# Requirements – Student #4

Please, fill in the following form, make sure that you have ticked the requirements that you consider fulfilled, save this document, **and attach it in its original format (.docx)** to every deliverable. Regarding your ID, please keep only four random digits and mask the others using an asterisk. **Please, note that this document must be edited with the desktop version of Word since the web version does not properly support forms.** Attaching this document entails that you are the authors of the work delivered, you have not cheated in any way, and you have read and understood the information delivered regarding the subject, with a special emphasis on the methodological guidelines and how your work is going to be graded. Make sure that your project works well with the latest version of the development framework.

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| --- |
| **Group:** C2. 006 |
| **Repository:** https://github.com/rubpergar/Acme-ANS-D04 |
| **Student #4**  **ID Number:** 3028\*\*\*\*\*  **UVUS:**  LLS5566  **Name:**  Pereira Campos, Macarena  **Roles:**  Analyst, Developer, Tester |
| **Date:** Sevilla a 26 de mayo de 2025 |

# MANDATORY Deliverable D01: introduction

## Information requirements

Intentionally blank.

## Functional requirements

1. Modify the anonymous menu so that it shows an option that takes the browser to the home page of your favourite web site. The title must read as follows: “〈id-number〉: 〈surname〉, 〈name〉”, where “〈id-number〉” denotes your DNI, NIE, or passport number, “〈surname〉” denotes your surname/s, and “〈name〉” denotes your name/s.

x

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Provide a link to your planning dashboard in GitHub to review the tasks, their current status, and your schedule.

X No se sigue la metodología explicada. La planificación es incompleta:

A screenshot of a computer

AI-generated content may be incorrect.

Para la corrección de este requisito, se creó un nuevo tablero en el que se organizaron todas las tareas correspondientes a la segunda convocatoria. En este mismo tablero se incluyeron tareas de las cuatro entregas, manteniendo todo centralizado y ordenado.

Antes de su creación, se revisó cuidadosamente la teoría para asegurarse de que el tablero estuviera correctamente estructurado y cumpliera con los criterios establecidos.

# MANDATORY Deliverable D02: data models

## Information requirements

1. The **assistance agents** are the people responsible for recording and managing post-flight incidents reported by passengers. The system must store the following data about them: an **employee code** (unique, pattern "^[A-Z]{2-3}\d{6}$", where the first two or three letters correspond to their initials), a list of **spoken languages** (no longer than 255 characters), the **airline** for which they work, the **moment** on which they began to work for that airline (in the past), and optionally, a **brief bio** (up to 255 characters), their **salary**, and a link to a **photo** that should be stored anywhere else.

x OJO: atributos sin error customizado:

A computer code and a symbol

AI-generated content may be incorrect.

Se agregó al constraint ***@ValidString*** el parámetro ***message = "{acme.validation.code.notPatern.message}"*** con el objetivo de definir un mensaje de error personalizado.

Posteriormente, se añadió este código a los archivos ***validation-en.i18n*** y ***validation-es.i18n***, proporcionando así un mensaje más claro y comprensible para el usuario final en ambos idiomas.

1. A **claim** is a formal request or complain made by a passenger or customer due to a problem or inconvenience experienced during a flight. They are registered by the **assistance agents**, and the data to store when registering a **claim** is the following: the **registration moment** (in the past), the **passenger email**, a **description** (up to 255 characters), a **type** (“FLIGHT ISSUES”, “LUGGAGE ISSUES”, “SECURITY INCIDENT”, “OTHER ISSUES”) and an **indicator** of whether the claim is accepted or not.

x ¿Ninguna restricción?



Se agregaron las restricciones correspondientes a las tres etapas de validación: ***@Mandatory, @Valid y @Automapped***, con el fin de garantizar un control completo sobre los datos en cada fase del proceso.

1. Claims need to be tracked through **tracking logs**. A tracking log records each step in the procedure followed to resolve or reject a claim, ensuring that all actions and decisions are documented. The system must store the following data about **tracking logs**: the **last update moment**, the **step** undergoing (up to 50 characters), a **resolution percentage**, and an **indicator** on whether the claim was finally accepted or not. When a claim is accepted or rejected, the system must store its **resolution** indicating the reason why was rejected or the compensation to offer (up to 255 characters).

x ¿Este atributo no necesita ninguna restricción?

A white background with black and white clouds

AI-generated content may be incorrect.

Se agregaron las restricciones correspondientes a las tres etapas de validación: ***@Mandatory, @Valid y @Automapped***, con el fin de garantizar un control completo sobre los datos en cada fase del proceso.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

1. Produce assorted sample data to test your application informally. The data must include two **assistance agent** accounts with credentials “**agent1**/**agent1**” and “**agent2**/**agent2**”. Create an additional agent account with credentials “**manager3/manager3”** that accounts for a new agent with no associated data, except for his or her profile.

x

## Managerial requirements

1. Provide a link to your planning dashboard in GitHub to review the tasks, their current status, and your schedule.

X Mismo problema de antes.

Como se dijo antes, se arregló creando un tablero nuevo en el que se incluyen todas las entregas, siguiendo la metodología estudiada en clase.

# MANDATORY Deliverable D03: implementing features

## Information requirements

Intentionally blank.

## Functional requirements

1. Operations by **assistance agents** on **claims**:

* List their completed claims, that is, the ones that have been accepted or rejected and show their details.
* List the undergoing claims and show their details including the leg to which they are linked.
* Create, update, publish, and delete their claims. Claims must be linked to legs that occurred. Additionally, claims can be updated or deleted as long as they have not been published.

X Me pregunto por qué la interfaz permite seleccionar un tramo sobre el que no puedo poner reclamaciones. Tampoco hay nada que me permita saber si un tramo ha pasado o no.

A white rectangular object with lines

AI-generated content may be incorrect.

No es posible realizar pruebas completas para esta entidad debido a los problemas encontrados en el siguiente requisito.

Se eliminó la posibilidad de seleccionar un tramo de vuelo que aún no haya ocurrido, dejando disponibles en la interfaz de usuario únicamente aquellos tramos que ya hayan sido publicados y terminados.

Además, se actualizó el método authorise para incluir una verificación adicional que impida posibles intentos de acceso indebido a vuelos no ocurridos. Anteriormente, esta acción no se consideraba ilegal al estar contemplada en la interfaz de usuario, pero tras su eliminación, su control se volvió necesario desde el backend.

1. Operations by **assistance agents** on **tracking logs**:

* List and show the tracking logs associated to their claims.
* Create, update, publish, and delete a tracking log. A tracking log cannot be published until its corresponding claim is published. Once published, tracking logs cannot be updated or deleted. In exceptional cases, a new tracking log may be created even after the last one has been published (the one with a 100% resolution percentage). This additional tracking log is generated when the customer expresses dissatisfaction, prompting agents to review their claims.

X El análisis del requisito ha aclarado que los logs deben formar una serie monótonamente creciente en relación con el porcentaje de resolución, pero esto no es así:

A screenshot of a computer

AI-generated content may be incorrect.

Si edito el Segundo como sigue, obtengo el error indicado:

A white box with black text

AI-generated content may be incorrect.

Pero al cambiar el porcentaje a 2.00 es aceptado y ese porcentaje no es “mayor que el anterior”.

Se modificó la restricción aplicada en el ***TrackingLogValidator*** para este campo. Anteriormente, la condición estaba definida como ***>***, lo que provocaba que el error solo se activara cuando el porcentaje del log era estrictamente mayor que el anterior, contradiciendo así el principio de monotonía creciente.

Para corregirlo, se cambió a ***>=***, de forma que la validación también contemple los casos en los que dos registros tengan el mismo porcentaje, cumpliendo así correctamente con el requisito establecido.

Relleno un formulario de la siguiente forma:

A screenshot of a computer

AI-generated content may be incorrect.

Al pulsar en el botón para crear el resultado es el siguiente:

A screenshot of a computer code

AI-generated content may be incorrect.

Este error se producía debido a la falta de control de atributos nulos dentro del método validate. Para solucionarlo, se actualizó dicho método en todos los servicios relacionados, añadiendo las comprobaciones necesarias para evitar este tipo de fallos. Tras la corrección, se verificó que el comportamiento fuera el esperado en cada caso.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Provide a link to your planning dashboard in GitHub to review the tasks, their current status, and your schedule.

X Mismo problema de antes.

Como se ha comentado en los casos anteriores, la corrección de este requisito de todas las entregas se hace conjuntamente en el nuevo tablero creado para la segunda convocatoria.

# MANDATORY Deliverable D04: formal testing

## Information requirements

1. Create appropriate indices for your entities, if required.

X Índices redundantes.

A computer screen shot of a list

AI-generated content may be incorrect.

A close-up of a computer code

AI-generated content may be incorrect.

Se realizó un estudio exhaustivo de las queries utilizadas en los repositorios, apoyado por el uso de la herramienta DBeaver para analizar el uso de índices. Tras el análisis, se concluyó que solo era necesario el uso de un índice compuesto. Ese estudio se puede ve mejor en el testing report.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

1. Produce a test suite for Requirements #8 and #9.

X La suite proporcionada falla nada más iniciarse su ejecución. Se muestra sólo el primer problema encontrado:

A close up of text

AI-generated content may be incorrect.

Se regrabaron todas las pruebas, añadiendo además algunos casos adicionales para realizar un estudio más completo. Durante este proceso, se verificó que no se produjeran errores inesperados en la ejecución, garantizando así la estabilidad y fiabilidad del sistema.

## Managerial requirements

1. Provide a link to your planning dashboard in GitHub to review the tasks, their current status, and your schedule.

X Mismo problema de antes.

Como antes mencionado, se creó un nuevo tablero con la información de las cuatro entregas

1. Produce a testing report.

X El estudiante escribe lo siguiente:

A black text on a white background

AI-generated content may be incorrect.

No parece que su proyecto y pruebas correspondan a este texto. Se han encontrado problemas muy triviales, mientras que según el documento todo está OK.

Se corrigieron los problemas presentes en el proyecto, asegurando que tanto el código como las pruebas se correspondieran correctamente con la documentación. Además, se repitió el test de rendimiento con los nuevos casos de prueba añadidos, y se aprovecharon estas modificaciones para corregir pequeños errores detectados en el documento.

# SUPPLEMENTARY I Deliverable D01: introduction

## Information requirements

Intentionally blank.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

Intentionally blank.

# SUPPLEMENTARY I Deliverable D02: data models

## Information requirements

1. The system must handle **assistance agent** **dashboards** with the following **indicators**:

* The ratio of claims that have been resolved successfully.
* The ratio of claims that have been rejected.
* The top three months with the highest number of claims.
* The average, minimum, maximum, and standard deviation of the number of logs their claims have.
* The average, minimum, maximum, and standard deviation of the number of claims they assisted during the last month.

x

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Produce a UML domain model regarding the information requirements in your project.

x

# SUPPLEMENTARY I Deliverable D03: implementing features

## Information requirements

Intentionally blank.

## Functional requirements

1. Operations by **anonymous principals** on **user accounts**:

* Sign up to the system and become an assistance agent.

1. Operations by **assistance agents** on **user accounts**:

* Update their profiles.

1. Operations by **administrators** on **claims**:

* List the claims in the system that are published.
* Show the details of the claims that they can list (including their tracking logs).

1. Operations by **assistance agents** on **dashboards**:

* Show their dashboards.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Provide a link to a video in which you informally test requirement #8 and #9. Videos should not exceed 10 minutes in length and must be stored at the USE's facilities.

# SUPPLEMENTARY I Deliverable D04: formal testing

## Information requirements

Intentionally blank.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

1. Perform five mutations in your code and report on the results.

## Managerial requirements

1. Produce a lint report.

# SUPPLEMENTARY II Deliverable D01: introduction

## Information requirements

Intentionally blank.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Produce an analysis report.

X

Cambio de nombres para el C2

1. Produce a planning and progress report.

X

Se corrigió añadiendo el nuevo tablero.

# SUPPLEMENTARY II Deliverable D02: data models

## Information requirements

1. The system is required to store **flight status** or **delays** that assistance agents can consult to help them with some claims. A web service must be used to populate this entity with information about flight statuses/delays. Thus, the exact data to store depends on the chosen service, and it is the students' responsibility to define them accordingly. It is also the students’ responsibility to find the appropriate service; no implicit or explicit liabilities shall be covered by the University of Seville or their individual affiliates if the students contract pay-per-use services!  The students are strongly advised to ensure that the service they choose is free of charge.

x

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Produce an analysis report.

x

Cambio de nombres para el C2

1. Produce a planning and progress report.

x

Se corrigió añadiendo el nuevo tablero.

# SUPPLEMENTARY II Deliverable D03: implementing features

## Information requirements

Intentionally blank.

## Functional requirements

1. Operations by **assistance agents** on **flights status/delays**:

* List the flights statuses/delays available in the system.
* Show the details of the flight statuses/delays registered in the system.

1. Operations by **administrators** on **flights statuses/delays**:

* Populate the database with flights status/delay data.

## Non-functional requirements

Intentionally blank.

## Testing requirements

Intentionally blank.

## Managerial requirements

1. Produce an analysis report.

1. Produce a planning and progress report.

# SUPPLEMENTARY II Deliverable D04: formal testing

## Information requirements

Intentionally blank.

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

1. Produce as a complete test suite as possible for Requirement #29 ensuring that the API is properly mocked.

## Managerial requirements

1. Produce an analysis report.

1. Produce a planning and progress report.