cart is emptied.

2.4.3 Payment Options

- **Net Banking:** Clicking on Net Banking redirects the user to the Net Banking login, which would be elaborated, further in the document.
- **Card Payment:** Clicking on Card Payment option redirects the user to the to a webpage where the user is asked to fill their Card Number, Card Holder Name, Expiry Date and CVV. Upon receiving the details, the user is directed to a confirmation page.
- **UPI:** Clicking on the UPI option, the user is prompted to enter their UPI ID.
- Once the details are entered, a confirmation page is shown. Clicking next, the user has to enter an OTP (given on the screen as this is a simulation). For the UPI option, the user has to provide the UPI pin to complete the transaction.
- Once the OTP is entered and verified, the user is directed to a “Payment Successful” page and the cart is emptied.

2.5 Bill Payment Dashboard

- To login to the Bill Payment Dashboard, the user must provide their login credentials.
- The Bill Payment Dashboard has 8 options, but only 3 options are operatable.

2.5.1 Electricity Bill

- There are 2 use cases – one for a new user and the other for a registered user.
- To register a new user, the dashboard inputs the consumer’s name, consumer number, subdivision and PC number.
- Once registered, the user is directed back to the previous page where the list of users will be updated.
- Now, the user can select the consumer and biller which redirects the user to a page which allows the user to enter a specific amount.
- Once the amount is mentioned and “Next” option is clicked, the user is redirected to a confirmation page. The details about the confirmation are mentioned further in the document.

2.5.2 Post-paid Mobile Recharge

- There are 2 use cases – one for a new user and the other for a registered user.
- To register a new consumer, the dashboard inputs the consumer's name, consumer mobile number, mobile operator circle and type of plan.
- Once registered, the user is directed back to the previous page where the list of users will be updated.
- Now, the user can select the consumer and mobile operator which redirects the user to a page which allows the user to enter a specific amount.
- Once the amount is mentioned and "Next" option is clicked, the user is redirected to a confirmation page. The details about the confirmation are mentioned further in the document.

2.5.3 Insurance Premium

- There are 2 use cases – register a new policy or update an existing policy.
- To register a new policy, the dashboard inputs the Policy Holder Name, Policy Number, Mobile No., Insurance Provider Name and Payment Mode.
- Once registered, the user is directed back to the previous page where the list of policies will be updated.
- Now, the user can select the policy which redirects the user to a page which allows the user to enter a specific amount.
- Once the amount is mentioned and "Next" option is clicked, the user is redirected to a confirmation page. The details about the confirmation are mentioned further in the document.

2.5.4 Confirmation Page

- Before completing the transaction through any method, the page is redirected to the confirmation page where the details are displayed for the user to confirm.
- If the user is unsatisfied with the details, they are redirected to the previous page.
- Otherwise, the payment is proceeded with the user redirected to a page where an OTP is required to be entered. Since this is a simulation, the OTP is not received on the phone but rather shown on the webpage itself.
- Once the OTP is entered, an E-receipt is displayed which can be downloaded by the user.
- Upon clicking the "Continue" option on the E-receipt page, the user is redirected back to the Bill Payment Dashboard.

2.5.5 Transaction Log

- The Bill Payment Dashboard also features a table below the options.
- The table is a transaction log with the following information: the type of bill payment, the service provider and consumer, the date of transaction, the amount of transaction and a “Repay” option which redirects the user to the respective recharge page with all the details already filled.
- The transaction log can be filtered in 4 different ways – Recent Transactions, Electricity, Mobile Recharge and Insurance Policy.

2.6 Net Banking Dashboard

- Upon clicking on Net Banking Login, Fund Transfer or Register a Payee options in the Main Dashboard, the user is required to sign in for the Net Banking login.
- The user can use the same credentials required for the Login page and this message is provided for the benefit of the user.
- The dashboard also visualizes the total balance of the user using a ring chart.
- As this is a simulation, there exists a feature to add money to the user’s account if in any case, it falls below ₹1000.
- The Net Banking Dashboard also features a variety of options in the Navigation Menu.

2.6.1 Register a Payee

- This option redirects the user to a simple form where the user is required to enter the following details – Payee Account Name, Nickname, bank Information and Payee Account Number (Only a 9-digit number is accepted, else the user is asked to enter the information again).
- After entering the required information, the user is directed to the confirmation page which will be further elaborated in the document.
- The user is then directed back to the Net Banking Dashboard.

2.6.2 Payment/Transfer

- This option allows the user to transfer funds to different accounts but within the same bank.
- The user directed to a simple form and is asked to fill the following details – the payment type, amount, receiver account and remarks.
- After entering the required information, the user is directed to the confirmation page which will be further elaborated in the document.
- The user is then directed back to the Net Banking Dashboard.

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- The user is then directed back to the Net Banking Dashboard.

2.6.3 Manage Beneficiary/Payee

- This option displays the registered beneficiaries and the payee data for the benefit of users for future transactions.
- Upon clicking the “Continue” option, the user is directed back to the Net Banking Dashboard.

2.6.4 UPI

- The UPI option provides the feature to register a UPI ID.
- Once the UPI ID is registered, the user can only reset the pin and not be able to edit the UPI details.
- To reset the pin, the user must first provide the last four digits of their card and the expiry date. Since, this is a simulation, the card is displayed on the screen itself.
- Then the user must verify using the OTP shown on the screen.
- Lastly, the user can reset the pin and confirm it. The new pin is validated to check whether it is correct.
- Once the new pin is set, the user is redirected to the UPI ID home screen and a message is displayed confirming that the user has reset the UPI pin.

2.6.5 Cheque

- The Cheque option open a webpage with a blank cheque which can be edited by the user.
- The user has to fill the date, payee name, amount of money to be transferred in both words and numbers.
- The cheque also provides an option to “cross-cheque” so that the user can understand the purpose of both the types.
- Once the cheque is filled, the user can preview it before proceeding.
- After proceeding further, the user is redirected to the Net Banking Dashboard.

2.6.6 Transaction Log

- The Net Banking Dashboard also features a table below the options.
- The transaction log can be filtered in 4 different ways – Bill Payment, Frequent Internet Transaction and Payee List.
- The table is updated whenever a transaction is made or a new payee is added.

2.7 Educational Content

- Arthshikshan provides a wide variety of video tutorials describing a multitude of financial aspects in 5 different languages.
- The videos are all open-source with their video links being provided in the Resources tab on the front page.
- The videos can be viewed in YouTube as well.

2.8 Arthshikshan Certification

- Arthshikshan also provides a certification course based on the Financial Literacy Awareness Videos which are provided by Arthshikshan itself.
- Before beginning the test, the user is asked to choose the language in which they wish to take the test. The test is available in 3 languages – English, Hindi and Marathi.
- Once the language is selected, the user is directed to a page where the syllabus along with the videos needed to take the test. The test is based only on these videos.
- After clicking “Start Test”, the user is introduced to a page where the instructions are given.
- Before the test begins, the user can select the level of hardness for the test. For the time being, only the beginner level test is open while the intermediate and hard level tests are being developed.
- The test consists of 20 multiple choice questions in 10 minutes.
- After answering all the questions, a page is visible which confirms that the user has answered all the questions.
- The user can then view all the answers and verify whether they were correct or not.
- If the user fails the test, a message appears displaying that the user has failed. It also provides an option to retake the test.
- If the user passes the test, a message appears displaying that the user has passed. It also provides the user with a link to download the certificate.
- An email is sent to the user’s registered email to notify them regarding the certificate.
- The user can then click the “Finish” button to redirect themselves to the Main Dashboard.

3. Non-Functional Requirements

3.1 Performance

- The system should load within 3 seconds for 95% of the users.
- The simulations respond to the users within 1 second.
- The system must handle concurrent usage of at least 1000 users without significant slowdown.

3.2 Usability

- The website is extremely easy to navigate and users with minimal knowledge about financial websites can also easily understand it.
- Since, it offers services in 5 different languages, it is easier for users with low or no knowledge of the English language. Additionally, it offers the user a sense of ease in their familiar language.
- The text and graphics are properly aligned and perfectly sized so that the users can properly view them irrespective of the device they run the website on.
- All the simulations are made simple with the use of guidelines in each step of the simulation.

3.3 Security

- User data and login credentials are secured and other users cannot access them.
- There exists multi-factor authentication for accessing all the dashboards.

3.4 Scalability

- The system has simple database requirement which can be scaled up without changing a lot.
- Video links can be updated easily without changing the system.
- Access can be updated for multiple users without needing to change the database requirements.

3.5 Compatibility

- The website is compatible on all sorts of devices and the dimensions of the elements in the website adjust according to the device the website is used on.
- The website also functions properly on different web browsers like Google Chrome, Microsoft Edge, Opera and Brave.

3.6 Maintainability

- The website is made in modular components, hence in the need of maintenance of one aspect of the website, the whole website need not be shut down and can work as before.

3.7 Privacy

- The user data and credentials are stored in the website's databases itself.
- The website also doesn't provide this data to any third-party users.
- It is also suggested by the website to give such login credentials that are not used by the user in their real accounts.

4. User Interface (UI) Design Requirements

4.1 Overall Look and Feel

- The website is designed specifically to look like different government websites used for bill payment and net banking.
- While the look of webpages like bill payment or net banking has a rusty look, the shopping dashboard has a sleek look to mirror websites like Amazon or Flipkart.
- Overall, the design looks welcoming and considering the different aspects of financial education it provides, it is necessary to familiarize the user with the designs of different website.

4.2 Layout and Navigation

- The layout of all the webpages in the system are consistent with a navigation menu at the top of the webpage and the logo on the top left corner.
- It also has proper navigation guides, highlighted in red, whenever required by the users.

4.3 Responsivity

- The system is extremely responsive for different aspect ratios, on mobile phones, tablets and even desktops.
- It maintains its integrity in both portrait and landscape mode on all the devices mentioned above.
- The elements of the website are responsive to both the changes in size of the device and the aspect ratio.

4.5 Typography

- The fonts of the website are consistent throughout all the webpages of the website.
- The size of the words also matches and are consistent for different headers and the main text body of the application.

4.6 Colour Scheme

- The colour scheme of all the webpages in the website is consistent with subtle shades of orange, grey and white.
- This colour scheme matches that of the government websites that Arthshikshan aims to mirror, which familiarises the user when performing actual transactions.

4.7 Icons and Imagery

- The icons used for denoting different financial utilities are minimalistic and monochromatic which allows them to be subtle enough for the user to not get too distracted by them yet provide the visual aids, so that users need not read the entire option.

4.8 Localization

- The main aim of Arthshikshan FinTech Simulator is to make financial services available to users in their local languages.
- As a result, the system provides all the services in 5 different languages catering to most of the users all across the nation.

5. Risks and Mitigations

5.1 Technical Challenges

- **Risk**: The development team may encounter technical challenges or limitations when implementing complex simulations and interactive features.
- **Mitigation**: Conduct a thorough technical feasibility assessment before the project starts. Engage experienced developers and provide access to necessary resources and tools. Establish a clear communication channel to address technical issues promptly.

5.2 User Engagement

- **Risk**: Low user engagement could lead to limited use of the website, impacting its effectiveness.
- **Mitigation**: Implement user engagement strategies, such as gamification elements, regular content updates, and a community forum for user interaction. Continuously gather user feedback and make improvements based on it.

5.3 Security Breaches

- **Risk**: Unauthorized access, data breaches, or security vulnerabilities could compromise user data and the website's reputation.
- **Mitigation**: Implement robust security measures, including encryption, authentication, and regular security audits. Educate users on best security practices, such as strong password policies. Have a plan in place for responding to security incidents.

5.4 Software Updates

- **Risk**: Changes or updates in the technology stack used for development could lead to compatibility issues.
- **Mitigation**: Staying informed about technology updates and planning for regular system maintenance and updates is necessary. Maintaining documentation is another factor to facilitate smooth transitions when updates are required.

5.5 Scalability Issues

- **Risk**: Rapid growth in user traffic can strain the website's infrastructure which can lead to performance issues.
- **Mitigation**: Scaling the website through the use of cloud resources can help. Load testing can be conducted from time to time to identify potential bottlenecks. Monitoring the website regularly will also be required.

5.6 Content Quality

- **Risk**: Low-quality or outdated content might diminish the website's value and hinder user experience.
- **Mitigation**: Reviewing and updating the content of the website regularly is a good way to ensure that the website always has the latest content.

5.7 Competition

- **Risk**: Competing websites designed for financial education might affect user adoption.
- **Mitigation**: By continuously accessing the website and highlighting its unique features will help to reduce this risk.

Every risk mentioned above should be accessed and monitored throughout the project's lifecycle to ensure the website's success and sustainability.

6. Conclusion

In conclusion, this document highlights the functional and non-functional requirements of the Arthshikshan FinTech Simulator website. This document also aims to highlight the user interface and database requirements. Lastly, it throws light upon the risks that may occur while maintaining the website.