

**Course Information:** SW Engineering ISE 304

**Report Name:** Project Plan

**Project Title:** GlobalCargo Connect

**Group Name and Members:**

- Emre Demir
- Samet Genç
- Abdullah Salih Özgüven
- Selim Albayrak

# 1. INTRODUCTION

## 1.1

### **SCOPE:**

The project aims to develop a mobile application that facilitates and enhances the exporting and importing processes for companies and traders globally. The purpose of the application is to address the current challenges in finding suitable transportation tools, such as containers, that meet the specific needs of companies involved in international trade.

## 1.2

NO	Deliverable
1	Mobile interface for customers and logistic firms
2	Collected and integrated data for app enrichment
3	Advertising budget for application spread
4	Customer outreach and connection with logistics companies
5	Marketing strategy document
6	Target audience definition and segmentation
7	Developed marketing materials (brochures, ads, etc.)
8	Completed advertising campaigns
9	User training materials and support documentation

10	Established data-sharing agreements with logistics companies
11	Enhanced security features in the application
12	Performance optimization measures
13	Usability testing and improvements

### 1.3

#### ***FUNCTIONAL REQUIREMENTS/TASKS - Table of Tasks***

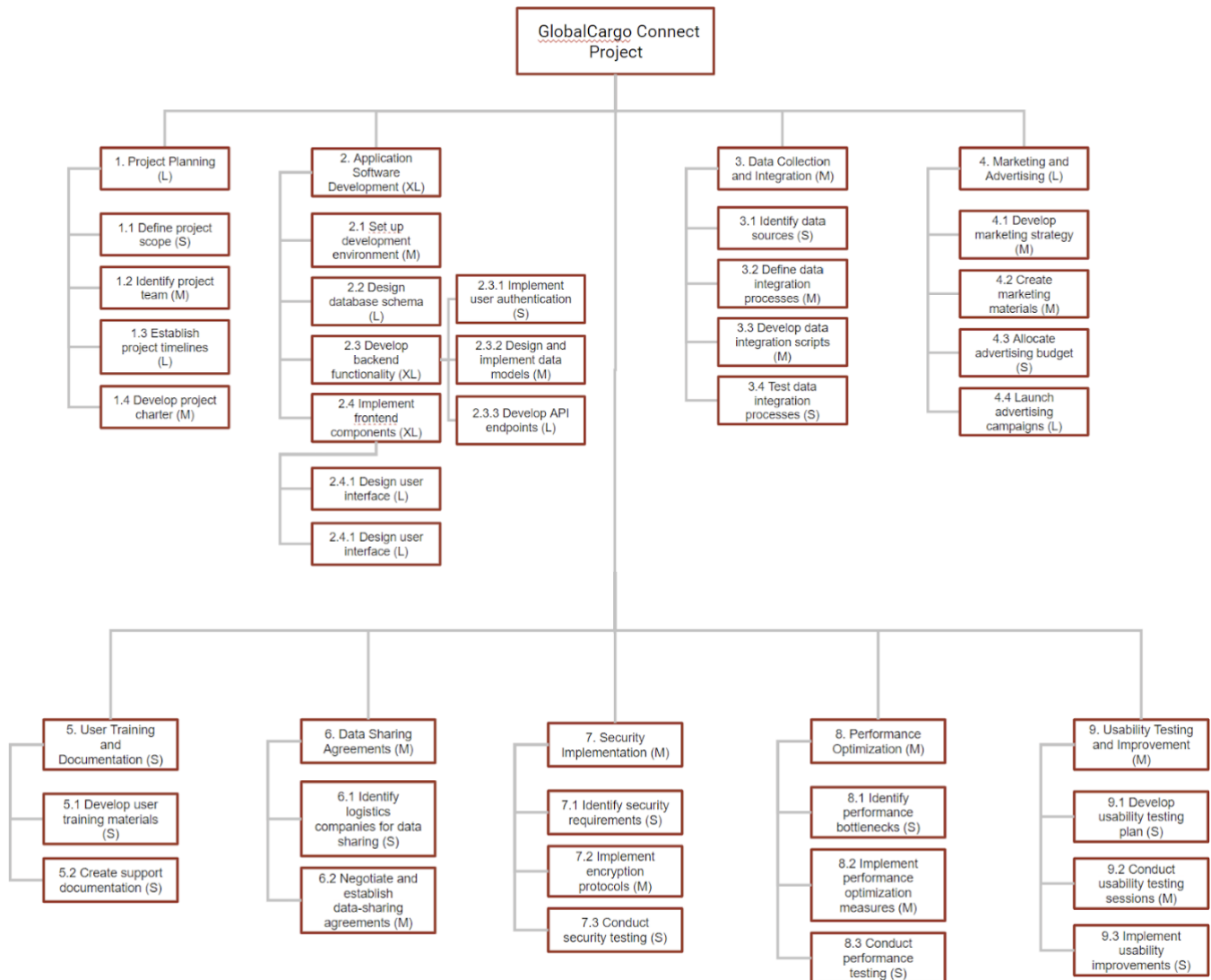
NO	Task Description	Mapped Deliverable
1	Develop mobile interface and connect logistic firms	1,4
2	Integrate data for app enrichment	2
3	Manage advertising budget and launch campaigns	3,8
4	Develop marketing strategy and materials	5,6,7
5	Develop user training materials and support documentation	9
6	Establish data-sharing agreements with logistics companies	10
7	Implement enhanced security features	11
8	Optimize application performance	12
9	Conduct usability testing and implement improvements	13

### 1.4

#### ***NON-FUNCTIONAL ISSUES - Security, Performance, Usability***

- Security:
  - Enhanced security features in the application (Mapped to Task 11)
  - Establish data-sharing agreements with logistics companies (Mapped to Task 10)
- Performance:
  - Optimize application performance (Mapped to Task 12)
- Usability:
  - Conduct usability testing and implement improvements (Mapped to Task 13)

## 2. PROJECT PLAN



# 3. ESTIMATES

## Man-Week Estimates:

### Project Planning - 2 weeks (L)

- 1.1 Define project scope - 1 week (S)
- 1.2 Identify project team - 1 week (M)

### Application Software Development - 12 weeks (XL)

- 2.1 Set up development environment - 2 weeks (M)
- 2.2 Design database schema - 2 weeks (M)
- 2.3 Develop backend functionality (XL)
  - 2.3.1 Implement user authentication - 1 week (S)
  - 2.3.2 Design and implement data models - 2 weeks (M)
  - 2.3.3 Develop API endpoints - 2.5 weeks (L)
- 2.4 Implement frontend components (XL)
  - 2.4.1 Design user interface - 2 weeks (L)
  - 2.4.2 Develop user interface components - 2 weeks (XL)

### Data Collection and Integration - 6 weeks (M)

- 3.1 Identify data sources - 1 week (S)
- 3.2 Define data integration processes - 2 weeks (M)
- 3.3 Develop data integration scripts - 2 weeks (M)
- 3.4 Test data integration processes - 1 week (S)

### Marketing and Advertising - 5 weeks (L)

- 4.1 Develop marketing strategy - 2 weeks (M)
- 4.2 Create marketing materials - 2 weeks (M)
- 4.3 Allocate advertising budget - 1 week (S)
- 4.4 Launch advertising campaigns - 2 weeks (L)

### User Training and Documentation - 2 weeks (S)

- 5.1 Develop user training materials - 1 week (S)
- 5.2 Create support documentation - 1 week (S)

### Data Sharing Agreements - 2 weeks (M)

- 6.1 Identify logistics companies for data sharing - 1 week (S)
- 6.2 Negotiate and establish data-sharing agreements - 1 week (M)

### Security Implementation - 3 weeks (M)

- 7.1 Identify security requirements - 1 week (S)
- 7.2 Implement encryption protocols - 2 weeks (M)
- 7.3 Conduct security testing - 1 week (S)

Performance Optimization - 3 weeks (M)

- 8.1 Identify performance bottlenecks - 1 week (S)
- 8.2 Implement performance optimization measures - 2 weeks (M)
- 8.3 Conduct performance testing - 1 week (S)

Usability Testing and Improvement - 3 weeks (M)

- 9.1 Develop usability testing plan - 1 week (S)
- 9.2 Conduct usability testing sessions - 2 weeks (M)
- 9.3 Implement usability improvements - 1 week (S)

## 4. RESOURCES

### 4.1 Team Structure:

***Emre Demir (Software Engineer)***

- Role: Software Engineer
- Responsibilities: Backend and frontend development, API implementation, code review.

***Samet Genç (Software Engineer)***

- Role: Software Engineer
- Responsibilities: Frontend development, UI/UX design, user interaction modules.

***Abdullah Salih Özgüven (Data Engineer)***

- Role: Data Engineer
- Responsibilities: Data collection, integration, database management, data-sharing agreements.

***Selim (Product Manager, Marketing Manager)***

- Role:
  - Product Manager: Define product features, prioritize tasks, and ensure the product aligns with business goals.
  - Marketing Manager: Develop marketing strategies, oversee advertising campaigns, and promote the application to the target audience.

### 4.2 Mapping Between Group Members and Project Activities:

***Emre Demir:***

- Backend and Frontend Development
- Implementing User Authentication (Task 2.3.1)
- Designing and implementing data models (Task 2.3.2)

***Samet Genç:***

- Frontend Development

- Designing User Interface (Task 2.4.1)
- Developing User Interface Components (Task 2.4.2)

***Abdullah Salih Özgüven:***

- Data Collection and Integration
- Identifying Data Sources (Task 3.1)
- Developing Data Integration Scripts (Task 3.3)

***Selim Albayrak:***

- Marketing and Advertising
- Developing Marketing Strategy (Task 4.1)
- Allocating Advertising Budget (Task 4.3)

### 4.3 Team Collaboration:

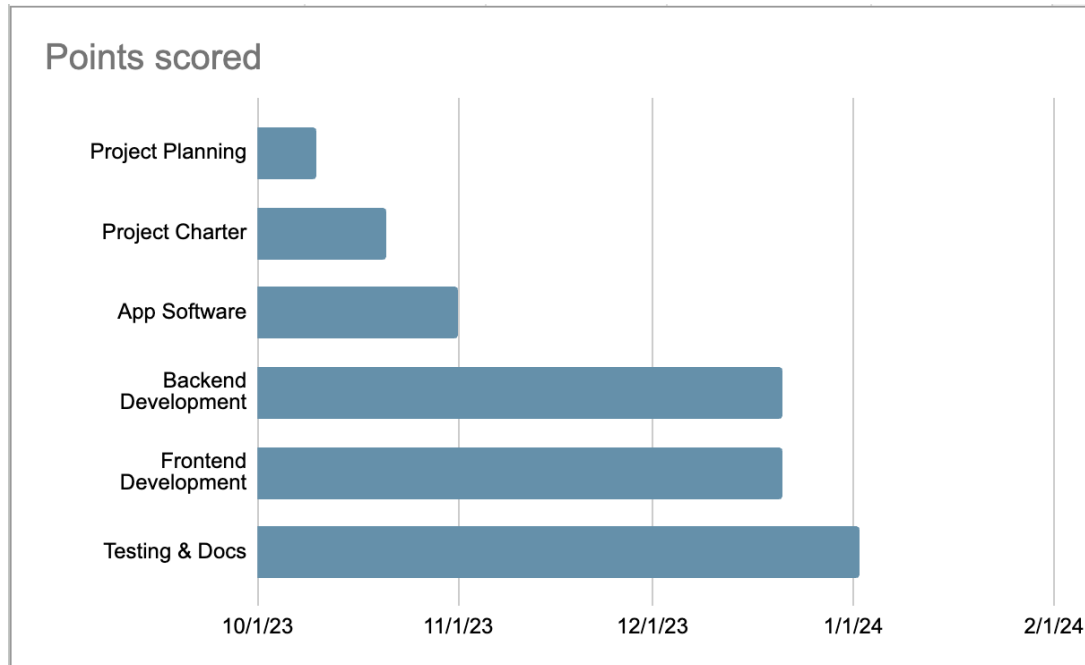
- Regular Meetings: The team will have regular meetings to discuss progress, address challenges, and ensure alignment with project goals.
- Communication Channels: Utilize collaboration tools such as Slack, Trello, or project management software to facilitate communication and project tracking.

## 5. SCHEDULE

### Pert chart

Tasks	WEEKS
<b>Project Planning</b>	2 weeks
1.1 Define project scope	1 week
1.2 Identify project team	1 week
<b>Application Software Development</b>	12 weeks
2.1 Set up development environment	2 weeks
2.2 Design database schema	2 weeks
2.3 Develop backend functionality	
2.3.1 Implement user authentication	1 week
2.3.2 Design and implement data models	2 weeks
2.3.3 Develop API endpoints	2.5 weeks
2.4 Implement frontend components	
2.4.1 Design user interface	2 weeks
2.4.2 Develop user interface components	2 weeks
<b>Data Collection and Integration</b>	6 weeks
3.1 Identify data sources	1 week
3.2 Define data integration processes	2 weeks
3.3 Develop data integration scripts	2 weeks
3.4 Test data integration processes	1 weeks
<b>Marketing and Advertising</b>	5 weeks
4.1 Develop marketing strategy	2 weeks
4.2 Create marketing materials	2 weeks
4.3 Allocate advertising budge	1 week
4.4 Launch advertising campaigns	2 weeks
<b>User Training and Documentation</b>	2 weeks
5.1 Develop user training materials	1 week
5.2 Create support documentation	1 week
<b>Data Sharing Agreements</b>	2 weeks
6.1 Identify logistics companies for data sharing	1 week
6.2 Negotiate and establish data-sharing agreeen	1 week
<b>Security Implementation</b>	3 week
7.1 Identify security requirements	1 week
7.2 Implement encryption protocols	2 weeks
7.3 Conduct security testing	1 week
<b>Performance Optimization</b>	3 weeks
8.1 Identify performance bottlenecks	1 week
8.2 Implement performance optimization measun	2 weeks
8.3 Conduct performance testing	1 week
<b>Usability Testing and Improvement</b>	3 weeks
9.1 Develop usability testing plan	1 week
9.2 Conduct usability testing sessions	2 weeks
9.3 Implement usability improvements	1 week

## Gantt chart



## 6. RISKS

### 6.1 Risk Impact / Probability Chart:

Risk	Risk Description	Probability	Impact
1	Delay in Data Sharing Agreements	Moderate	High
2	Technical Challenges in Backend Development	Low	High
3	Marketing Campaigns Ineffective	Moderate	Moderate



4	Security Vulnerabilities Identified	Low	High
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## 6.2 Risk Mitigation (Aversion) Table:

<b>Risk</b>	<b>Risk Description</b>	<b>Mitigation Plan</b>	<b>Associated Project Activities</b>
1	Delay in Data Sharing Agreements	Establish clear communication channels with logistics companies; Have contingency plans for alternative data sources.	Data Sharing Agreements (Task 6.2)
2	Technical Challenges in Backend Development	Conduct thorough feasibility analysis before starting development; Allocate additional resources if needed.	Backend Development (Task 2.3)
3	Marketing Campaigns Ineffective	Regularly evaluate and adjust marketing strategies based on performance metrics; Have contingency plans for alternative marketing channels.	Marketing and Advertising (Task 4)
4	Security Vulnerabilities Identified	Implement robust security measures during development; Conduct regular security audits and testing.	Security Implementation (Task 7.2)