

# Planning and Progress Report



**Acme AirNav Solutions, Inc**

Group Number: C1.066

Repository: <https://github.com/mquirosq/DP2-C1.066>

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# Contents

<b>Executive Summary</b>	<b>2</b>
<b>Revision History</b>	<b>3</b>
<b>1 Introduction</b>	<b>4</b>
<b>2 Planning</b>	<b>4</b>
2.1 Tasks listing . . . . .	4
2.2 Planning methodology . . . . .	12
2.3 Budget . . . . .	14
<b>3 Progress</b>	<b>16</b>
3.1 Progress records . . . . .	16
3.2 Conflicts . . . . .	16
3.3 Cost comparison . . . . .	16
<b>4 Conclusions</b>	<b>17</b>

## Executive Summary

This document presents the Planning and Progress Report for Delivery 01, detailing the approach taken to plan, execute and monitor the project. It provides an overview of the tasks performed, the methodology applied, and a comparison of estimated and actual project costs.

In the Planning section, the report details the tasks performed, the methodology used to organize and ensure quality, and the estimated budget. A planning dashboard in GitHub was used to track task progress. The budget estimation covers personnel costs based on roles and amortization expenses for necessary resources, with a final estimated budget of **1290,43 euros**.

The Progress section makes use of the performance indicators defined in the Chartering Report [1] to track progress. The actual time spent per role was also recorded and compared against initial estimates. The personnel cost was higher than expected (**1.352,39 euros**), resulting in a deviation of **175,06 euros**. This demonstrates the need of improving the estimations in the following delivery. No additional expenses were incurred, keeping the amortization cost at **113,10 euros**, leading to a final project cost of **1465,49 euros**.

The report concludes with the intent to apply the insights and lessons learned during this delivery to improve efficiency in future project deliveries.

## Revision History

Revision	Date	Description
1.0	2025-02-19	Initial draft
1.1	2025-02-20	Added budget and task listing

## 1. Introduction

This document describes the approach taken by our team to plan, execute and monitor the project's development. The report provides an overview of the tasks performed, the methodologies applied and records the team's progress. Additionally, it includes a budget and compares the estimated and actual costs of the project.

The Planning section details the tasks performed, and the methodology used to organize and track tasks on the planning board. It also includes a budget plan, detailing the estimated hours worked per role and their corresponding monetary cost.

The Progress section details how the team advanced towards the project's objective. This includes insights on the team's performance using the indicators defined in the Chartering Report. It also provides a comparison between the estimated budget of the project and the actual costs.

As mentioned, the document is structured in two major sections: Planning and Progress. In the planning section, a list of completed tasks is provided, the planning and development methodology (including screen captures of the planning dashboard at various stages) is described, and the budget. The Progress section covers the team's performance records, any conflicts faced, and a comparison of the actual costs with the initial budget.

## 2. Planning

### 2.1. Tasks listing

During the project, the following tasks have been performed. Some tasks do not have a final actual time, as their actual duration can only be measured after this document is complete.

- **Task 001:**

- Plan delivery 1

- \* Description: Create the planning board, add the tasks corresponding to delivery 1 and assign the first tasks.
    - \* Assignees: María
    - \* Role: Manager
    - \* Planned time: 2:00:00
    - \* Actual time: 2:00:00

- **Task 002:**

- Initialise repository

- \* Description: Create a copy of the Hello World starter and add it to the repository.
- \* Assignees: María
- \* Role: Manager
- \* Planned time: 0:30:00
- \* Actual time: 0:30:00

• **Task 003:**

- Customize the starter
  - \* Description: Follow the instructions in the S04-Getting started presentation to customize the starter project template. Make sure that the name of the project folder, maven configuration (pom.xml), and database is Acme-ANS-D01. Also, make sure to support both English and Spanish (#7).
  - \* Assignees: Guillermo
  - \* Role: Developer
  - \* Planned time: 2:40:00
  - \* Actual time: 2:50:27
- Customize the starter \T1
  - \* Description: Check the work done in task 003 (#3).
  - \* Assignees: Daniel
  - \* Role: Tester
  - \* Planned time: 0:07:00
  - \* Actual time: 0:17:29
- Customize the starter \R1
  - \* Description: Some errors where found in the customization. Check the review #18.
  - \* Assignees: Guillermo
  - \* Role: Developer
  - \* Planned time: 0:07:00
  - \* Actual time: 0:06:07
- Customize the starter \T2
  - \* Description: Check work done in task 003 review 1 (#19). This task had a previous review (#18)
  - \* Assignees: Daniel
  - \* Role: Tester
  - \* Planned time: 0:07:00
  - \* Actual time: 0:09:00
- Customize the starter \R2
  - \* Description: Change the version information in the database and the pom file.

- \* Assignees: Guillermo
- \* Role: Developer
- \* Planned time: 0:15:00
- \* Actual time: 0:14:42
- Customize the starter \T3
  - \* Description: Check changes in #41.
  - \* Assignees: María
  - \* Role: Tester
  - \* Planned time: 0:07:00
  - \* Actual time: 0:15:52
- Customize the starter \R3
  - \* Description: Apply feedback received in the feedback session regarding the structure of the folders. A folder should be added for the documentation for each delivery in the reports folder.
  - \* Assignees: María
  - \* Role: Developer
  - \* Planned time: 0:07:00
  - \* Actual time: 0:05:35
- Customize the starter \T4
  - \* Description: Test that review 3 (#52) was performed correctly. Check there are two pdfs in the group folder for the first deliverable and folder for each deliverable with folders for the group and each student.
  - \* Assignees: Ignacio
  - \* Role: Tester
  - \* Planned time: 0:07:00
  - \* Actual time: 0:01:44

● **Task 004:**

- Deliver the work done
  - \* Description: Deliver the work done to EV. You should follow the instructions in the "On Your Deliverables" document to package and deliver the work.
  - \* Assignees: Guillermo
  - \* Role: Operator
  - \* Planned time: 0:20:00
  - \* Actual time: Not performed yet.
- Deliver the work done \T1
  - \* Description: Review that deliver the work done (#4) was done correctly and following the instructions in the "On Your Deliverables".
  - \* Assignees: Daniel
  - \* Role: Tester

- \* Planned time: 0:15:00
- \* Actual time: Not performed yet.

• **Task 005:**

- Write the Chartering Report
  - \* Description: Create and write the chartering report. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
  - \* Assignees: María
  - \* Role: Manager
  - \* Planned time: 5:00:00
  - \* Actual time: 6:14:38
- Chartering Report \Meeting
  - \* Description: Meeting to discuss and sign the Chartering Report.
  - \* Assignees: Alejandro, Daniel, Guillermo, Ignacio, María
  - \* Role: Student
  - \* Planned time: 0:30:00
  - \* Actual time: 0:20:00
- Chartering report update \R0
  - \* Description: Must add missing member's pictures and signatures
  - \* Assignees: María
  - \* Role: Manager
  - \* Planned time: 0:10:00
  - \* Actual time: 0:06:49
- Chartering report \T1
  - \* Description: Check Chartering Report to make sure that there is no grammatical or syntactical errors. Also check that it includes the required sections and is located in the correct folder.
  - \* Assignees: Guillermo
  - \* Role: Tester
  - \* Planned time: 0:10:00
  - \* Actual time: 0:08:12
- Chartering report \R1
  - \* Description: Make changes to the chartering report after the feedback session, including: changing the Commitment section to make it simpler, keeping the main goal (grade) easy to spot, changing the Performance Indicators to only include the "Grade" indicator explained in class (reality-expectation), changing the Version of the document after the changes.
  - \* Assignees: María
  - \* Role: Manager



- \* Planned time: 1:00:00
- \* Actual time: 1:05:51
- Chartering Report \T2
  - \* Description: Check that the chartering report was updated correctly according to the feedback received in the review session (#54).
  - \* Assignees: Guillermo
  - \* Role: Tester
  - \* Planned time: 0:10:00
  - \* Actual time: 0:11:27
- **Task 006:**
  - Provide a link to project dashboard
    - \* Description: Provide a link to this planning dashboard in GitHub to the professor.
    - \* Assignees: Guillermo
    - \* Role: Operator
    - \* Planned time: 0:05:00
    - \* Actual time: 0:02:34
  - Provide a link to project dashboard \T1
    - \* Description: Check that the link is provided and it correctly leads you to the planning dashboard #6.
    - \* Assignees: Alejandro
    - \* Role: Tester
    - \* Planned time: 0:03:00
    - \* Actual time: 0:04:30
- **Task 007:**
  - Previous WIS architecture knowledge report
    - \* Description: The report must include all the knowledge about the architecture of a WIS that we have acquired prior to the subject. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
    - \* Assignees: Daniel
    - \* Role: Developer
    - \* Planned time: 2:00:00
    - \* Actual time: 1:54:30
  - Previous WIS architecture knowledge report \T1
    - \* Description: Review the document to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.

- \* Assignees: María
- \* Role: Tester
- \* Planned time: 0:10:00
- \* Actual time: 0:10:39
- Previous WIS architecture knowledge report \R1
  - \* Description: Solve problems found in testing round 1 (#35).
  - \* Assignees: Daniel
  - \* Role: Developer
  - \* Planned time: 1:00:00
  - \* Actual time: 1:08:19
- **Task 008:**
  - Previous WIS testing knowledge report
    - \* Description: The report must include all our knowledge regarding testing a WIS prior to this subject.  
Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
    - \* Assignees: Alejandro
    - \* Role: Tester
    - \* Planned time: 2:00:00
    - \* Actual time: 2:15:10
  - Previous WIS testing knowledge report \T1
    - \* Description: Review the document in #9 to check that: the required contents are present, the format is correct., there is no spelling or grammatical errors.
    - \* Assignees: Daniel
    - \* Role: Tester
    - \* Planned time: 0:10:00
    - \* Actual time: 0:22:16
  - Previous WIS testing knowledge report \R1
    - \* Description: Solve problems found in testing round 1 (#101).
    - \* Assignees: Alejandro
    - \* Role: Developer
    - \* Planned time: 1:00:00
    - \* Actual time: 1:24:00
  - Previous WIS testing knowledge report \T2
    - \* Description: Review the document in #36 to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.
    - \* Assignees: Daniel

- \* Role: Tester
- \* Planned time: 0:10:00
- \* Actual time: 0:20:50
- Previous WIS testing knowledge report \R2
  - \* Description: Solve problems found in testing round 1 (#105).
  - \* Assignees: Alejandro
  - \* Role: Tester
  - \* Planned time: 0:10:00
  - \* Actual time: 0:08:55
- Previous WIS testing knowledge report \T3
  - \* Description: Review the document in #102 to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.
  - \* Assignees: Daniel
  - \* Role: Tester
  - \* Planned time: 0:10:00
  - \* Actual time: 0:09:02
- **Task 009:**
  - Development configuration set-up report
    - \* Description: The report must include how we have set up our development configuration. It should not reproduce the guideline but make it clear that we have followed the received instructions and make it clear that it has been followed.  
Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
    - \* Assignees: Guillermo
    - \* Role: Developer
    - \* Planned time: 4:00:00
    - \* Actual time: 5:09:56
  - Development configuration set-up report \T1
    - \* Description: Review the document in #10 to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.
    - \* Assignees: Daniel
    - \* Role: Tester
    - \* Planned time: 0:10:00
    - \* Actual time: 0:09:50
- **Task 010:**
  - Analysis Report

- \* Description: Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
- \* Assignees: Ignacio
- \* Role: Analyst
- \* Planned time: 3:00:00
- \* Actual time: 4:17:43
- Analysis Report \T1
  - \* Description: Review the document in #11 to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.
  - \* Assignees: Guillermo
  - \* Role: Tester
  - \* Planned time: 0:10:00
  - \* Actual time: 0:05:03
- **Task 011:**
  - Planning and Progress Report
    - \* Description: Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
    - \* Assignees: María
    - \* Role: Manager
    - \* Planned time: 5:00:00
    - \* Actual time: 6:41:00
  - Planning and Progress Report \T1
    - \* Description: Review the document in #12 to check that: the required contents are present, the format is correct, there is no spelling or grammatical errors.
    - \* Assignees: Daniel
    - \* Role: Tester
    - \* Planned time: 0:10:00
    - \* Actual time: Not performed yet.
- **Task 012:**
  - Attend lectures \L
    - \* Description: Attend lectures.
    - \* Assignees: Alejandro, Daniel, Guillermo, Ignacio, María
    - \* Role:
    - \* Planned time: 12:00:00

\* Actual time: 12:00:00

- **Task 013:**

- Studying the contents of the subject \L
  - \* Description: Study the contents of the subject to be able to apply the knowledge in the project.
  - \* Assignees: Alejandro, Daniel, Guillermo, Ignacio, María
  - \* Role:
  - \* Planned time: 5:00:00
  - \* Actual time: 5:00:00

- **Task 014:**

- Add checked requirements document
  - \* Description: Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
  - \* Assignees: Guillermo
  - \* Role: Operator
  - \* Planned time: 0:15:00
  - \* Actual time: Not performed yet.
- Add checked requirements document \T1
  - \* Description: Review the document in #62 to check that: the fields are filled in and the requirements met are added.
  - \* Assignees: Daniel
  - \* Role: Tester
  - \* Planned time: 0:07:00
  - \* Actual time: Not performed yet.

## 2.2. Planning methodology

In this section, we will present the planning methodology, using some screen captures of our planning dashboard at the start, during and at the end of development.

The first step of the project was to plan the tasks for the first delivery. Once the manager completed this step, as shown in Figure 1, all tasks in the planning dashboard were placed in the "To do" column, except for the planning task itself.

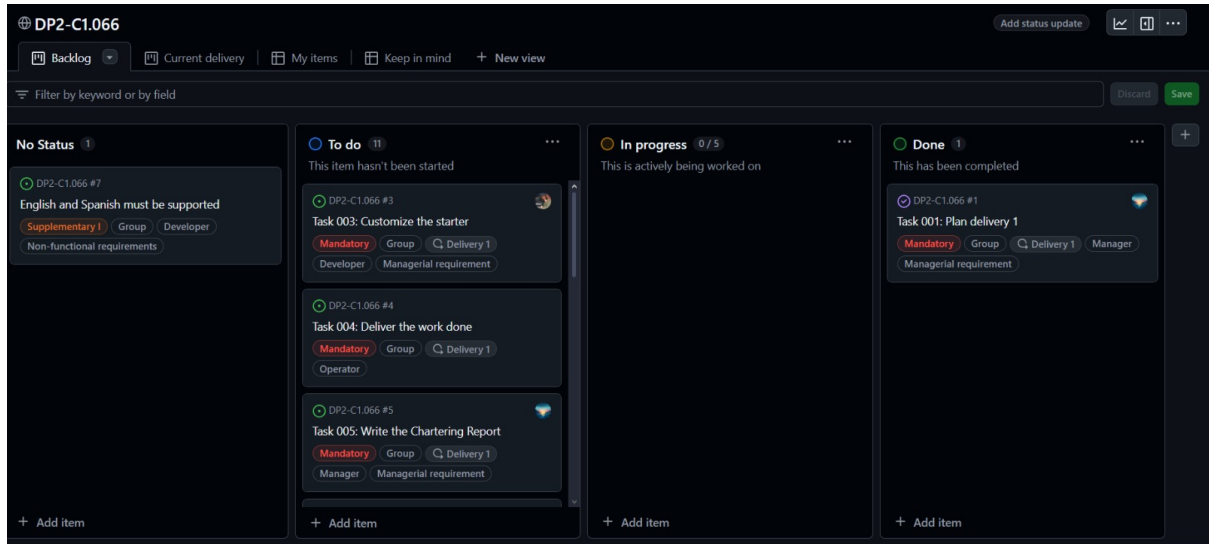


Figure 1: Screen capture of the planning dashboard at the start of the delivery

Once the initial tasks were assigned to team members, the development began. When a team member starts working on a task, they move it to the "In Progress" column. Upon completion, the task is moved to the "Done" column, and the manager is informed. Then, the manager creates a quality assurance task to test the completed task.

Quality assurance tasks are named after the task they are verifying, followed by "\Tx", where  $x$  represents the test iteration number (e.g., "\T1" for the test, "\T2" for a second test if needed, and so on). If an issue is found during testing, the tester documents it in a comment within the testing task; an example is shown in Figure 2. Once the quality assurance task is completed, the manager is notified.

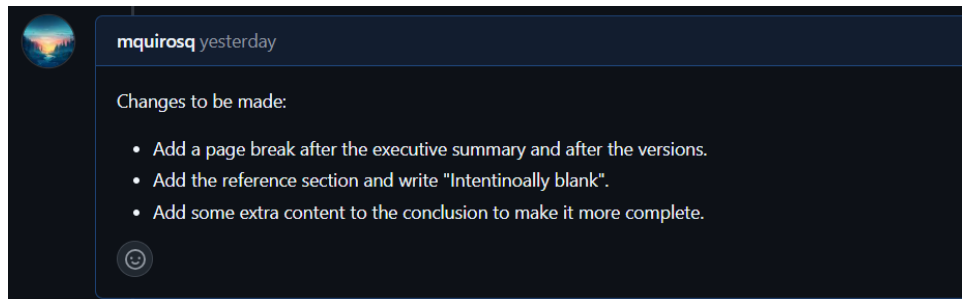


Figure 2: Example of comment left in a testing task

If any issues are identified, the manager creates a review task to address them. Review tasks follow the same naming convention as quality assurance tasks but use "\Rx" instead (e.g., "\R1", "\R2"). The manager provides a link to the test issue in the review task so that the developer can assess and solve the reported problems. Once a review task is completed, the manager is notified and creates a new quality assurance task.

An example of the dashboard during the development process can be seen in Figure 3.

Note the appearance of testing and review tasks in the "Done" column.

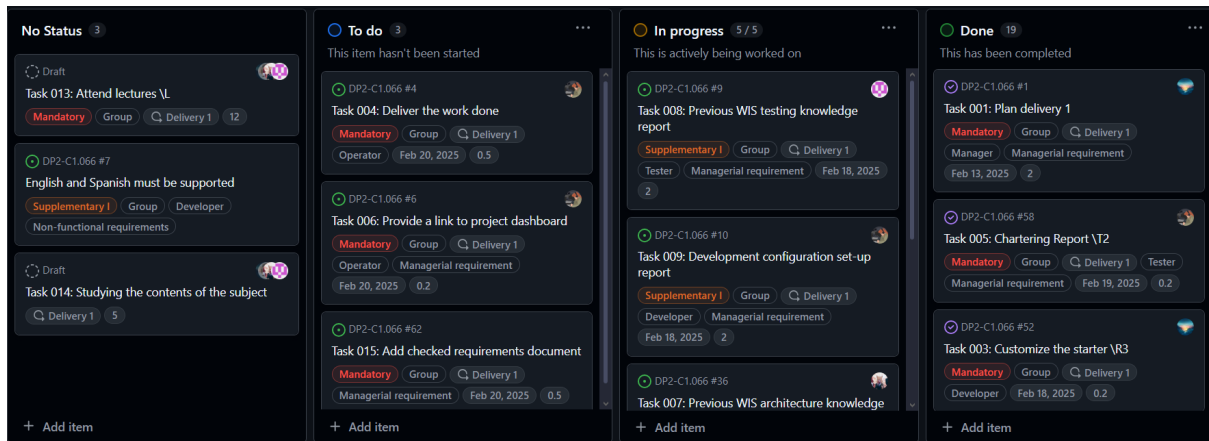


Figure 3: Screen capture of the planning dashboard during the delivery

Once the development is complete, all tasks are moved to the "Done" column, as shown in Figure 4. Note that the Planning and Progress Report is marked as "In Progress", and the task regarding the final delivery and marking the completed requirements remain in the "To Do" column, as they cannot be considered "Done" until after the capture is included in the document.

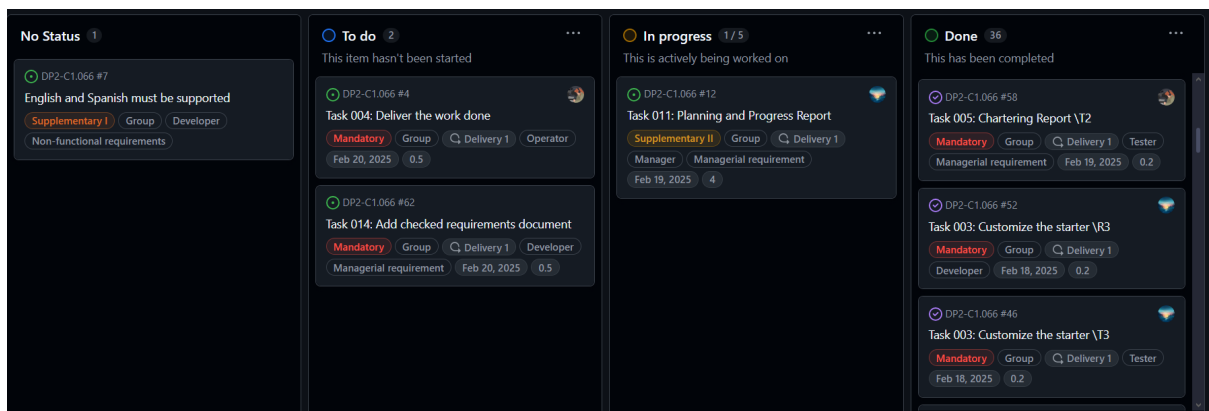


Figure 4: Screen capture of the planning dashboard at the end of the delivery

## 2.3. Budget

The budget for Delivery 01 includes the estimated hours per role, personnel costs, and amortization costs. Depending on the nature of the task, it must be performed while adopting a specific role, which is taken into account when computing the budget. The personnel costs are computed based on the following hourly rates:

- Managers and analysts: **30,00 euros per hour**

- Developers, testers, and other roles: **20,00 euros per hour**

Students were also assigned a salary of 20 euros per hour.

After summing the estimated times for each task we obtain the results in Figure 5. The total expected work is **50,53 hours**, and the total personnel cost is **1.177,33 euros**.

Role	Hourly Rate	#	Estimated Time (hrs)	Estimated cost
Manager	30,00 €		13,67	410,00 €
Developer	20,00 €		10,15	203,00 €
Tester	20,00 €		5,55	111,00 €
Operator	20,00 €		0,67	13,33 €
Analyst	30,00 €		3,00	90,00 €
Student	20,00 €		17,50	350,00 €
Totals:			50,53	1.177,33 €

Figure 5: Table with estimated costs in hours and euros by role and the totals

The project requires the use of multiple devices that must be considered for amortization, these are:

- Laptop valued at 1.200 euros.
- Laptop valued at 1.100 euros.
- Laptop valued at 900 euros.
- Laptop valued at 1.229 euros.
- Laptop valued at 1.000 euros.

For a total cost of devices of 5.429 euros, which is amortized over three years (36 months with 4 weeks per month). The weekly amortization cost is:

$$\text{Amortization cost per week} = \frac{5,429}{36 * 4} = 37,70 \text{ euros}$$

Since Delivery 01 has a duration of three weeks, the amortization costs are:

$$\text{Amortization cost for 3 weeks} = 37,70 \times 3 = 113,10 \text{ euros}$$

Thus, the estimated cost of the delivery ascends to **1290,43 euros**.



### **3. Progress**

#### **3.1. Progress records**

Since our team operates as a cohesive unit towards a shared goal, the performance indicator applied in the Chartering Report [1] applies to the team as a whole. This is why progress records will be reported at the team level, instead of individually. The following records provide an overview of the team performance and the corresponding actions taken.

##### **Feedback session 1 (18/02/2025) - First round**

Regarding the "Grade" performance indicator, we expected to obtain three marked requirements, meaning all mandatory requirements for Delivery 01. However, during the session, the lecturer marked only one requirement as completed.

$$\text{Grade} = 1 - 3 = -2$$

Thus, the final value of the Grade indicator was -2. A negative Grade value indicates poor performance, as the team expected a higher result than what was achieved.

As admonishment, the group discussed the feedback provided by the lecturer and agreed to implement the necessary changes as soon as possible.

##### **Feedback session 1 (18/02/2025) - Second round**

After implementing the changes suggested by the lecturer, we had a second review session. Once again, we expected to obtain three marked requirements. Thanks to these changes, the lecturer approved all three expected requirements.

$$\text{Grade} = 3 - 3 = 0$$

Thus, the final value of the Grade indicator was 0. A zero value indicates that the team is adequately making progress towards the goal without exceeding expectations. No rewards or admonishments were issued.

#### **3.2. Conflicts**

No conflicts have arisen.

#### **3.3. Cost comparison**

After completing Delivery 01, we compare the initial estimated costs with the actual costs incurred. This includes the number of hours spent per role, personnel costs, amortization, and the total cost difference.

By summing the total time spent on each task per role, we obtain the results in Figure 6. To ensure a fair comparison, we assume that for tasks not yet completed, the final recorded time matches the estimated time. The total time dedicated to the project amounts to **57,15 hours**, with a total personnel cost of **1.352,39 euros**.

Role	Hourly Rate	#	Estimated Time (hrs)	Estimated cost	Total Hours	Total cost
Manager	30,00 €		13,67	410,00 €	16,64	499,15 €
Developer	20,00 €		10,15	203,00 €	11,49	229,87 €
Tester	20,00 €		5,55	111,00 €	6,68	133,64 €
Operator	20,00 €		0,67	13,33 €	0,71	14,21 €
Analyst	30,00 €		3,00	90,00 €	4,30	128,86 €
Student	20,00 €		17,50	350,00 €	17,33	346,67 €
Totals:			50,53	1.177,33 €	57,15	1.352,39 €
Reality - Estimation					6,62	175,06 €

Figure 6: Budget comparison to actual costs

When comparing the estimated and actual costs for Delivery 01, a deviation from the original budget can be appreciated. Initially, the personnel cost was estimated at 1.177,33 euros, whereas the actual cost incurred was 1.352,39 euros, resulting in a 175,06-euro increase. This discrepancy came from inaccuracies in the estimates across all roles, with the most notable error occurring in the manager's hours, which were underestimated by three hours. Moving forward, more precise estimations will be necessary to improve accuracy.

No additional expenses were incurred during the process, so the amortization costs remained 113,10 euros. Thus, the real cost of the delivery is **1465,49 euros**.

## 4. Conclusions

Throughout this document, we have demonstrated the approach taken by the team to achieve the objectives set for Delivery 01. Through task allocation, quality assurance processes, monitoring after feedback sessions, and iterative improvement based on said feedback, the team made steady progress towards their goal.

In the planning section, we have provided evidence that our planning was conducted using a structured approach. We have demonstrated that we have followed the course's methodology regarding quality assurance and reviews, as well as presented our budget per role and for the whole team.

In the progress section, we have demonstrated how progress was measured and the actions taken to improve performance. Additionally, we have compared the estimated budget with the final costs.

Even though some challenges arose, by addressing ambiguities in the requirements and

implementing the necessary modifications based on lecturer feedback, we refined our processes and improved the quality of our work.

Throughout this delivery, we have gained valuable lessons about planning, execution and the importance of quality assurance. Moving forward, the team aims to incorporate the lessons learned from this first delivery to enhance productivity and ensure successful completion of our goal.

## References

- [1] Team C1.066, *Chartering Report for Delivery 01*, 2025. Included in project delivery.