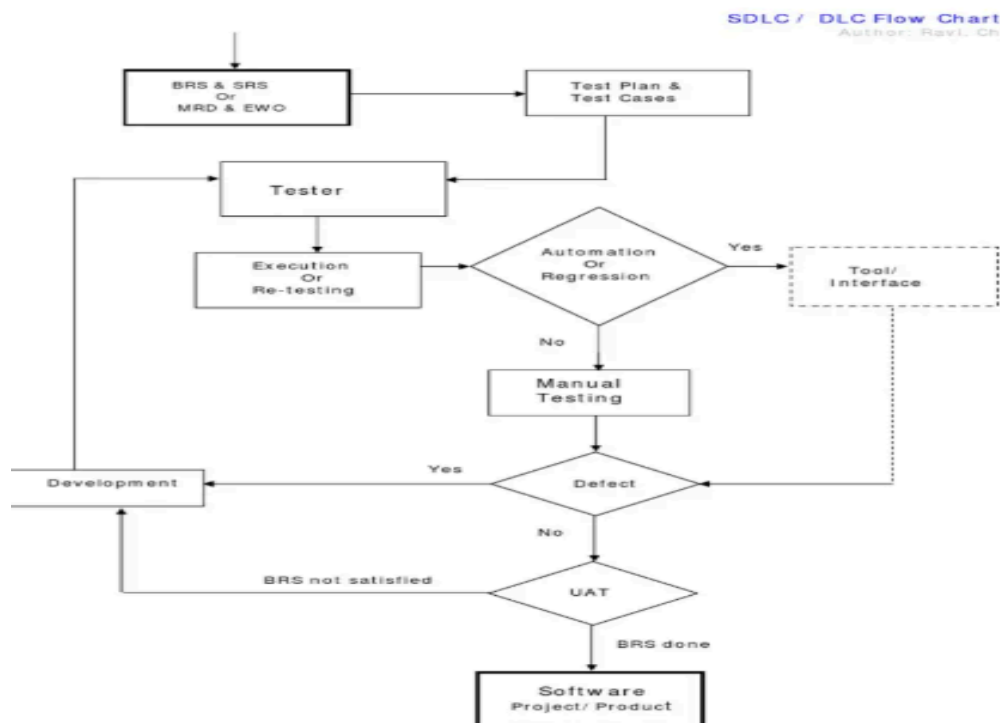


Project Design Phase-II Data Flow Diagram & User Stories

Date	27 June 2025
Team ID	LTVIP2025TMID38248
Project Name	SmartSDLC - AI-Enhanced Software Development Lifecycle
Maximum Marks	4 Marks

Date Flow Diagram:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



User Stories:

User Type	Functional Requirement (Epic)	Use Story Number	User Story/Task	Acceptance Criteria	Priority	Release
User (General)	Requirement Classification	USN-1	As a user, I can upload a PDF file to the "Requirements" tab, so that the system can analyze its content.	PDF upload button works; file is sent to backend; processing indicator shown.	High	Sprint-1
User (Project Manager)		USN-2	As a user, I can see requirements classified into SDLC phases (e.g., Requirements, Design), so that I can easily understand their category.	Uploaded PDF text appears categorized; relevant sentences are grouped under correct phase.	High	Sprint-1
User (Developer)	Code Generation	USN-3	As a user, I can input a natural language prompt for code generation, so that the AI can generate Python code.	Textarea accepts input; "Generate Code" button triggers AI; Python code is displayed.	High	Sprint-2
User (Developer)		USN-4	As a user, I can see the generated Python code clearly formatted, so that I can copy and use it.	Code is presented in a readable block; no extraneous text/warnings; copyable.	High	Sprint-2

User (Developer)	Bug Fixing & Summarization	USN-5	As a user, I can input a buggy Python code snippet, so that the AI can suggest fixes.	Input field accepts code; fixed code is displayed with comparison to original.	Medium	Sprint-3
User (Developer)		USN-6	As a user, I can input a code snippet for summarization, so that I can understand its purpose.	Input field accepts code; a concise, human-readable summary is displayed.	Medium	Sprint-3
User (QA Engineer)	Testing & Chatbot	USN-7	As a user, I can generate test cases for a given code/requirement, so that I can ensure proper testing.	Input field accepts code/req; relevant test cases are generated (e.g., unittest/pytest format).	Medium	Sprint-4
User (General)		USN-8	As a user, I can interact with a floating chatbot, so that I can get immediate answers to SDLC questions.	Chatbot button opens/closes; messages sent/received; AI provides relevant SDLC info.	High	Sprint-4