

Group: C1.010

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Analysis Report

**Repository: https://github.com/C1-010/Acme-SF-D02**

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# 1. Executive Summary

This document will gather an analysis of the most complex requirements included in this deliverable. Within the analysis of each requirement, the requirement itself will be quoted verbatim, and the decisions made to fulfil said requirement will be included.

# 2. Revision Table

|  |  |  |
| --- | --- | --- |
| Revision number | Date | Description |
| 1 | 08/03/2024 | Document created |

# 3. Introduction

# The purpose of this document is to perform an analysis of the requirements deemed necessary, providing a detailed description of each. Additionally, different available options will be identified, if any, to address each requirement, along with the associated advantages and disadvantages of each. Finally, the chosen alternative will be presented.

For the second derivable, several options and resolutions of certain requirements proposed in the course forum have been considered.

# 4. Contents

**4.1. Information requirements**

*2) A project aggregates several user stories elicited by the same manager. The system must store the following data about them: a code (pattern “[A-Z]{3}-[0-9]{4}”, not blank, unique), a title (not blank, shorter than 76 characters), an abstract (not blank, shorter than 101 characters), an indication on whether it has fatal errors, e.g., panics, a cost (positive or nought), and an optional link with further information. Projects containing fatal errors must be rejected by the system.*

This information requirement demands us to create a new entity for the application, which will store information about the total cost of the project.

The key to this attribute is the choice of the data type that will store the total cost, and that we have an estimated cost for the user story measured in hours, for which there are some alternatives:

**Alternative 1:** Implement the cost attribute using the int type for hours.

**Pros:**

* Format adapted to whole hours.
* In the industry, fractions of hours are not commonly worked with since rounding up and down usually balances out, leaving the estimated cost as anticipated.
* Avoids ambiguities about the meaning of the decimal part of a real number.

**Cons:**

* We cannot implement the cost in hours accurately, such as an hour and a half.

**Alternative 2:** Implement the cost attribute using the double type for hours and minutes, with the decimal part from zero to sixty representing the exact number of minutes.

**Pros:**

* Fractions of hours are allowed thanks to the decimal part, such as an hour and a half.
* Also valid for whole hours.
* Minutes are clearly reflected.

**Cons:**

* It is unusual to see hours separated by a "." instead of by ":"
* It would be unnecessary if whole-hour approximations are accepted.
* The decimal part can cause confusion when interpreting it.

**Alternative 3:** Implement the attribute using the Double type for hours and minutes, with the decimal part from zero to one hundred.

**Pros:**

* Fractions of hours are allowed thanks to the decimal part, such as an hour and a half.
* Also valid for whole hours.

**Cons:**

* Decimals are not commonly used to talk about hours. Moreover, in this way, minutes are not very clearly reflected.
* It would be unnecessary if whole-hour approximations are accepted.
* The decimal part can cause confusion when interpreting it.

**Decision made:** After consulting in the course forum, I saw that some classmates had discussed the same dilemma for similar attributes. Having read the posts from my classmates and the corresponding responses from the teachers, I concluded that I should opt for alternative 1.

**Font:** [link](https://ev.us.es/webapps/discussionboard/do/message?action=list_messages&course_id=_85092_1&nav=discussion_board&conf_id=_405265_1&forum_id=_234042_1&message_id=_404105_1)

*2) A project aggregates several user stories elicited by the same manager…..*

*3) A user story is a document that a manager uses to represent the smallest unit of work in a project. The system must store the following data about them: a title (not blank, shorter than 76 characters), a description (not blank, shorter than 101 characters), an estimated cost (in hours, positive, not nought), the acceptance criteria (not blank, shorter than 101 characters), a priority (“Must”, “Should”, “Could”, or “Won’t”), and an optional link with further information.*

It is clear that projects are composed of user stories; however, it is not specified whether a user story can belong to more than one project.

**Alternative 1:** User stories are associated with a single project.

**Pros:**

* The implementation would be very simple, as it could be modeled with a ManyToOne relationship.

**Cons:**

* Information might be repetitive, as many user stories are repeated almost identically in many projects, and this approach would force the storage of repetitive information.

**Alternative 2:** User stories can be used in multiple projects.

**Advantages:**

* User stories could be reused, reducing duplicate information.
* It is a more scalable solution, as it allows for the future addition of information specific to the relationship between a project and a user story.

**Cons:**

* It is a slightly more complex solution, as it involves creating an intermediary entity.

**Decision made:** After consulting in the course forum, I saw that a classmate had discussed the same dilemma. Having read the post and the corresponding responses from the teachers, I concluded that I should opt for alternative 2.

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**4.2.** **Functional requirements**

Intentionally blank.

**4.3. Non-functional requirements**

Intentionally blank.

**4.4. Testing requirements**

No in-depth analysis was required for the single testing requirement to be developed as it does not necessitate extensive scrutiny.

**4.5. Managerial requirements**

As this involves documentation elaboration, there are not multiple alternatives when it comes to fulfilling these requirements. The only way to complete them correctly is to adhere to the instructions provided in the document “08 Annexes.docx” given by the lecturers. There was no need to use the course forum or external sources for further information.

Also included is the creation of a data model, based on the code carried out for the deliverable, that does not require making any notable decisions to show it.

# 5. Conclusions

# In conclusion, the analysis of the requirements for this deliverable has been much more complex than the previous one, and reading the course forum has greatly benefited me in making decisions much more swiftly. Looking forward to future deliverables, I hope to be the one posting queries on the forum instead of reading those of other classmates.

# 6. Bibliography

"08 Annexes.docx" - Material and the forum provided in the DP2 subject at the University of Seville.Principio del formulario