**PROJECT PLANNING & SCHEDULING**

**5.1 Project Planning**

Proper project planning ensures timely delivery, resource optimization, and quality output. For the HEALTH-AI project, planning revolved around clear milestones, resource allocation, and risk mitigation.

**🎯 Project Objectives Recap:**

* Develop a conversational healthcare assistant using IBM Granite 3.3 2B model.
* Enable symptom input and output of diseases, remedies, and treatment suggestions.
* Visualize predictions with charts.
* Deliver a Python-based, modular, and scalable solution.
* Complete within internship duration.

**⏳ Project Timeline and Milestones**

| **Phase** | **Duration** | **Activities** | **Deliverables** |
| --- | --- | --- | --- |
| **Requirement Analysis** | Week 1 | Understanding project scope, gathering requirements, ideation sessions | Requirement Document, Use Cases |
| **Design Phase** | Week 2 |  | Architecture Diagrams, |
| **Development Phase** | Weeks 3-5 | Writing Python code, integrating IBM Granite API, building visualization | Working Code, API Integration |
|  |  |  |  |
| **Testing Phase** | Week 6 | Functional & performance testing, bug fixes | Test Reports, Refined Code |
| **Documentation & Delivery** | Week 7 | Preparing documentation, final review, GitHub upload | Final Report, Source Code Upload |

**🧑‍💻 Resource Allocation**

| **Resource** | **Role** | **Tools/Platforms** |
| --- | --- | --- |
| Intern (You) | Developer, Tester | Python, Google Colab, Hugging Face API, Matplotlib |
| Mentor (Smart Bridge) | Guidance & Review | Regular progress check-ins |
| APIs | IBM Granite Model | Hugging Face Inference API |

**Risk Management**

| **Risk** | **Impact** | **Mitigation Strategy** |
| --- | --- | --- |
| API latency or downtime | Medium | Use retry mechanisms, cache responses |
| Model output inaccuracies | High | Include disclaimers, avoid diagnostic certainty |
| Limited dataset for rare symptoms | Medium | Focus on common symptoms, update model later |
| Time constraints | High | Strict adherence to planned timeline |

**Tools and Methodologies**

* **Agile Development:** Iterative coding and testing with weekly sprints.
* **Version Control:** GitHub for source code and documentation.
* **Communication:** Regular mentor meetings for feedback and adjustments.
* **Testing Framework:** Manual functional tests supplemented by performance metrics.

**Summary:**

The HEALTH-AI project was carefully planned to align with internship timelines and technical goals. Clear milestones and risk assessments ensured smooth progress, allowing the development of a robust AI healthcare assistant.