

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	14 October 2022
Team ID	PNT2022TMID53057
Project Name	Project – Personal Expense Tracker
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through App's UI that is connected to IBM DB2.
FR-2	User Login	Login through App's UI that is connected to IBM DB2.
FR-3	User Confirmation	Confirmation via Email using Sendgrid.
FR-4	User Balance Initialization	Initialization of user balance through App's UI that is connected to DB2.
FR-5	Add an expense	Obtain details through App's UI and insert the same in IBM DB2.
FR-6	Modify an expense	Obtain details through App's UI and update the same in IBM DB2.
FR-7	Create a category of expenses	Obtain details of category and insert the same in IBM DB2. Used to render the list of categories while adding/modifying an expense.
FR-8	Summary of expenses	Summarize expenses in a particular time period as per the user's request. Summarize expenses in a selected category. Display analytics of the expenses in a visual form.
FR-9	Monthly expenditure limit	User may set a monthly limit and will be alerted through Sendgrid when expenditure exceeds the limit.
FR-10	Add a periodic expense.	User defines an expense to be made periodically. User is alerted to pay the expense through Sendgrid. Obtain details such as time period and amount through App's UI and insert the same in IBM DB2.
FR-11	Add a delayed expense.	User defines an expense to be made after a fixed amount of time. User is alerted to pay the expense through Sendgrid. Obtain details such as time period and amount through App's UI and insert the same in IBM DB2.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	User-friendly UI with internationally recognized icons and colours that go easy on the eye. Highly responsive and error-friendly.

NFR-2	<b>Security</b>	User information such as login information and expense data are stored securely in the cloud. Access to IBM DB2 is purely restricted to developers.
NFR-3	<b>Reliability</b>	All transactions are independent follow the ACID properties.
NFR-4	<b>Performance</b>	Near instantaneous retrieval of information/services requested by the user.
NFR-5	<b>Availability</b>	Application is available 24/7 provided the user has Internet access.
NFR-6	<b>Scalability</b>	Since this is a cloud-based application, CPU time is supplied on demand.