**PROJECT MANAGEMENT PLAN**

2.1 Project Organization (Giorgos Pittis)

Our group has chosen to work together in an organized manner in order to effectively manage the Airline Management System development. For a well-coordinated effort, each team member has been given distinct duties and responsibilities. The project is organized around important stages, and we have followed a schedule in order to achieve our goals.

* Lead Developer(Coding and Implementation): (Martin)

---Responsible for coding the core functionalities of the Airline Management System.

---Ensures the system is robust, scalable, and meets the specified requirements.

---Collaborating with other team members to ensure seamless integration with the documentation and testing phases.

* Documentation Team:

---Documentation Lead(Giorgos) :

* Oversees the entire documentation process.
* Coordinates with team members to gather information for each section.
* Ensures the documentation aligns with the project's goals and requirements.

---Introduction(Aggelos, Nikolas):

* Outline the purpose and scope of the airline management system.
* Provide a comprehensive product overview highlighting key features and functionalities.
* Define terms, acronyms, and abbreviations for better understanding.

---Project Management Plan(Aggelos ,Nikolas ,Giorgos):

* Define the chosen lifecycle model and justify its selection.
* Conduct risk analysis and propose risk mitigation strategies.
* Specify hardware and software resource requirements.
* Develop a detailed schedule of deliverables and project milestones.
* Establish mechanisms for monitoring, reporting, and controlling project progress.
* Ensure adherence to professional standards.
* Implement configuration management for all project artifacts.

---Requirements Specification(Giorgos):

* Identify stakeholders for the airline management system.
* Develop the use case model and provide a graphical representation.
* Draft textual descriptions for each use case.
* Provide rationale for the selected use case model.
* Outline non-functional requirements.

---Architecture(Nikolas):

* Collaborate on architectural style/model selection.
* Document the technology, software, and hardware used in the system.
* Provide rationale for the chosen architectural style and model.

---Design(Aggelos, Giorgos):

* Contribute to GUI (Graphical User Interface) design documentation.
* Collaborate on static model creation, including class diagrams.
* Collaborate on dynamic model creation, such as sequence diagrams.
* Establish traceability from requirements to the detailed design model.

---Test Plan(Martin, Giorgos, Aggelos, Nikolas):

* Collaborate on the creation of requirements/specifications-based system level test cases.
* Ensure traceability of test cases to use cases.
* Contribute to the selection of techniques for test generation.
* Participate in the assessment of the quality of the test suite.

---Documentation(Giorgos, Nikolas , Aggelos):

* Generate the user manual for the airline management system.
* Develop the installation and deployment manual for the system.

**MAIN APPROACHES:**

* Agile Methodology:

Adopting an agile approach to ensure regular communication and flexibility in responding to changes.

* Daily Stand-up Meetings:

Conducting brief daily meetings to discuss progress, challenges, and plan the day's tasks.

* Collaborative Tools:

Utilizing collaboration tools (e.g., Git for version control, Slack for communication) to facilitate seamless coordination among team members.

* Parallel Development and Documentation:

Simultaneously working on coding and documentation to maintain a cohesive timeline and prevent delays.

* Iterative Development:

Implementing features iteratively, allowing for continuous testing and feedback.

**TIMELINE:**

Project Initiation (Week 1-2):

* Team familiarization with project requirements.
* Division of roles and responsibilities.
* Initial planning and discussions.

Coding and Implementation (Week 3-8):

* Lead Developer focuses on core functionalities.
* Regular updates and feedback loops with the documentation team to align with evolving features.

Documentation Phases (Week 3-10):

* Each documentation team member works on their designated phase.
* Collaboration sessions to ensure consistency across all sections.

Integration and Testing (Week 9-12):

* Integration of coded modules.
* Testing and debugging phases.

Finalization and Submission (Week 13):

* Final documentation review and edits.
* System demonstration and preparation for submission.

2.2Lifecycle Model Used (Giorgos Pittis)

* Lifecycle model used🡪 Agile Methodology  
  The reasons we used Agile methodology for the Airline Management system:

1.Flexibility and Adaptability:  
🡪 Dynamic requirements are part of the Airline Management System project, and they could change as it develops. Agile, with its iterative and incremental nature, allows us to easily adapt to changing customer needs and industry demands.

2.Continuous User Involvement:

🡪 Agile places a strong emphasis on regular stakeholder collaboration, including with end users. Because our system serves both administrators and passengers, it is essential to have ongoing user feedback in order to improve features and guarantee user satisfaction.

3.Iterative Development:

🡪 The iterative development approach in Agile enables us to break down the project into smaller, manageable increments. Each iteration results in a potentially shippable product increment, allowing for early delivery of valuable features.

4. Collaboration and Communication:

🡪 Agile promotes a collaborative environment where team members actively communicate and work together. This aligns with our team structure, ensuring efficient coordination between the coding and documentation teams for seamless integration.

5. Quick Response to Changes:

🡪 Agile allows requirements to be changed at any point during the development process. For a project like ours, where user preferences may change or the airline industry may experience regulatory changes, this is especially beneficial.

6. Transparent Progress Tracking:

🡪 Agile approaches, with their frequent sprint reviews and daily stand-up meetings, offer transparent insight into the status of projects. By being transparent, the team makes sure that everyone is aware of the status of the project and that any problems/errors can be quickly resolved.

7. Risk Mitigation:

🡪Agile allows for early identification and mitigation of risks through continuous testing and validation during each iteration. This proactive approach reduces the likelihood of late-stage project setbacks.

Why Agile Methodology has been selected:

🡪The Agile (Scrum) methodology has been selected for the Airline Management System project due to its inherent flexibility, iterative development approach, and emphasis on continuous collaboration. By adopting Agile, we aim to respond to evolving requirements, involve users throughout the development process, and deliver a high-quality system that meets both customer expectations and industry standards. This approach ensures a streamlined and adaptive development process, aligning with the project's dynamic nature and the need for consistent communication and collaboration within the team.