Software Requirements Specification (SRS)

1. Introduction

1.1 Purpose

The purpose of this Software Requirements Specification (SRS) document is to provide a detailed and comprehensive description of the functional and non-functional requirements for the Income Tax Return Assessment Software. The software is intended to facilitate the income tax return filing process for individual taxpayers and authorized personnel, such as lawyers and chartered accountants.

1.2 Scope

This software will provide functionalities such as user registration, login, logout, data verification, tax calculation, tax submission, document upload, payment integration, and electronic filing of tax returns. The primary objective is to ensure a secure, efficient, and user-friendly experience that complies with local tax laws and regulations.

1.3 Definitions, Acronyms, and Abbreviations

- SRS: Software Requirements Specification

- NID: National Identification Number

- SSL: Secure Socket Layer

- UI: User Interface

- UX: User Experience

- OTP: One-Time Password

1.4 References

- GoSimpleTax: A UK-based software solution offering a user-friendly interface and e-filing capabilities.

- TaxCloud India: A cloud-based online Income Tax Return filing software used by tax consultants and chartered accountants.

- TaxAct: A US-based software solution offering a range of tax filing options, including free federal filing for those who qualify.

- Winman Software: A popular software solution for Chartered Accountants in India, offering income tax software, IT return, and e-filing capabilities.

- IRIS Software Group Ltd: A UK-based software solution offering a range of tax filing options, including e-filing and audit support.

1.5 Overview

The document is structured to provide a detailed description of the overall system, specific functional and non-functional requirements, and project requirements. The SRS ensures that all stakeholders have a clear understanding of the system’s capabilities and constraints.

2. Overall Description

2.1 Product Perspective

The Income Tax Return Assessment Software is an independent system designed to simplify the tax return filing process. It will integrate with government databases for verification and ensure secure transactions. The software draws inspiration from established solutions like GoSimpleTax and IRIS Software Group Ltd to provide a user-friendly and efficient experience.

2.2 Product Functions

The main functions of the software include:

- User Registration: Allows new users to register by providing necessary details such as name, date of birth, address, email, phone number, and NID.

- User Login: Enables users to log in using their username and password, with verification against database records.

- User Logout: Allows users to log out from their account.

- Data Verification: Verifies user details against government databases.

- Tax Calculation: Calculates tax liabilities based on the provided financial information.

- Tax Submission: Allows users to submit their tax returns electronically.

- Document Upload: Enables users to upload supporting documents.

- Payment Integration: Facilitates online payment of taxes.

- Security Measures: Implements features like account lock, OTPs, and encryption to enhance security.

- E-filing: Facilitates the electronic filing of tax returns.

- Notification System: Sends notifications and reminders to users about important dates and updates.

2.3 User Characteristics

- Taxpayers: Individuals who need to file their income tax returns using their NID.

- Authorized Personnel: Lawyers and chartered accountants with valid licenses who assist taxpayers in filing their returns.

2.4 Constraints

- The system must comply with local tax laws and regulations to ensure legality and accuracy.

- Development tools and environments must be specified, such as using Selenium for testing.

- The software should support SSL encryption for secure data transactions.

- The software should be compatible with commonly used web browsers.

2.5 Assumptions and Dependencies

- Users must have access to the internet to use the software.

- The software relies on integration with government databases for data verification.

- The software should be compatible with commonly used web browsers.

- Users must have basic knowledge of using web-based applications.

3. Specific Requirements

3.1 Functional Requirements

1. User Registration

- Taxpayer Registration:

- The system shall allow the taxpayer to provide their first name and last name as per their NID.

- The system shall allow the taxpayer to provide their date of birth.

- The system shall allow the taxpayer to provide their address.

- The system shall allow the taxpayer to provide their email.

- The system shall allow the taxpayer to provide their phone number.

- The system shall allow the taxpayer to enter their NID number.

- The system shall send a verification email to the user’s provided email address.

- Priority Level: High

- Authorized Personnel Registration:

- The system shall allow authorized personnel to register using their lawyer license ID.

- The system shall allow the authorized personnel to provide their name, email, and contact number.

- The system shall verify the lawyer license ID with the relevant regulatory body.

- Priority Level: High

2. User Login

- Login Functionality:

- The system shall allow users to log in with their given username and password.

- The login credentials (username and password) will be verified with database records.

- If the login is successful, the home page of the user account will be displayed.

- If the username and/or password is incorrect, a random verification code (OTP) will be generated and sent to the user’s email address to retry login.

- If the number of login attempts exceeds its limit (3 times), the system shall block the user account login for one hour.

- Priority Level: High

- Precondition: User must have a valid user ID and password.

- Cross-references: Sections 4.1, 7.2

3. User Logout

- The system shall allow users to log out from the software anytime after a successful login.

- Priority Level: Medium

4. Tax Calculation

- The system shall provide a tax calculator to estimate tax liabilities based on user-provided financial information.

- The system shall support different types of income (e.g., salary, business income, capital gains).

- The system shall apply relevant deductions and exemptions as per tax laws.

- Priority Level: High

5. Tax Submission

- The system shall allow users to submit their completed tax returns electronically.

- The system shall generate a summary of the tax return for user review before submission.

- The system shall confirm submission and provide a reference number.

- Priority Level: High

6. Document Upload

- The system shall allow users to upload supporting documents (e.g., Form 16, investment proofs).

- The system shall support common file formats (e.g., PDF, JPEG).

- The system shall verify the uploaded documents for completeness.

- Priority Level: Medium

7. Payment Integration

- The system shall integrate with payment gateways to facilitate online tax payments.

- The system shall support multiple payment methods (e.g., credit/debit cards, net banking).

- The system shall confirm payment and provide a transaction receipt.

- Priority Level: High

8. Notification System

- The system shall send email notifications for important updates (e.g., submission confirmation, payment receipt).

- The system shall send reminders for upcoming deadlines.

- Priority Level: Medium

3.2 Non-Functional Requirements

- Usability:

- The system shall be intuitive and easy to navigate, requiring minimal training for users.

- A trained user shall be able to submit a complete tax return request within an average of ten minutes.

- Priority Level: High

- Performance:

- The system shall respond to user actions within two seconds to ensure a seamless experience.

- The system shall handle up to 1000 concurrent users during peak filing periods.

- Priority Level: High

- Security:

- The system shall use SSL for all transactions to protect user data.

- All passwords must be encrypted in the database to prevent unauthorized access.

- The system shall implement two-factor authentication (2FA) for additional security.

- Priority Level: High

- Reliability:

- The system shall have an uptime of 99.9% during tax season (January to April) to ensure availability.

- The system shall provide data backup and recovery mechanisms.

- Priority Level: High

- Compatibility:

- The system shall be compatible with major web browsers (e.g., Chrome, Firefox, Safari).

- The system shall support mobile and tablet devices for ease of access.

- Priority Level: Medium

- Scalability:

- The system shall be designed to scale easily to accommodate increased user load.

- The system architecture shall support horizontal scaling.

- Priority Level: Medium

3.3 Project Requirements

- Tools:

- The system developer needs Selenium tools to perform testing activities in week 6.

- The development team shall use JIRA for project management and issue tracking.

- Priority Level: High

- Development Environment:

- Development shall be done using the latest version of the specified programming language (e.g., Python, Java).

- The development environment shall include integrated development environments (IDEs) like PyCharm or IntelliJ IDEA.

- Priority Level: Medium

- Regulatory Compliance:

- The system must

Comply with local tax laws and data protection regulations to ensure legality and accuracy.

- The system shall adhere to GDPR (General Data Protection Regulation) for users in the EU.

- Priority Level: High

4. Appendices

Appendix A: Glossary

- SRS: Software Requirements Specification

- NID: National Identification Number

- SSL: Secure Socket Layer

- UI: User Interface

- UX: User Experience

- OTP: One-Time Password

- 2FA: Two-Factor Authentication

- IDE: Integrated Development Environment

- GDPR: General Data Protection Regulation

Appendix B: References

- GoSimpleTax: A UK-based software solution offering a user-friendly interface and e-filing capabilities.

- TaxCloud India: A cloud-based online Income Tax Return filing software used by tax consultants and chartered accountants.

- TaxAct: A US-based software solution offering a range of tax filing options, including free federal filing for those who qualify.

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This comprehensive SRS document ensures that all necessary requirements are detailed and evaluated, guiding the development team towards a successful implementation of the Income Tax Return Assessment Software.