Project Design Phase-II
Data Flow Diagram & User Stories
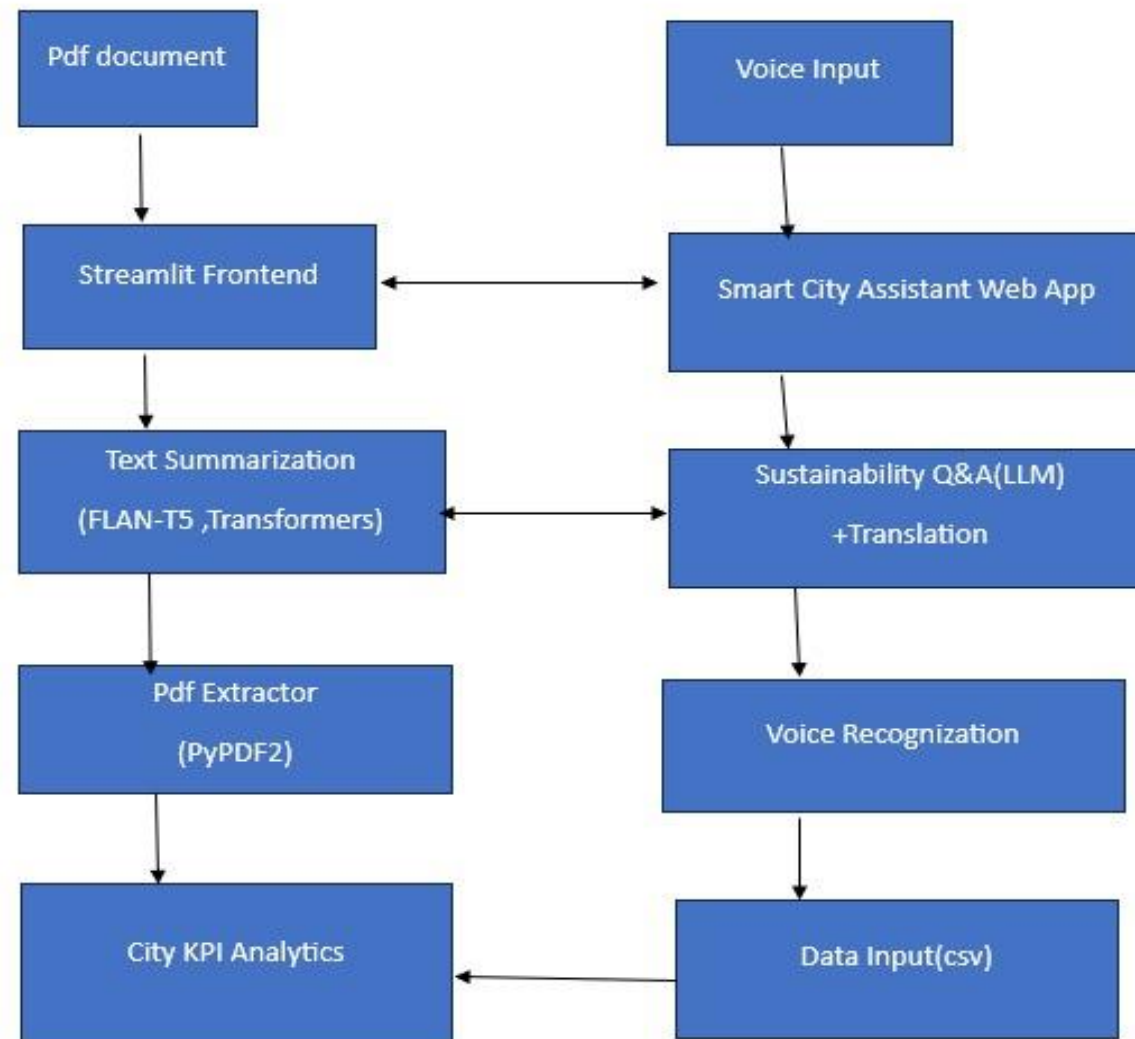
Date	27 June 2025
Team ID	LTVIP2025TMID21127
Project Name	Sustainable Smart City Assistant
Maximum Marks	4 Marks

Data Flow Diagrams:

A **Data Flow Diagram (DFD)** is a traditional visual representation of the flow of information within a system. It illustrates how data enters and leaves the system, what processes transform the data, and where the data is stored. A well-structured DFD helps in understanding the system's functionality and requirements by clearly showing the movement and handling of data at different levels.

Data Flow Diagram (DFD):

Level 0 - Context Diagram:

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┌──────────────────┐                              ┌──────────────────┐
│   Pdf document   │                              │   Voice Input    │
└──────────────────┘                              └──────────────────┘
         │                                                  │
         ▼                                                  ▼
┌──────────────────┐                              ┌──────────────────┐
│ Streamlit Frontend │ ◄──────────────────────► │ Smart City Assistant Web App │
└──────────────────┘                              └──────────────────┘
         │                                                  │
         ▼                                                  ▼
┌──────────────────┐                              ┌──────────────────┐
│ Text Summarization │                            │ Sustainability Q&A(LLM) │
│ (FLAN-T5 ,Transformers) │ ◄────────────────► │     +Translation     │
└──────────────────┘                              └──────────────────┘
         │                                                  │
         ▼                                                  ▼
┌──────────────────┐                              ┌──────────────────┐
│   Pdf Extractor   │                             │ Voice Recognization │
│     (PyPDF2)      │                             └──────────────────┘
└──────────────────┘                                       │
         │                                                  ▼
         ▼                                         ┌──────────────────┐
┌──────────────────┐                              │  Data Input(csv) │
│ City KPI Analytics │ ◄───────────────────────── └──────────────────┘
└──────────────────┘
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User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Citizen(web)	Document Upload	USN-1	As a user, I can upload policy documents (PDF) to get summarized insights.	PDF is uploaded and summary is generated.	High	Sprint-1
Citizen(web)	Text to Text QA	USN-2	As a user, I can ask sustainability questions and receive AI-generated answers.	Answers are accurate and appear on screen.	High	Sprint-1
Citizen(web)	Translation	USN-3	As a user, I can view answers in local language (e.g., Hindi, Telugu).	Answers translated accurately.	Medium	Sprint-2
Citizen(web)	Voice Interaction	USN-4	As a user, I can speak questions using my microphone.	Voice is captured and converted to text.	Medium	Sprint-2
Citizen(web)	Issue Reporting	USN-5	As a user, I can report sustainability issues from the app.	Confirmation is shown after submission.	Medium	Sprint-1
Citizen(web)	View KPI Data	USN-6	As a user, I can upload KPI data and see trends and anomalies.	Graph is shown; anomalies highlighted.	High	Sprint-1