

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

Date	03 October 2022
Team ID	PNT2022TMID53170
Project Name	AI based discourse for Banking Industry
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	Ways to approach the chatbot	It should also have predefined questions and keywords with their expected answers.
FR-2	Handling complex dialogues	It should be able to identify the intent of a question to provide an accurate answer and suggest options to confirm or resolve the issue.
FR-3	User Registration	It should allow unregistered users to register on the application and save their details to the database.
FR-4	User Confirmation	It should be able to provide confirmation notifications through either SMS or email.
FR-5	User login	Registered users should be able to login. Once login details are submitted to the database the user will be presented with a QR code implemented through Google's Two-Factor Authentication and then a unique code will be generated and sent to the user's mobile device.
FR-6	Getting information	The chatbot must allow users to view information about accounts held by them i.e. savings, loans, current account.
FR-7	Getting transaction details	The chatbot must allow users to view their transactions through a transaction statement sent to the users email.
FR-8	Assisting Users	The chatbot should be able to assist users with their queries and carry out appropriate actions such as scheduling appointments with finance consultants.
FR-9	Conversing with the user	The users should be able to converse with the chatbot through voice or text commands and it should understand what the user is saying with the help of natural language processing.
FR-10	Maintaining conversational state	The chatbot should be able to maintain the conversational state when the context may be unclear through previous messages and conversations.

FR-11	Providing responses	The chatbot must be able to provide text and audio responses.
-------	---------------------	---

### Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The user should have prior knowledge as to how to use a conversational interface and what it is used for.
NFR-2	<b>Security</b>	The connection between the Web API and the programs should use HTTPS for security.
NFR-3	<b>Reliability</b>	The chatbot must perform without failure in 99% of the use-cases.
NFR-4	<b>Performance</b>	It should be simple, to-the-point information retrieval process
NFR-5	<b>Availability</b>	The chatbot must be available to the users 24/7.
NFR-6	<b>Scalability</b>	Multiple users must be able to use the chatbot at the same instant
NFR-7	<b>Portability</b>	The chatbot must be able to perform well in all environments (i.e. all operating systems and browsers).
NFR-8	<b>Compatibility</b>	Must support various versions of Android and iOS.
NFR-9	<b>Fast Response</b>	The average time for the server to respond, over the question testing set, should be less than or equal to 2 seconds.
NFR-10	<b>Ease of Use</b>	A new user will make less than 3 mistakes in 5 minutes after 5 minutes of use.
NFR-11	<b>Maintainability</b>	The Mean Time To Restore(MTTR) a system following a system failure shouldn't be greater than 10 mins.