**Project Design Phase**

**Solution Architecture**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID29382 |
| Project Name | Smart SDLC-AI-Enhanced Software Development Life Cycle |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

1. Requirements Phase

Tools: Jira, Confluence

Outputs: User stories, technical specs

1. Design Phase

Tools: Lucidchart, draw.io

Outputs: Architecture diagrams, API specs

1. Development Phase

Tools: Git, VS Code, GitHub

Tech: Backend (e.g., Node.js, Spring), Frontend (React, Angular)

1. Testing Phase

Tools: Selenium, Junit, TestRail

Types: Unit, Integration, UAT, Automation

1. Deployment Phase

Tools: Jenkins, Docker, Kubernetes

Platforms: AWS, Azure, GCP

1. Maintenance Phase

Tools: Prometheus, Grafana, ELK, PagerDuty

Activities: Monitoring, bug fixing, updates

**Example - Solution Architecture Diagram:**

