

Project Analysis (Based on Checklist):

1. Project Initiation:

- Define Initial Stage: Scraper-Analyzer has a clearly defined the target website, identified data for extraction and storage solution, and an established purpose.
- Resource Planning: Financial resources are allocated for server infrastructure and tool licensing. Technical resources include dependencies like requests, BeautifulSoup, pandas, and matplotlib.
- Preliminary Project Planning: The Scraper and Analyzer scripts form an initial code base for development.
- Overall Organization: The main file (`main.py`) ties the Scraper and Analyzer together, showcasing an organized structure for the code base.

2. Problem Analysis/Business Process Analysis:

- Current State Analysis: The data on the target website is currently in a clean state, and there are no obstacles preventing web scraping.
- Business Process Analysis: Based on the existing user count, the current storage solution effectively addresses the demand. However, changes may arise in the future if consumer base expands.
- Difficulties: Challenges might be faced in dealing with other websites, in understanding website structures due to complex HTML structures or frequent updates to the website layout.

3. Target:

- Envisioning Future State: Scraper-Analyzer envisions expanding its services in extracting, storing, analyzing, and visualizing data of as many sites as possible and with more types of data visualization graphs.
- Vision Sketch: Scraper-Analyzer crafts a vision sketch emphasizing a user-friendly platform providing actionable insights derived from diverse datasets.

4. Market Analysis:

- Target Market: The target market includes Technology Companies, Financial Institutions, Government Agencies, Healthcare Organizations, and E-commerce Platforms.
- Competitor Analysis: Scraper-Analyzer may face competition from established analytics platforms, web scraping services, BI tools, and other emerging startups in the analytics sector.

5. Communication and Stakeholder Engagement:

- Identify Stakeholders: Scraper-Analyzer has identified stakeholders, including potential clients, data providers, and investors.
- Communication Alignment: Clear communication channels have been established, ensuring alignment between technical and non-technical stakeholders.

6. Feasibility Study & Risk Analysis:

- Feasibility Assessment: Scraper-Analyzer has conducted a feasibility study considering technical feasibility, market demand, financial viability and operational aspects.
- Risk Identification: Risks related to data integrity, scalability, and market competition have been identified.
- Strategies have planned made for risk mitigation and ensuring the success of the project.

7. Quality Assurance:

- Quality Procedures: Scraper-Analyzer has established quality procedures for data processing, ensuring accuracy, and implementing regular code reviews and testing.
- Continuous Improvement: The startup is working for continuous improvement, integrating user feedback to enhance features and maintain high-quality standards.

8. Technical Prototype:

- Create Prototype: Scraper-Analyzer has developed a technical prototype showcasing its advanced data extraction algorithms and user interface design.
- The prototype is ready to seek feedback from potential users.

9. User Interface Draft:

- User Interface: Scraper-Analyzer has invested in designing an intuitive graphical user interface (GUI) for data visualizations.
- Usability and User Experience: A special focus has been on user experience to make data analysis accessible to a broader audience.

10. Glossary:

- Establish Glossary: Scraper-Analyzer maintains a glossary for internal use, ensuring consistency in language and avoiding confusion among team members.

11. Use Cases and Processes:

- Documentation of Use Cases: Scraper-Analyzer has documented specific use cases, highlighting the versatility of its platform in handling various data domains and user scenarios.

12. System Interfaces:

- Identification of Interfaces: Scraper-Analyzer integrates seamlessly with external systems, including Windows, Mac, and Linux, and ensures a smooth flow of its operations.