

Project Schedule Management

- Seoultech GO

Author: Team 1

18102081 Sooh An

18102087 Yeongju Lee

20102119 Boyoung Lim

20102122 Hyoan Jeong

20102128 Yujung Hwang



Contents

1. Schedule Management Plan
2. Changed WBS
3. Activity List and Attributes
4. Milestone List
5. Critical Path Method
6. Gantt Chart

Schedule Management Plan

Project Name: Seoultech GO

Project schedule model development: Our project schedule will be developed using the Critical Path Method (CPM) with the help of project management software such as Microsoft Excel.

Units of measure: The time units used in our project schedule will be in weeks and days. Work hours per day will be set to 8 hours.

Level of accuracy: The level of accuracy for our project schedule should be quite accurate so we will measure the time in days.

Control thresholds: Our project will have a control threshold , which is the variance threshold.

The variance threshold will be set at 10% of the planned duration or 1 week, whichever is less. If any task or activity is delayed beyond this threshold, it will be flagged for corrective action.

Rules of performance measurement: Our project team will use earned value management (EVM) to monitor the project's progress. We will use the following EVM formulas: Planned Value (PV), Actual Cost (AC), Earned Value (EV), Schedule Variance (SV), Cost Variance (CV), Schedule Performance Index (SPI), and Cost Performance Index (CPI).

Reporting formats: Our project team will use a weekly status report to report progress against the project schedule. This report will include the following information:

- Completed tasks and activities
- Tasks and activities in progress
- Tasks and activities behind schedule
- Tasks and activities with upcoming deadlines
- Any risks or issues that could impact the project schedule

The weekly status report will be sent to the project manager, stakeholders, and the project team. In addition, we will have monthly progress meetings with the stakeholders to review the project schedule and make any necessary adjustments.

WBS

1. Initiating

- 1.1 Project Charter
- 1.2 Identify project team and stakeholders
 - 1.2.1 Define roles and responsibilities for project team members
 - 1.2.2 Develop a stakeholder engagement plan
- 1.3 Conduct feasibility analysis
- 1.4 Business Case Development

2. Planning

- 2.1 Scope Statement
- 2.2 Work Breakdown Structure
- 2.3 Project Management Plan
- 2.4 Schedule Management Plan

3. Executing

- 3.1 Computer Vision
 - 3.1.1 Survey Camera List
 - 3.1.2 Initial Test
 - 3.1.3 Selecting One Specific High Resolution Camera Model
 - 3.1.4 Installation
 - 3.1.5 Testing
- 3.2 Sensor Fusion
 - 3.2.1 Survey List of Additional Sensors
 - 3.2.2 Initial Test
 - 3.2.3 Selecting Specific Sensor Models
 - 3.2.4 Installation
 - 3.2.5 Testing
 - 3.2.6 Auto Gate Integration
 - 3.2.7 Testing
- 3.3 RFID
 - 3.3.1 Survey RFID List
 - 3.3.2 Initial Test
 - 3.3.3 Selecting One Specific RFID Model
 - 3.3.4 Installation
 - 3.3.5 Testing
- 3.4 Weight Sensor Integration
 - 3.4.1 Survey Weight Sensor List
 - 3.4.2 Selecting Weight Sensor Model
 - 3.4.3 Installation
 - 3.4.4 Testing

- 3.5 Cloud Computing
 - 3.5.1 Survey Cloud Computing Providers
 - 3.5.2 Selecting Cloud Computing Provider
 - 3.5.3 Developing Cloud Computing Architecture
 - 3.5.4 Cloud Computing Setup and Configuration
 - 3.5.5 Testing and Validation
- 3.6 Mobile App Development
 - 3.6.1 Survey Mobile App Development Platforms
 - 3.6.2 Selecting Mobile App Development Platform
 - 3.6.3 Developing Mobile App
 - 3.6.4 Testing and Validation
- 3.7 Data Analytics
 - 3.7.1 Survey Data Analytics Tools
 - 3.7.2 Selecting Data Analytics Tool
 - 3.7.3 Developing Data Analytics Model
 - 3.7.4 Data Collection and Management
 - 3.7.5 Testing and Validation
- 3.8 Staff Training and Hiring
 - 3.8.1 Recruitment
 - 3.8.2 Staff Training
 - 3.8.3 Customer Assistance Training
- 3.9 Legal Compliance
 - 3.9.1 Data Protection and Privacy Policies
 - 3.9.2 Customer Rights
 - 3.9.3 Regulatory Compliance
- 3.10 Project Benefits Measurement
 - 3.10.1 Benefit Identification
 - 3.10.2 Benefit Quantification
 - 3.10.3 Benefit Tracking
 - 3.10.4 Benefit Realization
- 4. Monitoring & Controlling
 - 4.1 Schedule Monitoring
 - 4.2 Risk management
 - 4.3 Budget Monitoring
 - 4.4 Change Management
- 5. Closing
 - 5.1 Final Project Report
 - 5.2 Project evaluation
 - 5.3 Lessons Learned

Activity List and Attributes

Project Name: Seoultech Go

1. Initiating

WBS	Task	Duration(day)	Milston	2023.03																											
				week 1				week 2				week 3				week 4				week 5				week 6							
				Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed
1	Initiating																														
1.1	Project Charter	5																													
1.2	Identify project team and stakeholders	-																													
1.2.1	Define roles and responsibilities for project team members	3																													
1.2.2	Develop a stakeholder engagement plan	5																													
1.3	Conduct feasibility analysis	10																													
1.4	Business Case Development	5																													

1.1 Project Charter

WBS Item Number: 1.1

WBS Item Name: Project Charter

Predecessors: None

Successors: 1.2 Identify project team and stakeholders

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project manager, key stakeholders

Constraints: None

Imposed Dates: 5 days

Assumptions: Project charter will be approved by relevant stakeholders.

1.2 Identify project team and stakeholders

WBS Item Number: 1.2.1

WBS Item Name: Define roles and responsibilities for project team members

Predecessors: 1.1 Project Charter

Successors: 1.2.2 Develop a stakeholder engagement plan

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project manager, HR department

Constraints: Availability of project team members

Imposed Dates: 3 days

Assumptions: HR department will provide necessary resources for defining roles and responsibilities.

WBS Item Number: 1.2.2

WBS Item Name: Develop a stakeholder engagement plan

Predecessors: 1.2.1 Define roles and responsibilities for project team members

Successors: 1.3 Conduct feasibility analysis

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project manager, stakeholder management software

Constraints: Availability of stakeholders

Imposed Dates: 5 days

Assumptions: Stakeholder management software will be available for use.

1.3 Conduct feasibility analysis

WBS Item Number: 1.3

WBS Item Name: Conduct feasibility analysis

Predecessors: 1.2.2 Develop a stakeholder engagement plan

Successors: 1.4 Business Case Development

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Feasibility analysis team, relevant data sources

Constraints: Availability of data sources

Imposed Dates: 10 days

Assumptions: Relevant data sources will be available for use.

1.4 Business Case Development

WBS Item Number: 1.4

WBS Item Name: Business Case Development

Predecessors: 1.3 Conduct feasibility analysis

Successors: 2.0 Planning

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Business analyst, relevant financial data

Constraints: Availability of financial data

Imposed Dates: 5 days

Assumptions: Relevant financial data will be available for use.

2. Planning

2	Planning			
2.1	Scope Statement	5		
2.2	Work Breakdown Structure	7		
2.3	Project Management Plan	8		
2.4	Schedule Management Plan	5		
3	Executing			

2.1 Scope Statement

WBS Item Number: 2.1

WBS Item Name: Scope Statement

Predecessors: 1.4 Business Case Development

Successors: 2.2 Work Breakdown Structure

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project manager, relevant stakeholders

Constraints: None

Imposed Dates: 5 days

Assumptions: Scope statement will be approved by relevant stakeholders.

2.2 Work Breakdown Structure

WBS Item Number: 2.2

WBS Item Name: Work Breakdown Structure

Predecessors: 2.1 Scope Statement

Successors: 2.3 Project Management Plan, 2.4 Schedule Management Plan

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project team, subject matter experts

Constraints: Budget, schedule

Imposed Dates: 7 days

Assumptions: Work packages can be completed within the project timeline and budget

2.3 Project Management Plan

WBS Item Number: 2.3

WBS Item Name: Project Management Plan

Predecessors: 2.2 Work Breakdown Structure

Successors: 3.0 Executing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project team, subject matter experts

Constraints: Budget, schedule

Imposed Dates: 8 days

Assumptions: Project management processes have been defined and approved

2.4 Schedule Management Plan

WBS Item Number: 2.4

WBS Item Name: Schedule Management Plan

Predecessors: 2.2 Work Breakdown Structure

Successors: 3. Executing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Project team, subject matter experts

Constraints: Budget, schedule

Imposed Dates: 5 days

Assumptions: Activities have been defined and sequenced, activity durations have been estimated

3. Executing

WBS	Task	Duration(day)	Milestone	2023 05														2023 06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				week 11		week 12		week 13		week 14		week 15		week 16		week 17		week 18		week 19		week 20		week 21																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
3	Executing			Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed

3.1 Computer Vision

WBS Item Number: 3.1.1

WBS Item Name: Survey Camera List

Predecessors: 2.3 Project Management Plan, 2.4 Schedule Management Plan

Successors: 3.1.2 Initial Test

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Computer vision experts, surveying equipment

Constraints: Cost, compatibility with other systems

Imposed Dates: 5 days

Assumptions: Surveying will provide accurate information for camera selection

WBS Item Number: 3.1.2

WBS Item Name: Initial Test

Predecessors: 3.1.1 Survey Camera List

Successors: 3.1.3 Selecting One Specific High Resolution Camera Model

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Computer vision experts, testing equipment

Constraints: Cost, compatibility with other systems

Imposed Dates: 3 days

Assumptions: Initial testing will provide valuable information for camera selection

WBS Item Number: 3.1.3

WBS Item Name: Selecting One Specific High Resolution Camera Model

Predecessors: 3.1.2 Initial Test

Successors: 3.1.4 Installation

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Computer vision experts, camera vendor information

Constraints: Cost, compatibility with other systems

Imposed Dates: 5 days

Assumptions: Selected camera model will meet project requirements

WBS Item Number: 3.1.4

WBS Item Name: Installation

Predecessors: 3.1.3 Selecting One Specific High Resolution Camera Model

Successors: 3.1.5 Testing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Installation experts, camera vendor information

Constraints: Cost, compatibility with other systems

Imposed Dates: 7 days

Assumptions: Installation will be successful

WBS Item Number: 3.1.5

WBS Item Name: Testing

Predecessors: 3.1.4 Installation

Successors: 3.6.3 Developing Mobile App

Logical Relationships: Finish-to-Start

Leads and Lags: Lags 14 days

Resource Requirements: Computer vision experts, testing equipment

Constraints: Cost, compatibility with other systems

Imposed Dates: 5 days

Assumptions: Testing will confirm camera functionality

3.2 Sensor Fusion

WBS Item Number: 3.2.1

WBS Item Name: Survey List of Additional Sensors

Predecessors: 2.4 Schedule Management Plan

Successors: 3.2.2 Initial Test

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Research team, internet connection, relevant publications and documentation

Constraints: Limited time and budget

Imposed Dates: 5 days

Assumptions: Adequate information and options will be available for selecting additional sensors.

WBS Item Number: 3.2.2

WBS Item Name: Initial Test

Predecessors: 3.2.1 Survey List of Additional Sensors

Successors: 3.2.3 Selecting Specific Sensor Models

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Prototyping equipment, testing environment, research team

Constraints: Limited time and budget, availability of sensor samples

Imposed Dates: 3 days

Assumptions: The initial testing will provide sufficient information for selecting specific sensor models.

WBS Item Number: 3.2.3

WBS Item Name: Selecting Specific Sensor Models

Predecessors: 3.2.2 Initial Test

Successors: 3.2.5 Testing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Research team, market research, supplier communication

Constraints: Limited time and budget, availability of sensor models

Imposed Dates: 5 days

Assumptions: Adequate options will be available for selecting specific sensor models.

WBS Item Number: 3.2.5

WBS Item Name: Testing

Predecessors: 3.2.3 Selecting Specific Sensor Models

Successors: 3.2.6 Auto Gate Integration

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Testing environment, testing equipment, research team

Constraints: Limited time and budget, availability of testing equipment

Imposed Dates: 14 days

Assumptions: Adequate time and resources will be available for comprehensive testing.

WBS Item Number: 3.2.6

WBS Item Name: Auto Gate Integration

Predecessors: 3.2.5 Testing

Successors: 3.2.7 Testing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Integration equipment, research team, testing environment

Constraints: Limited time and budget, availability of integration equipment

Imposed Dates: 5 days

Assumptions: Adequate information and equipment will be available for successful integration.

WBS Item Number: 3.2.7

WBS Item Name: Testing

Predecessors: 3.2.6 Auto Gate Integration

Successors: 3.6.3 Developing Mobile App

Logical Relationships: Finish-to-Start

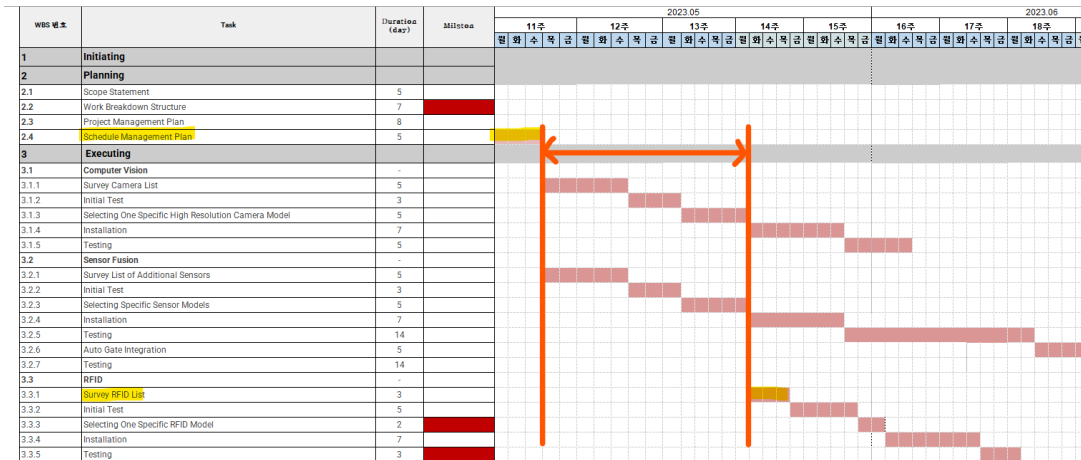
Leads and Lags: Leads 8 days

Resource Requirements: Testing environment, testing equipment, research team

Constraints: Limited time and budget, availability of testing equipment

Imposed Dates: 14 days

Assumptions: Adequate time and resources will be available for comprehensive testing.



3.3 RFID

WBS Item Number: 3.3.1

WBS Item Name: Survey RFID List

Predecessors: 2.4. Schedule Management Plan

Successors: 3.3.2 Initial Test

Logical Relationships: Finish-to-Start

Leads and Lags: Lags 19 days

Resource Requirements: RFID experts, survey tools

Constraints: Limited budget and time

Imposed Dates: 3 days

Assumptions: Availability of various RFID models in the market

WBS Item Number: 3.3.2

WBS Item Name: Initial Test

Predecessors: 3.3.1 Survey RFID List

Successors: 3.3.3 Selecting One Specific RFID Model

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: RFID model, testing equipment

Constraints: Limited budget and time

Imposed Dates: 5 days

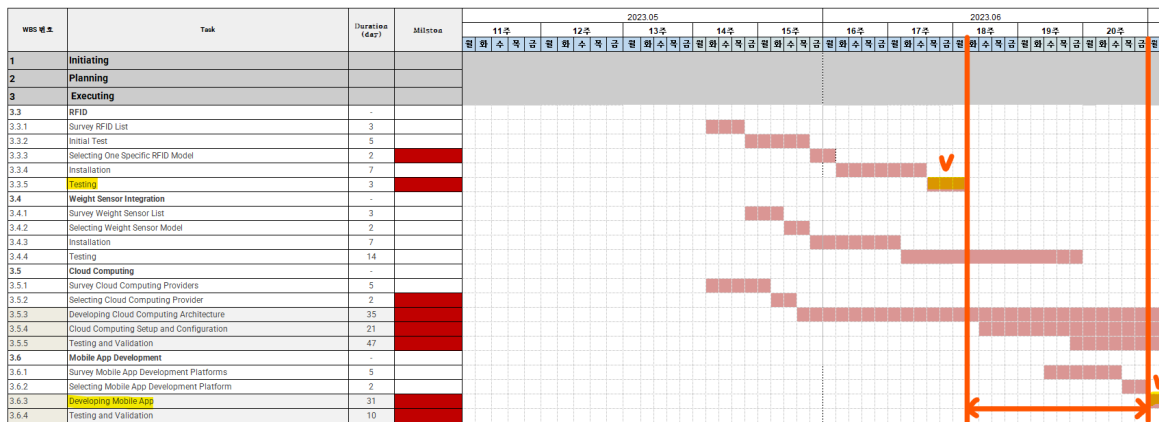
Assumptions: Availability of the RFID model for testing

WBS Item Number: 3.3.3

WBS Item Name: Selecting One Specific RFID Model

Predecessors: 3.3.2 Initial Test
Successors: 3.3.4 Installation
Logical Relationships: Finish-to-Start
Leads and Lags: None
Resource Requirements: RFID model, technical specifications
Constraints: Limited budget and time
Imposed Dates: 2 days
Assumptions: The availability of the selected RFID model in the market.

WBS Item Number: 3.3.4
WBS Item Name: Installation
Predecessors: 3.3.3 Selecting One Specific RFID Model
Successors: 3.3.5 Testing
Logical Relationships: None
Leads and Lags: None
Resource Requirements: RFID Reader, RFID Antenna, Cables, Power Source, Mounting Hardware, Tools, Installation Personnel
Constraints: Compatibility with selected RFID model, Availability of installation personnel and resources
Imposed Dates: 7 days
Assumptions: Proper configuration and setup of RFID reader and antenna will be done during the installation process.



WBS Item Number: 3.3.5
WBS Item Name: Testing
Predecessors: 3.3.4 Installation
Successors: 3.6.3 [Developing Mobile App](#)
Logical Relationships: Finish-to-Start
Leads and Lags: lags 20 days
Resource Requirements: RFID Tag, RFID Reader, Test Data, Test Personnel
Constraints: Compatibility with selected RFID model, Availability of test personnel and resources
Imposed Dates: 3 days
Assumptions: Proper installation and configuration of RFID reader and antenna has been completed prior to testing.

WBS 번호	Task	Duration (day)	Milestone	2023.05																												
				11주					12주					13주					14주					15주								
				월	화	수	목	금	월	화	수	목	금	월	화	수	목	금	월	화	수	목	금	월	화	수	목	금	월	화	수	목
1	Initiating																															
2	Planning																															
2.1	Scope Statement	5																														
2.2	Work Breakdown Structure	7																														
2.3	Project Management Plan	8																														
2.4	Schedule Management Plan	5																														
3	Executing																															
3.3	RFID	-																														
3.3.1	Survey RFID List	3																														
3.3.2	Initial Test	5																														
3.3.3	Selecting One Specific RFID Model	2																														
3.3.4	Installation	7																														
3.3.5	Testing	3																														
3.4	Weight Sensor Integration	-																														
3.4.1	Survey Weight Sensor List	3																														
3.4.2	Selecting Weight Sensor Model	2																														
3.4.3	Installation	7																														
3.4.4	Testing	14																														

3.4 Weight Sensor Integration

WBS Item Number: 3.4.1

WBS Item Name: Survey Weight Sensor List

Predecessors: 2.4. Schedule Management Plan

Successors: 3.4.2 Selecting Weight Sensor Model

Logical Relationships: Finish-to-Start

Leads and Lags: lags 22 days

Resource Requirements: Weight Sensor experts, survey tools

Constraints: None

Imposed Dates: 3 days

Assumptions: Availability of weight sensor experts and relevant survey tools.

WBS Item Number: 3.4.2

WBS Item Name: Selecting Weight Sensor Model

Predecessors: 3.4.1 Survey Weight Sensor List

Successors: 3.4.3 Installation

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Weight Sensor experts, evaluation criteria

Constraints: None

Imposed Dates: 2 days

Assumptions: Availability of relevant weight sensor experts and evaluation criteria.

WBS Item Number: 3.4.3

WBS Item Name: Installation

Predecessors: 3.4.2 Selecting Weight Sensor Model

Successors: 3.4.4 Testing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Weight Sensor, Tools, Installation Personnel

Constraints: None

Imposed Dates: 7 days

Assumptions: Proper configuration and setup of weight sensor and antenna will be done during the installation process

WBS Item Number: 3.4.4

WBS Item Name: Testing

Predecessors: 3.4.3 Installation

Successors: 3.6.3 Developing Mobile App

Logical Relationships: Finish-to-Start

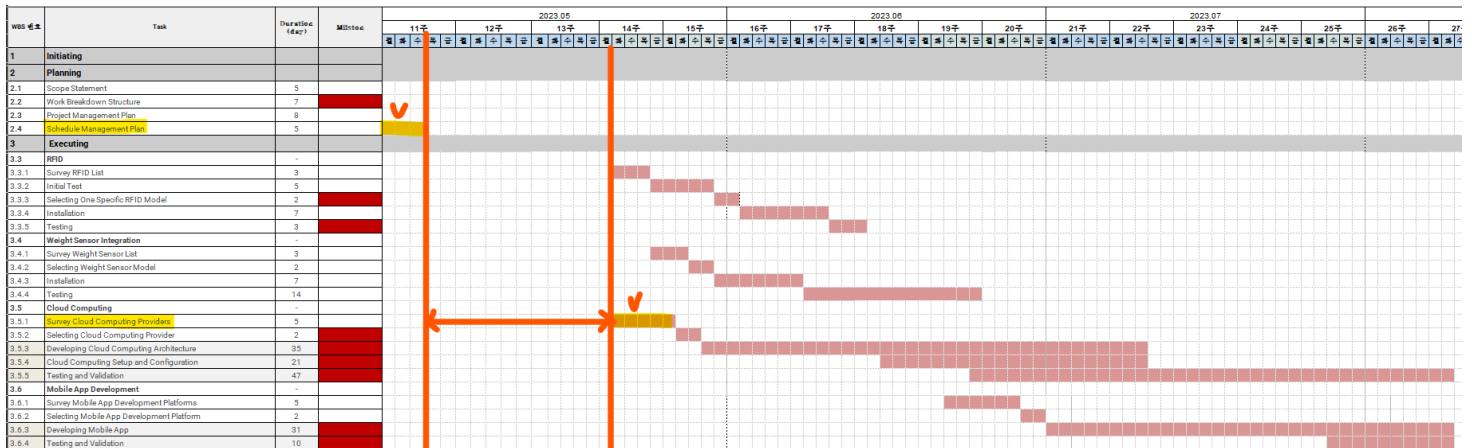
Leads and Lags: Lags 9 days

Resource Requirements: Weight Sensor, Test Data, Test Personnel

Constraints: None

Imposed Dates: 14 days

Assumptions: Proper installation and configuration of weight sensor has been completed prior to testing.



3.5 Cloud Computing

WBS Item Number: 3.5.1

WBS Item Name: Survey Cloud Computing Providers

Predecessors: 2.4 Schedule Management Plan

Successors: 3.5.2 Selecting Cloud Computing Provider

Logical Relationships: Finish-to-Start

Leads and Lags: Lags 19 days

Resource Requirements: Cloud computing experts, survey tools

Constraints: None

Imposed Dates: 5 days

Assumptions: Availability of cloud computing experts and relevant survey tools.

WBS Item Number: 3.5.2

WBS Item Name: Selecting Cloud Computing Provider

Predecessors: 3.5.1 Survey Cloud Computing Providers

Successors: 3.5.3 Developing Cloud Computing Architecture

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Cloud computing experts, evaluation criteria

Constraints: Budget limitations, availability of providers

Imposed Dates: 2 days

Assumptions: Availability of relevant cloud computing experts and evaluation criteria.

WBS Item Number: 3.5.3

WBS Item Name: Developing Cloud Computing Architecture

Predecessors: 3.5.2 Selecting Cloud Computing Provider

Successors: 3.5.4 Cloud Computing Setup and Configuration

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Cloud computing experts, architectural design tools

Constraints: Technical limitations of the selected provider, budget limitations

Imposed Dates: 35 days

Assumptions: Availability of relevant cloud computing experts and architectural design tools.

WBS Item Number: 3.5.4

WBS Item Name: Cloud Computing Setup and Configuration

Predecessors: 3.5.3 Developing Cloud Computing Architecture

Successors: 3.5.5 Testing and Validation

Logical Relationships: Finish-to-Finish

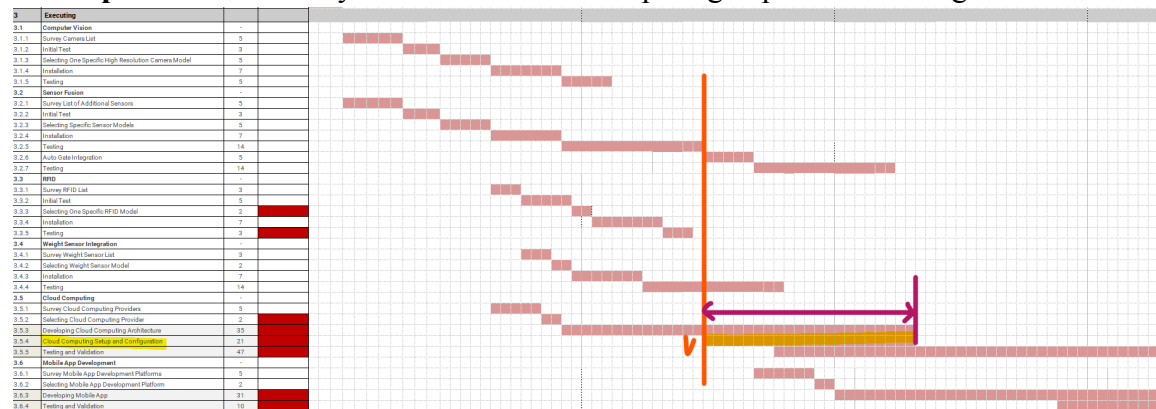
Leads and Lags: Lead 29 days

Resource Requirements: Cloud computing experts, configuration tools

Constraints: Technical limitations of the selected provider, budget limitations

Imposed Dates: 21 days

Assumptions: Availability of relevant cloud computing experts and configuration tools.



WBS Item Number: 3.5.5

WBS Item Name: Testing and Validation

Predecessors: 3.5.3 Developing Cloud Computing Architecture, 3.5.4 Cloud Computing Setup and Configuration

Successors: 3.6.4 Mobile Application Testing and Validation

Logical Relationships: Finish-to-Finish

Leads and Lags: Lead 20 days

Resource Requirements: Cloud computing experts, testing tools

Constraints: Technical limitations of the selected provider, budget limitations

Imposed Dates: 47 days

Assumptions: Availability of relevant cloud computing experts and testing tools.

3.6 Mobile App Development

WBS Item Number: 3.6.1

WBS Item Name: Survey Mobile App Development Platforms

Predecessors: 2.4 Schedule Management Plan

Successors: 3.6.2 Selecting Mobile App Development Platform

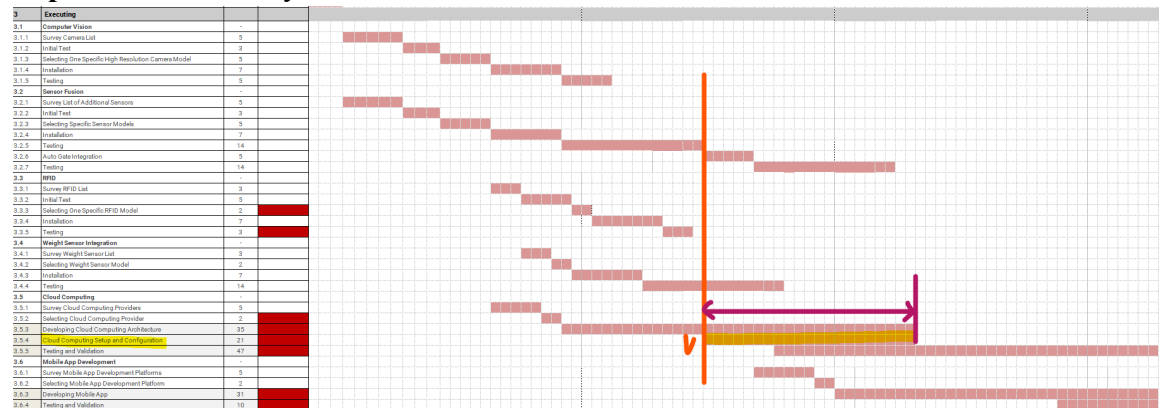
Logical Relationships: Finish-to-Start

Leads and Lags: Lags 51 days

Resource Requirements: Market research tools, experts in mobile app development, project manager

Constraints: Limited budget and time constraints.

Imposed Dates: 6 days



Assumptions: The team assumes that there are enough resources and experts available in the market to conduct a thorough survey of mobile app development platforms.

WBS Item Number: 3.6.2

WBS Item Name: Selecting Mobile App Development Platform

Predecessors: 3.6.1 Survey Mobile App Development Platforms

Successors: 3.6.3 Developing Mobile App

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Experts in mobile app development, project manager

Constraints: Limited budget and time constraints.

Imposed Dates: 2 days

Assumptions: The team assumes that the selected mobile app development platform will be able to meet the requirements of the project and have a good support community.

WBS Item Number: 3.6.3

WBS Item Name: Developing Mobile App

Predecessors: 3.1.5 Computer Vision Testing, 3.2.7 Auto Gate Testing, 3.3.5 RFID Testing, 3.4.4 Weight Sensor Integration Testing, 3.6.2 Selecting Mobile App Development Platform

Successors: 3.6.4 Testing and Validation

Logical Relationships: Finish-to-Start

Leads and Lags: Leads 8 days

Resource Requirements: Mobile app development tools, mobile app developers, project manager

Constraints: Limited budget and time constraints.

Imposed Dates: 31 days

Assumptions: The team assumes that the mobile app developers will have the required skills and expertise to develop the app.

WBS Item Number: 3.6.4

WBS Item Name: Testing and Validation

Predecessors: 3.5.5 Cloud Computing Testing and Validation, 3.6.3 Developing Mobile App

Successors: 5. Closing

Logical Relationships: Finish-to-Finish

Leads and Lags: Leads 10 days

Resource Requirements: Testers, end-users, project manager

Constraints: Limited budget and time constraints.

Imposed Dates: 10 days

Assumptions: The team assumes that there will be enough end-users available to test the app and provide feedback.

3.7 Data Analytics

WBS Item Number: 3.7.1

WBS Item Name: Survey Data Analytics Tools

Predecessors: 3.1.5 Computer Vision Testing, 3.2.5 Sensor Fusion Testing

Successors: 3.7.2 Selecting Data Analytics Tool

Logical Relationships: Finish-to-Start

Leads and Lags: Leads 3 days

Resource Requirements: Data analyst, survey software, computer

Constraints: Time and budget

Imposed Dates: 3 days

Assumptions: Adequate data analytics tools exist in the market that meet the project's requirements.

WBS Item Number: 3.7.2

WBS Item Name: Selecting Data Analytics Tool

Predecessors: 3.7.1 Survey Data Analytics Tools

Successors: 3.7.3 Developing Data Analytics Model

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Data analyst, access to data analytics tools, computer

Constraints: Budget and technical requirements

Imposed Dates: 2 days

Assumptions: The selected data analytics tool will meet the project's requirements.

WBS Item Number: 3.7.3

WBS Item Name: Developing Data Analytics Model

Predecessors: 3.7.2 Selecting Data Analytics Tool

Successors: 3.7.4 Data Collection and Management

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Data analyst, data analytics tool, computer

Constraints: Technical requirements and data availability

Imposed Dates: 44 days

Assumptions: The selected data analytics tool is suitable for developing the required model.

WBS Item Number: 3.7.4

WBS Item Name: Data Collection and Management

Predecessors: 3.7.3 Developing Data Analytics Model

Successors: 3.7.5 Testing and Validation

Logical Relationships: Finish-to-Start

Leads and Lags: Leads 33 days

Resource Requirements: Data analyst, data collection and management software, computer

Constraints: Technical requirements and data availability

Imposed Dates: 52 days

Assumptions: Adequate data is available for collection and management.

WBS Item Number: 3.7.5

WBS Item Name: Testing and Validation

Predecessors: 3.7.3 Developing Data Analytics Model, 3.7.4 Data Collection and Management

Successors: 3.6.4 Mobile App Testing and Validation

Logical Relationships: Finish-to-Start

Leads and Lags: Leads 46 days

Resource Requirements: Data analyst, data analytics software, computer

Constraints: Technical requirements and time

Imposed Dates: 56 days

Assumptions: Adequate data is available for testing and validation.

3.8 Staff Training and Hiring

WBS Item Number: 3.8.1

WBS Item Name: Recruitment

Predecessors: 2.4. Schedule Management Plan

Successors: 3.8.2 Staff Training

Logical Relationships: Finish-to-Start

Leads and Lags: Lags 43 days

Resource Requirements: Human resources, recruitment tools (job posting platforms, applicant tracking system, etc.), hiring managers

Constraints: Budget limitations, availability of qualified candidates

Imposed Dates: 7 days

Assumptions: There will be a sufficient number of qualified candidates available to fill open positions.

WBS Item Number: 3.8.2

WBS Item Name: Staff Training

Predecessors: 3.8.1 Recruitment

Successors: 3.8.3 Customer Assistance Training

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Trainers, training materials, training facilities or software

Constraints: Budget limitations, time constraints

Imposed Dates: 5 days

Assumptions: All staff members will be available to attend training at the scheduled time.

WBS Item Number: 3.8.3

WBS Item Name: Customer Assistance Training

Predecessors: 3.8.2 Staff Training

Successors: 5. Closing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Trainers, training materials, training facilities or software

Constraints: Budget limitations, time constraints

Imposed Dates: 1 day

Assumptions: All staff members will be available to attend training at the scheduled time.

3.9 Legal Compliance

WBS Item Number: 3.9.1

WBS Item Name: Data Protection and Privacy Policies

Predecessors: 4.2 Risk Management

Successors: 3.9.3 Regulatory Compliance

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Legal experts, policy development tools

Constraints: Compliance with legal and regulatory requirements

Imposed Dates: 4 days

Assumptions: None

WBS Item Number: 3.9.2

WBS Item Name: Customer Rights

Predecessors: 4.2 Risk Management

Successors: 3.9.3 Regulatory Compliance

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Legal experts, policy development tools

Constraints: Compliance with legal and regulatory requirements

Imposed Dates: 3 days

Assumptions: None

WBS Item Number: 3.9.3

WBS Item Name: Regulatory Compliance

Predecessors:

Completion of the development of the data protection and privacy policies (WBS Item 3.9.1)

Completion of the customer rights activities (WBS Item 3.9.2)

Successors: 5. Closing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements:

- Compliance experts
- Legal experts

Constraints: Compliance with applicable laws and regulations

Imposed Dates: 3 days

Assumptions:

The company has access to the necessary resources to ensure compliance with relevant laws and regulations.

3.10 Project Benefits Measurement

WBS Item Number: 3.10.1

WBS Item Name: Benefit Identification

Predecessors: 3.9.3 Regulatory Compliance

Successors: 3.10.2 Benefit Quantification

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Benefit identification team, data analysis tools

Constraints: None

Imposed Dates: 3 days

Assumptions: Sufficient data available for analysis

WBS Item Number: 3.10.2

WBS Item Name: Benefit Quantification

Predecessors: 3.10.1 Benefit Identification

Successors: 3.10.3 Benefit Tracking

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Benefit quantification team, data analysis tools

Constraints: None

Imposed Dates: 4 days

Assumptions: Accurate and reliable data available for analysis

3.10.3 Benefit Tracking

WBS Item Number: 3.10.3

WBS Item Name: Benefit Tracking

Predecessors: 3.10.2 Benefit Quantification

Successors: 3.10.4 Benefit Realization

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Benefit tracking team, project management tools

Constraints: None

Imposed Dates: 3 days

Assumptions: Accurate and timely data available for tracking

WBS Item Number: 3.10.4

WBS Item Name: Benefit Realization

Predecessors: 3.10.3 Benefit Tracking

Successors: 5. Closing

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Benefit realization team, project management tools

Constraints: None

Imposed Dates: 4 days

Assumptions: All benefits have been tracked accurately and realized

4. Monitoring & Controlling

WBS Item Number: 4.1

WBS Item Name: Schedule Monitoring

Predecessors: None

Successors: None

Logical Relationships: None

Leads and Lags: None

Resource Requirements: Project manager, project management tools

Constraints: None

Imposed Dates: Throughout the project (about 162 days)

Assumptions: None

WBS Item Number: 4.2

WBS Item Name: Risk management

Predecessors: None

Successors: None

Logical Relationships: None

Leads and Lags: None

Resource Requirements: Risk management team, project management tools

Constraints: None

Imposed Dates: Throughout the project

Assumptions: All potential risks have been identified and analyzed

WBS Item Number: 4.3

WBS Item Name: Budget Monitoring

Predecessors: None

Successors: None

Logical Relationships: None

Leads and Lags: None

Resource Requirements: Project manager, financial management tools

Constraints: None

Imposed Dates: Throughout the project

Assumptions: None

WBS Item Number: 4.4

WBS Item Name: Change Management

Predecessors: None

Successors: None

Logical Relationships: None

Leads and Lags: None

Resource Requirements: Change management team, project management tools

Constraints: None

Imposed Dates: Throughout the project

Assumptions: Change requests will be evaluated and implemented as necessary

5. Closing

WBS Item Number: 5.1

WBS Item Name: Final Project Report

Predecessors: 3.6.3 Survey Mobile App Development Platforms, 3.6.4 Testing and Validation

Successors: 5.2 Project Evaluation

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Report writing software, Project documents

Constraints: None

Imposed Dates: 4 days

Assumptions: Completion of all project activities

WBS Item Number: 5.2

WBS Item Name: Project Evaluation

Predecessors: 5.1 Final Project Report

Successors: 5.3 Lessons Learned

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Evaluation software, Evaluation criteria

Constraints: None

Imposed Dates: 3 days

Assumptions: Completion of project activities and submission of the final project report.

WBS Item Number: 5.3

WBS Item Name: Lessons Learned

Predecessors: 5.2 Project evaluation

Successors: None

Logical Relationships: Finish-to-Start

Leads and Lags: None

Resource Requirements: Facilitator, Meeting Space, Recording Tools, Feedback Forms

Constraints: None

Imposed Dates: 2 days

Assumptions: Completion of project activities, submission of final project report, and completion of project evaluation.

Milestone List

Project Name: Seoultech Go

Milestone	Estimated Completion Date
1. Completion of project charter and approval	March 6
2. Completion of conducting feasibility analysis	March 25
3. Completion of work breakdown structure	April 13
4. Completion of procurement of RFID equipment	May 19
5. Completion of installation and testing of RFID equipment	June 11
6. Completion of selection of cloud computing provider	May 18
7. Completion of development of cloud computing architecture	June 1
8. Completion of cloud computing setup and configuration	June 8
9. Completion of testing and validation of cloud computing	August 8
10. Completion of development of mobile app	August 8
11. Completion of testing and validation of mobile app	August 8
12. Completion of development of data analytics model	July 19
13. Completion of data collection and management	July 31
14. Completion of testing and validation of data analytics	August 4

15. Completion of recruitment	June 8
16. Completion of staff training	June 13
17. Completion of data protection and privacy policies	June 19
18. Completion of customer rights policies	June 22
19. Completion of regulatory compliance	June 25
20. Completion of final project report	August 11
21. Completion of project evaluation	August 13

Milestones are *critical points* that must be *taken* to ensure project success because they represent key achievements or goals that need to be met to keep the project on track. They provide a way for the project team to track progress, monitor timelines, and make adjustments as needed to ensure successful project completion. Additionally, milestones can be used to communicate project status to stakeholders and help ensure that everyone involved in the project is aligned on its goals and progress.

Importance of each milestone

Completion of project charter and approval: It officially initiates the project and ensures that all stakeholders are aligned on the project goals, scope, timeline, and budget.

Completion of conducting feasibility analysis: It helps to determine the viability and potential success of the project, based on factors such as market demand, technical feasibility, and financial feasibility.

Completion of work breakdown structure: It breaks down the project into smaller, manageable tasks and helps to identify dependencies and critical path activities.

Completion of procurement of RFID equipment: It ensures that the necessary hardware is available to support the project activities.

Completion of installation and testing of RFID equipment: It ensures that the hardware is properly installed and functioning as expected.

Completion of selection of cloud computing provider: It determines the vendor who will provide cloud computing services, which is a critical aspect of the project.

Completion of development of cloud computing architecture: It determines the framework and structure of the cloud computing environment, which will affect the performance and scalability of the system.

Completion of cloud computing setup and configuration: It ensures that the cloud computing environment is properly configured and integrated with other systems.

Completion of testing and validation of cloud computing: It ensures that the cloud computing environment is functioning as expected and meeting performance requirements.

Completion of development of mobile app: It delivers the product that end-users will interact with, and it needs to be functional, user-friendly, and meet all requirements.

Completion of testing and validation of mobile app: It ensures that the mobile app is functioning as expected and meets all requirements before it is released to end-users.

Completion of development of data analytics model: It determines how data will be analyzed and used to make informed decisions.

Completion of data collection and management: It ensures that data is being properly collected, stored, and managed.

Completion of testing and validation of data analytics: It ensures that the data analytics model is functioning as expected and meeting all requirements.

Completion of recruitment: It ensures that the project team is complete with the necessary expertise and resources.

Completion of staff training: It ensures that the project team has the knowledge and skills necessary to complete the project successfully.

Completion of data protection and privacy policies: It ensures that customer data is being handled responsibly and with privacy in mind.

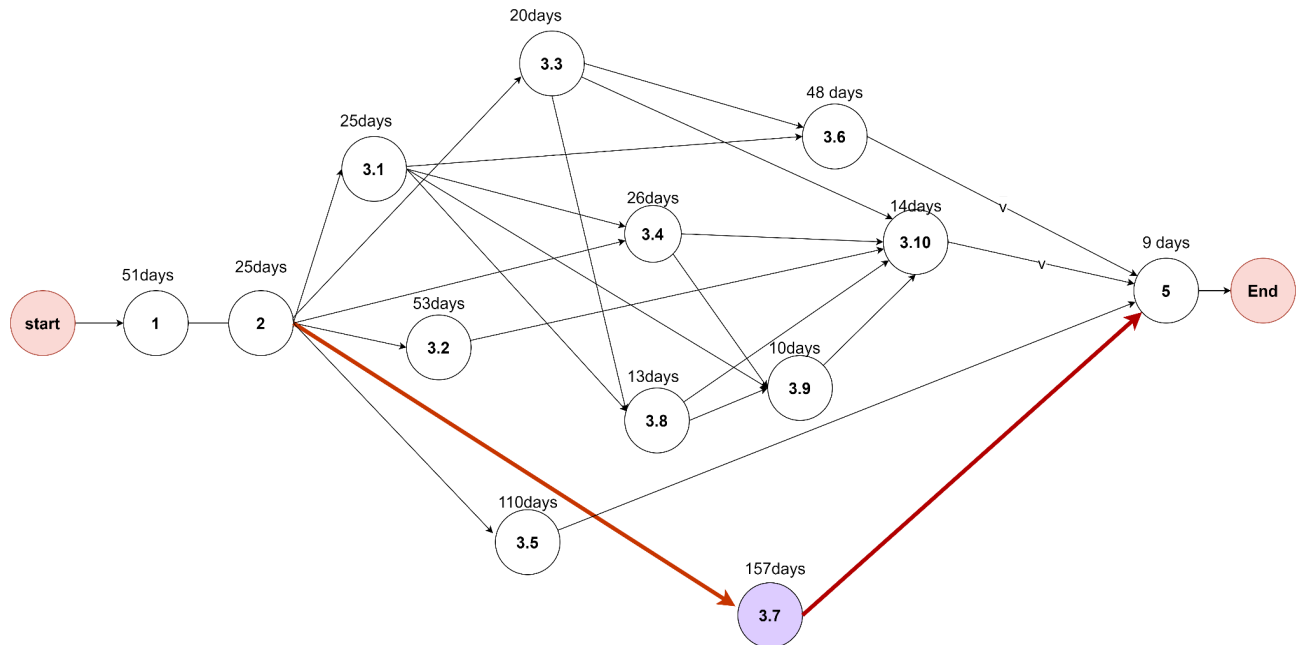
Completion of customer rights policies: It ensures that customer rights are being respected and that they are aware of their rights in relation to the project.

Completion of regulatory compliance: It ensures that the project is adhering to all applicable laws and regulations.

Completion of final project report: It summarizes the project outcomes and provides a comprehensive analysis of project performance.

Completion of project evaluation: It allows stakeholders to reflect on the project outcomes and identify areas for improvement in future projects.

Critical Path Method



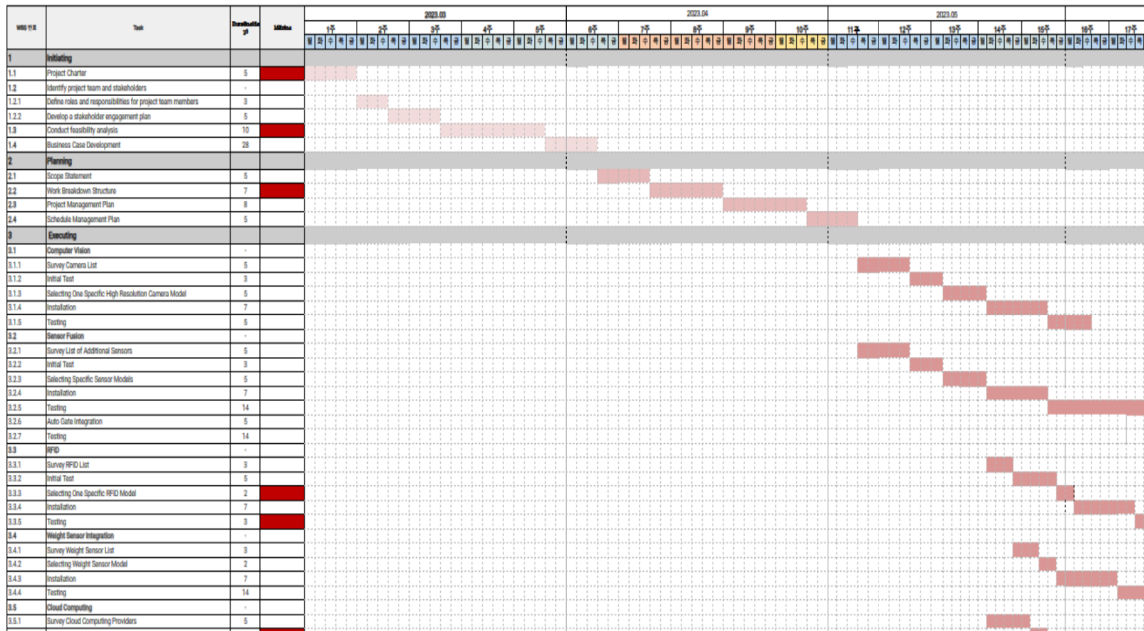
1	Initiating	3.4	Weight Sensor Integration	3.9	Legal Compliance
2	Planning	3.5	Cloud Computing	3.10	Project Benefits Measurement
3.1	Computer Vision	3.6	Mobile App Development	5	Closing
3.2	Sensor Fusion	3.7	Data Analytics		
3.3	RFID	3.8	Staff Training and Hiring		

Critical Path (CP) is defined as the longest estimated sequence of interdependent activities that should be accomplished on time to ensure completion of the project on due-date. The critical path activities are performed under the “predecessor-successor” relationship, so that any next activity cannot be started until its predecessor is complete. **Critical Path** of our project is Node 1 -> Node 2 -> Node 3.7 -> Node 5 -> End (242 days)

Gantt Chart

Gantt Chart

Project Name: Decathlon 800	
Project Manager: Yungui Tsao	



<https://onedrive.live.com/edit.aspx?resid=9A95519A5410F9B9!2483&ithint=file%2cxlsx&authkey=!AHHAq2rzTpahnUc>