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REVISION HISTORY

Date	Version	Description	Author
21/02/2024	1.0	Gantt Chart created and modified.	Rashad Musayev Jeyhun Javadov Teymur Mammadov Ilkin Tomuev
23/02/2024	1.1	Identification Chapter created	Teymur Mammadov Ilkin Tomuev
24/02/2024	1.2	Risk Analysis table	Rashad Musayev Jeyhun Javadov
25/02/2024	1.3	Gantt Chart modified, assigned responsibilities	Jeyhun Javadov
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04/03/2024	2.0	Gantt Chart Titles updated	Ilkin Tomuev
05/03/2024	2.1	Gantt Chart Dates adjusted and extended	Teymur Mammadov Jeyhun Javadov
05/03/2024	2.2	Risk Indicators and Strategies added	Rashad Musayev

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1 Identification

1.1 Document overview

This document contains the software development plan of Airport Management System software.

Airport Management System is a web application that allows the listing and managing of customers, flights, and airplanes. This software is primarily designed for administrators. With AMS web application administrators can add, remove, and update customers, flights, and airplanes.

1.2 Abbreviations

1.2.1 Abbreviations

AMS: Airport Management System
UML: Unified Modeling Language
IDE: Integrated Development Environment
JDK: Java Development Kit
SRS: Software Requirement Specification
STP: Software Test Plan
SDD: Software Design Document
STR: Software Test Report

1.3 References

1.3.1 Project References

#	Document Identifier	Document Title

2 Software Development Activities

The section lists and describes the software development activities of the Airport Management system software development project.

2.1 Software development process

This is a course project, which adopts the waterfall model as the software development process.

2.1.1 Overview of process phases

The software development process for the project will be composed of the following phases:

- Planning
- Requirements Analysis
- Design
- Implementation
- Testing and Analysis

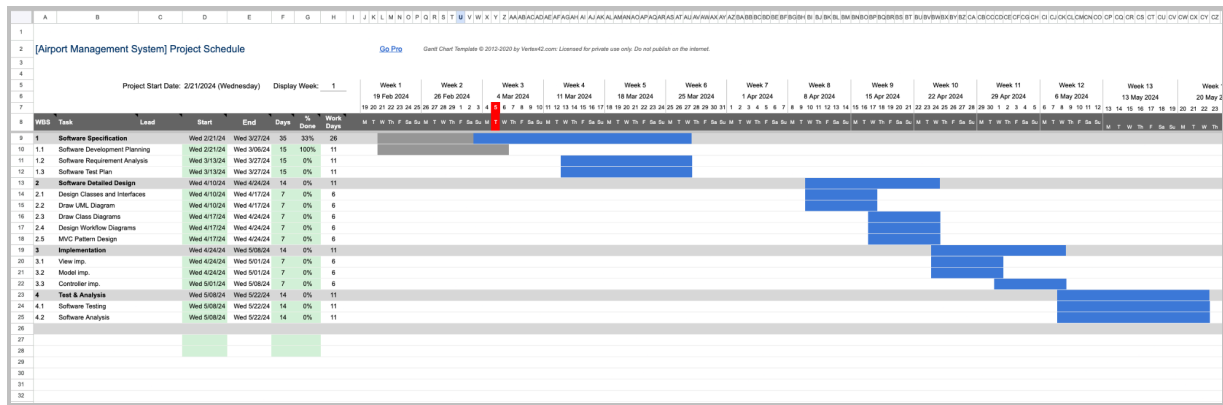
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These phases will follow each other sequentially, where each phase starts just after the completion of the previous one. The following Gantt chart depicts the planned start date and duration for the phases.



2.1.2 Technical documentation

The following documentation is produced during the software development phases:

- Software specification: SRS, STP
- Software detailed conception: SDD
- Software tests phases : STR
- Software analysis: SAR

2.1.3 Deliverables

The following items will be delivered at the end of the process:

- Technical documentation as outlined in Section 2.1.2
- Software and its configuration files

2.2 Software development tools

2.2.1 Workstation

Macbook Air, Apple M1, 3.2GHz, 16 GB RAM, Ventura 13.3.1

Macbook Pro, Quad-Core Intel Core i5, 2.3GHz, 8 GB RAM, Sonoma 14.3

Macbook Pro, Quad-Core Intel Core i5, 2.4GHz, 8 GB RAM, Sonoma 14.3

Acer, Intel® Core™ i7-1065G7 CPU, 1.5 GHz, 16 GB RAM Windows 10

2.2.2 Requirements management and documentation

Microsoft Word

Microsoft Excel

Google Docs

Zoom

2.2.3 Software Design

Tools used for software design:

- Argo for UML Diagram
- Java Swing Library for GUI Design

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- Google Cloud Server to store user and product information

2.2.4 Coding and automated tests

- IntelliJ IDEA v2022.3.1
- Eclipse 2022.3
- Java JDK 19
- JUnit 5

2.2.5 Configuration management

GitHub¹ will be used for software configuration management and tracking issues regarding software development. A public repository will be created for this purpose.

2.3 Software development rules and standards

UML² will be used for software design documentation.

MVC³ will be used for the software design pattern.

The Main coding language for this project is Java. Coding conventions of Java are listed in the following link: <http://www.oracle.com/technetwork/java/codeconvtoc-136057.html>

3 Responsibilities

3.1 Activities and responsibilities

Activity	Responsibility	Comment
Project management	Rashad Musayev	Liabile for the project's progress and ensuring that it is completed on schedule.
Configuration tools management	Ilkin Tomuev, Jeyhun Javadov	Managing the project's GitHub account administrator.
Setting up the Development tools	Teymur Mammadov, Ilkin Tomuev,	Ensuring that the tools needed for development are available to all.
Model	Jeyhun Javadov	Is in charge of fusing the GUI and database components.
View	Rashad Musayev, Ilkin Tomuev	In charge of the project's development and GUI design.
Controller	Teymur Mammadov	Creating the first classes and generating the UML diagram.

4 Risk Assessment

4.1 Risk Analysis

¹ <http://www.github.com>

² <http://www.uml.org/>

³ <https://rb.gy/vr7sgi>

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Risk	Probability	Effects
1. The time needed to develop the software is calculated wrong	Low	Medium
2. Software tools cannot work together in an integrated way.	Low	Tolerable
3. Any group member could withdraw from the course.	Low	Tolerable
4. Any group member could be ill or unavailable.	Medium	Tolerable
5. Lack of adjustability for requirements change.	Low	Serious

4.2 Risk-Planning

Risk	Strategy
1. Time problems	Define project deadline less than maximum time given, then define deadlines for each small tasks
2. Software problems	Reducing dependency on software.
3. Group member withdrawal	Reorganize the team by splitting tasks again between remaining team members. Report the issue to the professor.
4. Group member getting sick	Reanalyze tasks, and reorganize tasks among the remaining group members.
5. Requirement changes	Writing code in clean architecture, reducing class and module dependencies, so that, changing one part does not affect other.

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