

**ProjectDesignPhase-II**  
**SolutionRequirements(Functional&Non-functional)**

Date	08February2026
Team ID	LTVIP2026TMIDS66060
ProjectName	Intelligent SQLQuerying with LLMs Using Gemini Pro
MaximumMarks	4 Marks

**FunctionalRequirements:**

Followingarethefunctionalrequirementsoftheproposedsolution.

FR No.	FunctionalRequirement(Epic)	SubRequirement(Story/Sub-Task)
FR-1	UserRegistration& Authentication	Registrationthroughform,Gmaillogin,LinkedInlogin
FR-2	User Confirmation	Emailverification,OTPconfirmation
FR-3	NaturalLanguageQueryInput	UserentersnaturallanguagequestiontogenerateSQL
FR-4	LLM-basedSQLGeneration	GeminiProconvertsnaturallanguageinto schemaaware SQL query
FR-5	QueryValidation&Security	SQLsyntaxvalidation,
FR-6	Query Execution	ExecutegeneratedSQLqueryonconnecteddatabase
FR-7	ResultDisplay&Explanation	Displayqueryresultsandprovidesimpleexplanation
FR-8	QueryHistoryManagement	Storeandretrievepreviouslyexecutedqueries

**Non-functionalRequirements:**

Followingarethennon-functionalrequirementsoftheproposedsolution.

FR No.	Non-FunctionalRequirement	Description
NFR-1	<b>Usability</b>	User-friendlyinterfaceenablingnon-technicalusers to interact easily.
NFR-2	<b>Security</b>	Secureauthentication,encryptedcommunication, SQL injection prevention.
NFR-3	<b>Reliability</b>	AccurateSQLgenerationwithminimalfailurerate.
NFR-4	<b>Performance</b>	Fastresponsetimeforquerygenerationand execution.
NFR-5	<b>Availability</b>	Systemaccessible24/7withminimaldowntime.

NFR-6	<b>Scalability</b>	System capable of handling increasing number of users and large databases.
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