**Implementation Detail Plan**

**(Project: Automated SEO Meta Tags Generator)**

**Group Members:**

* Wajahat Ali Hassan
* Muhammad Tayyib
* Natasha Karim

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| **Sprint** | **Weeks** | **Implementation Detail** |
| Sprint 1  (Project Setup &  Data Collection) | Week 1 | Setup the development environment, including installing necessary libraries and tools. Create Simple HTML page for the project |
| Week 2 | Implementing web scraping functionality using Beautiful Soup or Scrapy to extract data from the top 10 competitors’ websites |
| Sprint 2  (Generative AI  Integration) | Week 3 | Research and choose a suitable Generative AI model (e.g., GPT & BARD API) for optimized meta tag generation |
| Week 4 | Integrate the chosen AI model into the project and ensure it can generate meta tags effectively |
| Sprint 3  (REST API Integration & Web Design) | Week 5 | Develop a REST API to connect the web scraping python program with the Generative AI model’s API. |
| Week 6 | Begin designing the front-end of the website, focusing on user-friendly input interfaces. |
| Sprint 4  (Early Testing & Meta Tag Enhancement) | Week 7 | Conduct early testing to ensure data flows smoothly between components. Gathers feedback for improvement. |
| Week 8 | Enhance web scraping to collect additional meta tags beyond titles and descriptions from competitors. |
| Sprint 5  (AI model Fine-Tuning & Optimization) | Week 9 | Fine-tune the Generative AI model to improve the quality and relevance of generated meta tags. |
| Week 10 | Optimize the AI model’s performance and responsiveness within the system |
| Sprint 6  (Code Cleanup &  Further Testing) | Week 11 | Clean up the codebase, improve documentation, and ensure proper formatting and commenting |
| Week 12 | Test the system on different use cases to identify and resolve any remaining issues or bugs. |
| Sprint 7  (Final Testing &  User Feedback) | Week 13 | Conduct comprehensive testing, including user acceptance testing (UAT), to ensure the system’s readiness |
| Week 14 | Collect User Feedback and make final refinement based on their suggestion. |
| Sprint 8  (Deployment & Review) | Week 15 | Prepare the project for deployment, ensuring all components are properly configured and optimized. |
| Week 16 | Deploy the system to a live environment, monitor its performance, conduct a project review to assess its success and identify areas for future enhancement. |