Analysis Report (Student #5)



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Table of Contents

[1 Executive Summary 2](#_Toc192799551)

[2 Revision Table 3](#_Toc192799552)

[3 Introduction 4](#_Toc192799553)

[4 Contents 5](#_Toc192799554)

[4.1 Requirement Analysis 5](#_Toc192799555)

[4.2 Alternatives 5](#_Toc192799556)

[4.3 Proposed Solution 5](#_Toc192799557)

[5 Conclusions 7](#_Toc192799558)

[6 Bibliography 8](#_Toc192799559)

# Executive Summary

This document presents my individual analysis of a requirement from the project Acme-ANS-D02. It presents an analysis of a requirement modification related to the creation of sample data for the technicians' accounts. The change involves generating three technician accounts with specific credentials, two of which have associated data, and one which only exists as a profile. The key point of analysis is determining whether it is necessary to create more technician accounts for testing or if the three technicians specified in the requirement are sufficient. This report evaluates the requirement and provides conclusions on the best way to generate the sample data.

# Revision Table

|  |  |  |
| --- | --- | --- |
| **Revision Number** | **Date** | **Description** |
| 1.0 | 12/03/2025 | Initial draft |
| 1.1 | 12/03/2025 | Final document review |

# Introduction

The purpose of this report is to analyze the recent modification request regarding the creation of sample data for the technicians' accounts. The requirement specifies creating three technician accounts with the following credentials:

* technician1/technician1
* technician2/technician2
* technician3/technician3 (this account has no associated data, only the profile).

This raises the question of whether it is necessary to create additional technicians beyond the three specified to validate the system's behavior and restrictions more effectively. The new requirement explicitly mentions only three technicians, leading to uncertainty about whether further technician accounts are necessary for testing. To address this, a detailed analysis is necessary to evaluate the options available and determine the best course of action.

This document contains the following sections:

* Section 4: Requirement Analysis – Provides an overview of the key aspects of the requirement and alternatives for handling technician creation.
* Section 5: Conclusions and Recommendations – Summarizes the findings and proposed actions moving forward, along with a link to a thread related to the topic on the forum.
* Section 6: References – Lists any external sources consulted.

The report aims to find the best approach for generating sample data while ensuring the system's functionality is properly tested.

# Contents

## Requirement Analysis

The requirement specifies creating three technician accounts with defined credentials: two technicians with associated data and one technician without data, existing only as a profile. This raises questions about whether additional technician accounts need to be created for effective testing, or if the three specified accounts are sufficient. The alternatives below outline the potential solutions for addressing this requirement.

## Alternatives

The solution alternatives considered are the following:

* **Alternative 1: Create only the three technicians specified in the requirement.**
  + Explanation: The three technicians are created as instructed, with technician3 having no associated data.
  + Advantages: The approach strictly follows the requirement without generating unnecessary data.
  + Disadvantages: It does not validate every attribute contained in the Technician entity.
* **Alternative 2: Create multiple technicians (more than specified) while sharing user accounts.**
  + Explanation: More technician accounts are created, but multiple technicians share the same user account.
  + Advantages: This allows testing with a variety of data combinations to verify that system validations work as intended.
  + Disadvantages: It doesn't make sense to associate multiple technicians with the same user account.
* **Alternative 3: Create multiple technicians (more than specified) and assign distinct user accounts to each**.
  + Explanation: More technicians are created, each with its own user account.
  + Advantages: The system is tested with multiple distinct user accounts, ensuring proper functionality and validation.
  + Disadvantages: This results in more data being generated than required by the specification, leading to potential redundancy.

## Proposed Solution

After careful evaluation of the alternatives, the concluded best approach is to adopt **Alternative 1**, which is to create only the three technicians specified in the requirement, without generating additional data. This decision is based on the explicit instruction in the requirement to create only three of them, avoiding redundancy and adhering to the requested scope.

# Conclusions

The modification of the technician accounts for sample data creation presents several options for testing the system. Given that the requirement explicitly mentions only three technicians, the most appropriate and efficient approach is to create just those three. While creating additional technicians could provide further test cases, it is unnecessary according to the current specification, and it may introduce redundant data that is not required for the test cases.

Link to the forum with the thread reviewed by a lecturer: <https://ev.us.es/webapps/discussionboard/do/message?action=list_messages&course_id=_89154_1&nav=discussion_board&conf_id=_426211_1&forum_id=_253522_1&message_id=_462238_1>

# Bibliography

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