Project Planning & Scheduling – Executing the Vision

📅 Project Timeline Overview

To ensure smooth development and timely delivery of all features, the Smart City AI Assistant was developed in carefully defined phases. Each week focused on key deliverables, allowing ample time for testing, integration, and polish.

🗡 Weekly Milestone Chart

Week	Focus Area	Key Activities
Week 1	Ideation & Research	Finalize problem statement, empathy map, brainstorming
Week 2	Requirement Gathering & Tool Selection	Define user journey, functional specs, select models/tools
Week 3	Core Module Development	Chat assistant, summarizer, KPI dashboard, eco tips
Week 4	ML Modules & Report Generation	KPI forecasting, anomaly detection, PDF report output
Week 5	UI Integration & Gradio Design	Tabbed interface creation, layout polish, user input validation
Week 6	Testing, Bug Fixes & Optimization	Performance tuning, testing each module, model output review
Week 7	Documentation & Submission	Finalize all reports, create documentation and screenshots

🔁 Agile Mini-Sprint Approach

The development followed an **iterative and incremental model**, with a weekly sprint cycle:

- ✅ **Plan** – Define weekly deliverables
- 🔨 **Develop** – Build and test one module at a time
- 🧪 **Review** – Validate outputs, iterate based on feedback
- 🚀 **Integrate** – Plug the module into the Gradio interface

This minimized technical debt and ensured all features were usable and polished by the end of the cycle.