# Requirements – Student #5

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:** C1.023 |
| **Repository:** https://github.com/ManunGar/Acme-ANS-D01 |
| **Student #2**  **ID Number:** 2951\*\*\*\*  **UVUS:**  HKF1832  **Name:**  Ruiz Martín, Alejandro  **Roles:**  Developer, Tester, Operator |
| **Date:** Seville, February 19, 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 usa la cuenta de la universidad en GitHub. ¿Por qué todas las tareas individuales de cada estudiante han sido creadas por el manager del grupo? Es responsabilidad de cada estudiante, dar de alta las tareas individuales de cada una de sus entregas, no del manager del grupo.

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Sobre el email, no sé realmente por qué le aparece el mio personal, ya que en github tengo ambos pero tengo activado como primario el otorgado por la us.Captura de pantalla de un celular

El contenido generado por IA puede ser incorrecto.

Sobre las tareas, en esta última entrega he rectificado y he creado mis propias tareas y me las he asignado a mi mismo. Sin embargo, las tareas ya asignadas y creadas por mi manger las he mantenido igual, ya que pregunté por el foro y así me recomendaron [1]  
  
[1] 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=\_473082\_1

# MANDATORY Deliverable D02: data models

## Information requirements

1. The **technicians** care of aircraft maintenance by conducting regular inspections, performing repairs, and carrying out other maintenance tasks. The system must store the following data about them: a **license number** (unique, pattern "^[A-Z]{2-3}\d{6}$"), a **phone number** (pattern "^\+?\d{6,15}$"), their **specialisation** (up to 50 characters), whether they have passed their **annual health test** or not, and their **years of experience**. Optionally, the system may store their **certifications** (up to 255 characters).

X

1. **Maintenance records** are comprehensive records of activities performed on a given **aircraft** throughout its operational life. The system must store the following data about them: the **moment** when a maintenance takes place, its **status** ("PENDING", "IN PROGRESS", "COMPLETED"), the next **inspection due date**, an **estimated cost**, and some optional **notes** (up to 255 characters).

X

1. **Maintenance records** rely on **tasks**. A task is a specific predefined operational duty carried out by a **technician** on **aircrafts**. The system must store the following data about tasks: their **type** ("MAINTENANCE", "INSPECTION", "REPAIR", "SYSTEM CHECK"), a **description** (limited to 255 characters), a **priority** (ranging from 0 to 10), and an **estimated duration** (in hours).

X

## 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 **technician** accounts with credentials “**technician1**/ **technician1**” and “**technician2**/ **technician2**”. Create an additional technician account with credentials “**technician3/ technician3”** that represents a technician with no data, but his or her profile.

X Me he logueado como technician3/technician3 y sólo tiene el realm de “Authenticated” pero no tengo ninguna de las opciones como técnico

A screenshot of a computer

AI-generated content may be incorrect.

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SOLUCIÓN:

El problema reportado era que al loguearte como technician3, no aparecían ninguna de las opciones que tenía cualquier otro técnico creado (technician1 y technician2). He revisado varios ficheros csv y me he dado cuenta de que, a pesar de que tenía en el fichero user-account.csv una cuenta asociada al technician3, en el fichero technician.csv no tenía añadido ningún technician3, por lo que la solución que le he dado ha sido modificar uno de los técnicos que había creado de más (creados para probar la mayor casuística posible de cada atributo asociado al technician)y le he puesto de nombre technician-03, asegurándome que ese technician-03 no tiene asociado ningún dato a su perfil. Una vez implementado esto, el technician 3 ya tendrá acceso a todas las opciones que tiene cualquier técnico.

Interfaz de usuario gráfica

El contenido generado por IA puede ser incorrecto.

PD: En mi código tengo implementado que para los maintenance records y las tasks, se filtre una lista de los records y las tasks que pertenecen y son creadas por los técnicos que se han logueado, y otra lista aparte de los records y las tasks publicadas (publicadas por cualquier técnico). Por lo tanto, las listas correspondientes al technician3 están vacías como se especifica en el requisito 6, pero las listas de los elementos publicados no están vacías ya que los elementos publicados aparecen a cualquiera de los técnicos que se loguee.

Interfaz de usuario gráfica, Texto, Aplicación

El contenido generado por IA puede ser incorrecto.

Interfaz de usuario gráfica, Texto, Aplicación

El contenido generado por IA puede ser incorrecto.

## Managerial requirements

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

X

# MANDATORY Deliverable D03: implementing features

## Information requirements

Intentionally blank.

## Functional requirements

1. Operations by **technicians** on **maintenance records**:

* List their maintenance records.
* Show the details of the maintenance records, including the tasks involved.
* Create, update, and publish maintenance records. Please, note that to publish a maintenance record, it cannot have any unpublished tasks and should have at least one published task.

La fecha de next inspection debería de estar en el futuro, pero además, no puede ser anterior a la fecha actual de inspección:

A screenshot of a computer

AI-generated content may be incorrect.

Hilo en el foro donde se comenta esto: https://ev.us.es/webapps/discussionboard/do/message?action=list\_messages&course\_id=\_89154\_1&conf\_id=\_426211\_1&forum\_id=\_253522\_1&message\_id=\_460979\_1&nav=discussion\_board

Además, lo tiene hecho correctamente en la implementación de la entidad correspondiente, donde el atributo maintenanceMoment indica que tiene que estar en el pasado y el atributo next inspection indica que es de tipo fecha pero no que tenga que estar en el pasado. Si así fuera, lo hubiera modelado como el atributo maintenanceMoment:

A screen shot of a computer program

AI-generated content may be incorrect.

Se termina la evaluación en este requisito.

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SOLUCIÓN:

Para este problema lo que he hecho ha sido implementar un custom validator, MaintenanceRecordValidator, que compruebe que, al modificar la fecha de la próxima inspección, esta sea posterior a la fecha de mantenimiento actual, y que por supuesto compruebe que la fecha de inspección se encuentra en el fu-turo. He añadido las mismas restricciones al método validate del Technician-MaintenanceRecordUpdateService, para mantener una doble capa de seguridad y evitar errores/ hackeos. Una vez hecho esto, la fecha nextInspection no podrá ponerse menor a la de maintenanceMoment.

Interfaz de usuario gráfica, Texto, Aplicación, Correo electrónico

El contenido generado por IA puede ser incorrecto.

1. Operations by **technicians** on **tasks**:

* List their tasks and show their details.
* Create, update, delete, and publish tasks. Note that published tasks cannot be updated or deleted.

## 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.

# MANDATORY Deliverable D04: formal testing

## Information requirements

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

## Functional requirements

Intentionally blank.

## Non-functional requirements

Intentionally blank.

## Testing requirements

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

## Managerial requirements

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

1. Produce a testing report.

# 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 **technician dashboards** with the following **indicators**:

* The number of maintenance records grouped by their status.
* The maintenance record with the nearest inspection due date, provided that he or she is involved in any tasks that need to be performed as part of that maintenance.
* The top five aircrafts with higher number of tasks in their maintenance records.
* The average, minimum, maximum, and standard deviation of the estimated cost of their maintenance records in the last year.
* The average, minimum, maximum, and standard deviation of the estimated duration of the tasks in which he or she is involved.

## 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.

# 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 a technician.

1. Operations by **technicians** on **user accounts**:

* Update their profiles.

1. Operations by **administrators** on **maintenance records**:

* List the maintenance records in the system that are published.
* Show the details of the maintenance records (including the tasks involved).

1. Operations by **technicians** 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.

1. Produce a planning and progress report.

# SUPPLEMENTARY II Deliverable D02: data models

## Information requirements

1. The system is required to have a notice board to advertise **courses** for technicians. A web service must be used to populate this entity with information about courses. 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 hire pay-per-use services! The students are strongly advised to ensure that the service they choose is free of charge.

## Functional requirements

Intentionally blank.

## 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 D03: implementing features

## Information requirements

Intentionally blank.

## Functional requirements

1. Operations by **technicians** on **courses**:

* List the course available and show their details.

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

* Populate the database with courses 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 web service is properly mocked.

## Managerial requirements

1. Produce an analysis report.

1. Produce a planning and progress report.