

Technology Stack (Architecture & Stack)

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Team ID: LTVIP2025TMID32004

Project Name: SmartSDLC: AI-Enhanced Software Development Lifecycle

Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Web-based interaction	Streamlit
2	Application Logic	Code generation, bug fixing, testing	Python
3	AI Service Layer	Prompt handling, AI outputs	IBM Watsonx Granite 3.3
4	Session State	In-memory user data	Streamlit Session
5	File Storage	PDF uploads and static files	Local Filesystem
6	Security	Key protection	.env, python-dotenv
7	Deployment	Run locally or on cloud	IBM Cloud Foundry / Localhost