**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 15 April 2025 |
| Team ID | SWTID1743870576 |
| Project Name | SpendSmart: Your Personal Finance Companion |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration via Email Registration via Google (optional/future) Password encryption and validation |
| FR-2 | User Login | Login via Email JWT-based session management Forgot Password/Reset (optional/future) |
| FR-3 | Transaction Management | Add income/expense entry Edit/Delete transactions Categorize transactions (e.g., Food, Travel, Rent) Attach notes to transactions (optional/future) |
| FR-4 | Dashboard & Financial Summary | View monthly/overall summary See total income, expenses, and balance Recent transactions list |
| FR-5 | Data Visualization | Pie chart for category-wise spending Bar/line chart for monthly trends Interactive chart filtering |
| FR-6 | Search & Filter | Search transactions by keyword Filter by date, category, or amount |
| FR-7 | User Profile | View and update profile details Change password Delete account (optional/future) |
| FR-8 | Notifications (optional/future) | Email or in-app reminders to log expenses Monthly summary notifications |
| FR-9 | Responsive Design | Optimized for desktop and mobile Consistent experience across devices |
| FR-10 | Security | JWT authentication Secure password storage Input validation and error handling |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | Usability | The UI should be clean, intuitive, and fully responsive for both desktop and mobile users. |
| NFR-2 | Security | Data encryption, secure JWT authentication, and secure password storage to protect user financial data. |
| NFR-3 | Reliability | Ensure data accuracy and integrity with robust backend validation and regular database backups. |
| NFR-4 | Performance | Fast API response times (<2 seconds), efficient data rendering, and optimized dashboard/chart loading. |
| NFR-5 | Availability | 99.9% uptime with cloud deployment and auto-scaling to handle user traffic. |
| NFR-6 | Scalability | Support for thousands of concurrent users and transactions, with modular architecture for future growth. |