

## Project Design Phase

### Solu on Architecture

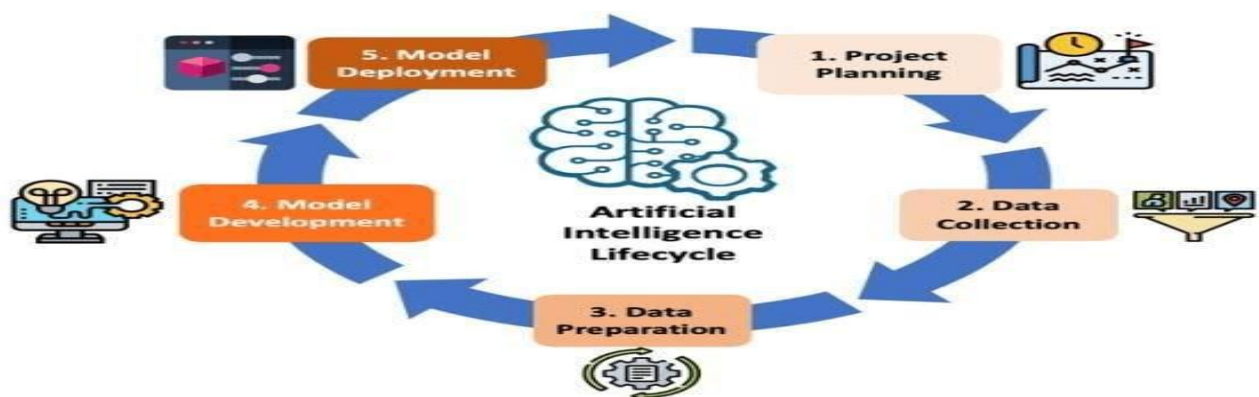
Date	03 August 2025
Team ID	LTVIP2025TMID59168
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	4 Marks

#### Solution Architecture:

Solution Architecture is a detailed, structured framework that defines how a system or application will meet specific business requirements through a combination of technology, design, and implementation strategies.

- In the SmartSDLC – AI Enhanced Software Development Lifecycle Project, the solution architecture defines how various AI-powered modules—such as the Requirement Classifier, Bug Fixer, and Code Generator—work together within a streamlined platform.
- This architecture also manages data flow, user interaction, and performance, ensuring the system is scalable, secure, and user-friendly. By aligning technical components with user needs, it helps deliver a cohesive, intelligent solution for automating the SDLC process.

#### Example - Solution Architecture Diagram:



Reference <https://www.researchgate.net/publication/378545816/figure/fig1/AS:11431281226334350@1709133251576/AI-Development-Life-Cycle.jpg>

