VERSION CONTROL				
Version	*Authors*	*Quality Verifier*	*Date*	*Description*
1.0.0	Miguel Ángel Pinzón Caro 48547	- Eng. Celestino Manuel Baptista de Macedo Alves - Dra. Maria Paula Morais - Dr. Thiago Andrade Silva - Dra. Maria João da Silva Costa Ferreira	26/10/2023	Initial Version

INITIALISATION OF THE PROJECT

Project Name	*Project Acronyms*
PORJECT DEVELOPMENT OF A DESKTOP APPLICATION FOR AIRPORT MANAGEMENT INFORMATION SYSTEM	AMIS

CONTENT

PROJECT CHARTER

1. Project Name	*2. Project Acronyms*
PORJECT DEVELOPMENT OF A DESKTOP APPLICATION FOR AIRPORT MANAGEMENT INFORMATION SYSTEM	AMIS

3. Project Description:

The main purpose of this project is to develop an airport management information system (AMIS) software for efficient and reliable flight allocation processes depending on the availability of the airline providing the service and the city to which the flight is heading and the city of departure respectively. The AMIS will be designed and developed taking into account the specific needs of the airport's infrastructure and operations, with a focus on improving communication between the personnel who are designated to provide the service.

The project will be carried out from the 26th of October 2023 until the 30th of July 2024, and will be developed initially in the areas of analysis and educational development at the Portucalense University, in the areas of Project Management, Programming Laboratory, Requirements Engineering in the facilities of the University.

4. Definition of the Project Product

1. Access the system by airport officials.
2. For each airport it is necessary to know which flight companies operate.
3. The system must have a record of the name of the airports, the city where it is located and the country in which it operates.
4. Register the passenger in the system database.
5. Managing passengers' personal information.
6. Generate the assignment of a flight to a passenger.
7. Record the cost and flight assignment to a passenger.
8. Register airports, these can be Public and Private.
9. For Private airports must register the companies that sponsor them.
10. For Public airports, you have to register the amount of money that is allocated to you by the government of the respective country.

5. Definition of Project Requirements
RQAMIS-000: Login to the system by the administrator with credentials previously created by the software operations team.
RQAMIS-001: Create by the general administrator the respective users with assignment of the roles previously generated by the development team.
RQAMIS-002: Successfully login to the system with their credentials generated by the general administrator user by any user.
RQAMIS-003: Consult the managed airports, indicating separately the public and private airports. For each one of them, the name, the city where it is located and the country to which it belongs must be shown, and all the roles must have access for consultation.
RQAMIS-004: Allow the airline's Sales Manager user to access the available flights offered by the airline to be assigned to a specific passenger user.
RQAMIS-005: Display the companies sponsoring a given airport in case it is a private airport, system administrator, airport management and administration.
RQAMIS-006: Display the amount of subsidy in the case of a public airport by the role of the Governmental Authority, system administrator, airport management and administration.
RQAMIS-007: Show the list of airlines flying from a given airport to that airport.
RQAMIS-008: List all possible flights offered by that airline, showing their identifier, the city of origin and destination and the price of the flight For a particular airline operating at a particular airport.
RQAMIS-009: Show all possible flights (identifier) departing from an origin city to another destination city (indicated by the user) y show their price.
RQAMIS-010: Ability to record and keep up to date the availability of the different airlines for the allocation of flights.

6. Project Objectives		
6.1. Concept	6.2. Objectives	6.3. Success criteria
1. Scope	To comply with the elaboration of the following deliverables: Project Management, Development of the software product, complying with the rubrics and requested technology stipulated in the curricula of each one of the subjects, which are dependencies of the product, total	Approval of all deliverables by the company requesting the software and the implementation of all requested technologies.
2. Time	Complete the project within the timeframe requested by the company.	Complete the project in 41 weeks, from October 26, 2023 to July 31, 2024.
3. Cost	Comply with the estimated project budget of € 770,000	Do not exceed the project budget.

7. Purpose of the Project
Achieve airport management

8. Justification of the Project		
Qualitative justification	Quantitative justification	
Achieve airport management	Time saving	
Improve Airport Management and Operations	Error Reduction	
Operations Optimization	Increase in Profitability	

9. Appointment of the Project Manager		
Name	Miguel Angel Pinzon Caro	*Level of Authority*
Report to	Celestino Manuel Baptista de Macedo Alves	Require compliance with the project deliverables, assignment of tools and methodologies, complete coordination between the defined teams
Supervises to	The entire Development and Operations team	

10. Project Milestone Schedule	
10.1. Significant Milestones	10.2. Scheduled Date
1. Approach to the idea of a solution to the problem of the case study 2. Establishment of the project team	Thursday, October 26, 2023
3. Initial requirements analysis 4. Preparation of the project plan 5. Detailed investigation of requirements and best practices	1 week October 30, 2023 to November 3, 2023
6. Preliminary system design 7. design of the initial project documents	November 3, 2023 to November 6, 2023
8. Delivery of the project charter document for subsequent review	1 week November 6, 2023 to November 10, 2023
9. Design review with stakeholders 10. Design approval	1 week November 13, 2023 to November 17, 2023
11. Design of modeling artifacts and static architecture to visualize the operation of the product. 12. Data management design and data architecture modeling.	1 week November 20, 2023 to November 24, 2023
13. Coding and development functional phase of the system (interaction via terminal)	1 week November 27, 2023 to December 01, 2023
14. Unit tests	December 04, 2023
15. Report and analysis of unit tests	December 07, 2023 to December 11, 2023
16. Development of software modules 17. Development and implementation of special and specific libraries to generate the first phase of functional graphical interface interaction	2 weeks December 11, 2023 to December 29, 2023
18. delivery and presentation of the project plan and development progress	December 14, 2023
19. Final documentation 20. Project review and closure	July 31, 2024

11. Organizations involved in the project	
Organization or group of organizations	Role, it plays
Portucalense University	Organization in charge of providing the necessary knowledge for learning and

	acquisition of knowledge for its development
Kronos Corporation	Company in charge of all development and production management of the software product
(AWS) Amazon Web Service	Organization that is responsible for the management of technological infrastructure for the provision of cloud computing services
(GCP) Google Cloud Computing	Organization that is responsible for the management of technological infrastructure for the provision of cloud computing services
Airports	Organization primarily interested in implementing the product to be developed in the project
Airlines	Group of organizations that interact directly with the client that the company would contract, this mainly data transactions
Regulatory Authorities	Government agencies and aviation regulators may have specific standards and regulations that must be met in the core business rules of the project.
IBMServices	Organization in charge of consulting various application topics for the software, this is hired by the development company.

12. Main threats to the project

- The modeling designs in the requirements engineering phase are not complete
- Lack of communication between the different departments that interact for the development of the product
- The costs of the project must not exceed the budget presented in the proposal, otherwise they will be assumed by the service provider.
- Frequent changes in system requirements can lead to delays and increased costs if not managed properly.
- The complexity of integrating multiple systems and technologies can lead to unforeseen technical difficulties.

- Setting very tight deadlines could increase pressure on the team and increase the risk of missing the schedule.

- Failures in software quality could result in operational errors that affect airport efficiency.

- Changes in government or industry regulations may affect the design and implementation of the software.

- Resource limitations, whether in terms of staff, budget or time, could impact project execution.

13. Main Project Opportunities

- The software can optimize processes, reduce waiting times and increase efficiency in managing airport operations.

- The implementation of new technologies could allow the introduction of innovations that improve user experience and security.

- The opportunity to integrate existing systems with new software can improve the consistency and effectiveness of operational processes.

- Detailed data collection and analysis can provide valuable information for strategic decision making, improving planning and operational effectiveness.

- Collaboration with other companies or entities in the sector can open opportunities for the creation of strategic alliances that promote innovation.

- Software implementation can provide training and development opportunities for staff to improve their skills and competencies.

- Through process automation, software can reduce operating costs in the long term, resulting in financial savings.

14. Preliminary Project Budget

CONCEPT		Value (EUR)
1. Staff	- Development team	€ 200 000,00
	- Testing Staff	€ 80 000,00
	- Project management	€ 50 000,00
	- Operations team	€ 80 000,00
2. Hardware and Software	- Computer equipment	€ 70 000,00
	- Software Licenses	€ 50 000,00
3. External consultancy	- Specialized consultants	€ 100 000,00
4. Training	- Staff Training	€ 30 000,00
5. General expenses	- Office, Supplies, Travel	€ 40 000,00

		TOTAL BASELINE	€ 700 000,00
6. Contingencies (10%)	- Contingencies (10%)		€ 70 000,00
		TOTAL BUDGET	€ 770 000,00

15. SPONSOR AUTHORISING THE PROJECT

Name	*Company*	*Position*	*Date*
Fernando Meyer	Fraport AG	Agent sponsor of private companies	02/11/2023
Maria Jose Fisher	Vinci Airports	Agent sponsor of private companies	02/11/2023
Country Interested	Government of the country	Sponsor of government-assigned	02/11/2023
Miguel Angel Pinzon Caro	Kronos Corporation	Project Financier	02/11/2023

16. List of Stakeholders

- By general role in the project-

Project Name	*Project Acronyms*
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NAME STAKEHOLDER	*TYPE STAKEHOLDER*	*DESCRIPTION*
Project Financier	Financial shareholder of the project	This role is the one that finances the project in its entirety.
Project Manager (PM)	Director Project	Responsible for planning, implementing and monitoring projects to achieve specific objectives.[10]
Developer (DEV)	Project Team	The work of a developer involves designing, implementing, debugging and optimizing software, as well as maintaining and constantly updating the solutions created. [11]
Quality Assurance (QA)	Project Team	The main objective of QA is to identify and prevent defects in the software, ensuring that the delivered product is reliable. [12]
Engineer DevOps	Project Team	Professional specializing in the development, implementation and maintenance of practices and tools that pursue continuous integration, continuous delivery (CI/CD) and automation within the software development lifecycle. [13]
Designer (UX/UI)	Project Team	Professional in charge of creating digital interfaces that are intuitive, functional and enjoyable for the end user. [14]
Data Engineer	Project Team	Professional for the design, implementation and management of systems and processes that enable the

		efficient acquisition, storage, transformation and analysis of large volumes of data.[15]
System Administrator	Intermediate user- airport staff	This is the ROLE that has full access to the entire system and its data, with permissions to Create, Modify, Read and access any directory or file.
Regulatory Authorities Governmental	Governmental authorities	It is a government authority and audit role, the administrator user gives this role read permissions to read files and directories, but has access to all information in the system.
Passengers	Final User	This role does not interact directly with the system as it is created only for airport officials, it interacts with officials with Airline Sales Agent Roles.
Airport IT Manager	Intermediate user- airport staff	This is the role in charge of the whole communication system in software and infrastructure throughout the airport, this role has access to system log records.
Flight Scheduler	Intermediate user- airport staff	is the role in charge of scheduling and coordinating with the airlines and the availability in each departure and arrival city, this role has access only to information from the airlines, and to the cities.
Airport Authority	Intermediate user- airport staff	This role has access only to consult passenger information, in order to corroborate and filter possible offenders.
Airline sales agent	Intermediate user- airline staff	This role has access to the airline's available flights and seats and cost, as well as access to passenger information in order to assign a seat to a passenger's flight.
Airline Directors Government agent financing the public airport	Intermediate user- airline staff	This is a role that can only access the sales information of each airline and the information of the sales agent of the airline it manages.

Sponsor of private companies	Sponsor Airport	This is the role in charge of financing the public airport with government resources. This person is designated by the government to transfer the necessary resources for the operation of the airport.
Sponsor of government-assigned	Sponsor Airport	It is the representative role of each private company that promotes the resources necessary for the operation of the private airport, this role has access only to investment information at the airport.

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