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Analysis report

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

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# 1. Executive Summary

This analysis report aims to identify and address issues of inaccuracy, incompleteness, as well as inconsistencies between requirements and incorrect classifications within the analyzed records. Each analysis record will be examined, detailing a verbatim copy of the requirement it references, detailed conclusions from the analysis, and decisions made to rectify any identified issues. It's important to note that not every requirement will be commented on, only those requiring analysis, as they are few.

# 2. Revision Table

|  |  |  |
| --- | --- | --- |
| Revision number | Date | Description |
| 1 | 07/03/2024 | Creation of the report and finished it |

# 3. Introduction

This analysis report serves as a comprehensive examination of information requirements, focusing on Requirement 2 - Contract Data. Its objective is to identify and rectify any discrepancies, such as inaccuracies, incompleteness, and misclassifications, within the analyzed records.

Each record undergoes careful attention, detailing original requirements, analysis conclusions, and decisions for resolution. While not every requirement is subjected to analysis, this report ensures transparency and accountability by documenting pertinent findings.

In particular, I delve into the implementation considerations for the budget attribute, exploring options like Integer, Double, and the Money datatype. Through insights gathered from forum discussions and client clarifications, I conclude that the Money datatype is the most suitable choice for accurately representing monetary values in the system, ensuring compatibility with international currencies and facilitating precise financial management.

The structure of this document consists of an Executive Summary providing an overview of the report's objectives, followed by a Revision Table detailing the document's revision history. The main body encompasses the analysis of specific information requirements, discussions on the pros and cons of data types, insights from the “On Your Tutorials” forum and conclusions. Finally, the report closes with a concise conclusion summarizing the findings and a bibliography section.

# 4. Contents

## 4.1 Information requirements

**Requirement 2) - Contract Data**

Verbatim copy of the requirement:

“A **contract** is one or several agreements between the stakeholders involved in the development of a **project**. The system must store the following data about them: a **code** (pattern “[A-Z]{1,3}-[0-9]{3}”, not blank, unique), an **instantiation** **moment** (in the past), a **provider name** (not blank, shorter than 76 characters), a **customer name** (not blank, shorter than 76 characters), some **goals** (not blank, shorter than 101 characters), and a **budget** (less than or equal to the corresponding project cost).”

The requirement specifies that the system must store various data about contracts, including a unique code, an instantiation moment, provider name, customer name, goals, and a budget. Initially, there was uncertainty about how to implement the budget attribute. Options considered were Integer, Double, or the Money datatype provided by the framework. Each option has its pros and cons.

Integer: Pros include simplicity and ease of implementation. However, it lacks support for handling different currencies. Converting between currencies could be complex.

Double: **Pros** include flexibility in handling decimal values. However, is not suitable for representing currency due to it does not specify what currency is it.

Money (provided datatype): **Pros** include the ability to handle various currencies, ensuring accurate representation of monetary values. However, implementation complexity and lack of built-in Java validations were noted as drawbacks.

After reviewing a thread on the "On your tutorials" forum, I found that a similar question had already been resolved for another requirement. In that discussion, it was suggested to use the "Money" datatype instead of "Integer" or "double" in the **amount** attribute as it would be more appropriate. This recommendation was supported by additional clarifications provided by the client regarding the data's nature.

**Pros and Cons of Money datatype**:

Pros: Suitable for handling different currencies, ensuring accurate representation of monetary values.

Cons: Implementation complexity and lack of built-in Java validations.

Conclusion: Despite the implementation challenges, the Money datatype is the most suitable option for representing monetary values in the system due to its ability to handle various currencies effectively.

**Link**: [Contenido (us.es)](https://ev.us.es/ultra/courses/_85092_1/cl/outline) (Cadena: [Análisis] D02-Student#4-002)

**Final Thoughts**

The analysis of mandatory requirements highlights the importance of selecting appropriate data types to accurately represent data in the system. In this case, the decision to use the Money datatype for representing monetary values ensures compatibility with international currencies and accurate financial management. Additionally, consulting with the client and seeking clarification on ambiguous requirements played a crucial role in making informed decisions during the analysis process.

# 5. Conclusions

In summary, this analysis report has identified discrepancies in Requirement 2 - Contract Data and provided a solution for accurately representing monetary values. After evaluating various data types, the Money datatype emerged as the most suitable choice despite its implementation challenges. Collaboration with stakeholders and leveraging forum discussions were instrumental in making informed decisions. By implementing the recommended approach, we ensure precise financial management and system compatibility with international currencies.

# 6. Bibliography

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