Hands on

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Welcome to **isobar**.**ch**

Portugal

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Week **#4** – Practical Lesson **#4**

1. Triggers

2. Schedules

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Project: Build a Warship App

So, now we have a good app. Validations are in place, things are getting automated, but there's still room to improve.

People tend to forget stuff. If everything needs to be done manually you can be sure something will fall through the cracks and at the end our Warship will be at the bottom of the ocean.

We can't let that happen.

Before Start: **Is your Developer Org up and running? Have you created the data model?**

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Triggers

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Create a Trigger for the Resource

We must ensure that the same resource is not assigned twice to the same project. While it would be nice to let someone work double time, that's not how things work (and we have the Utilization field for this). So let's start by thinking about our options:

1. Create a unique text field. Use a workflow or process to store a combination of warship+resource name
2. Create a text field and a duplicate rule. Use the same logic as 1.
3. Trigger

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Considering Options

Option 1 – Unique field – Error message:

Review the errors on this page.

We can't save this record because the "Make Resources Unique" process failed. Give your Salesforce admin these details. This error occurred when the flow tried to update records: DUPLICATE_VALUE: duplicate value found: Uniqueness_Check__c duplicates value on record with id: a015I000000dkPs. You can look up ExceptionCode values in the SOAP API Developer Guide. Error ID: 1663436368-15491 (-804958435)

Not very good is it?

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Considering Options

Option 2 – Duplicate Rule – Error message:

Review the errors on this page.

We can't save this record because the "Make Resources Unique" process failed. Give your Salesforce admin these details. This error occurred when the flow tried to update records: DUPLICATES_DETECTED: There's already an another resource with the same name. You can look up ExceptionCode values in the SOAP API Developer Guide. Error ID: 1663436368-15628 (-804958435)

Better, but still, a lot of things that the normal person won't understand.

Considering Options

Option 3 – Trigger – Error message:

Review the errors on this page.

This warship already has a Admiral

Now. That's a good user experience.

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Starting the Code

1. Make sure the trigger runs on insert AND update (maybe undelete?)

2. First filter out the cases to look for, we don't need to run the logic for EVERY change

3. Find the related Resources to discover the unique names

4. Display the error on the correct record.

Resources:

*   Apex Triggers

*   Set Class

Challenges:

1. Move the code to a helper class

Create a Trigger for the Supply

Now it's time to apply the same logic for the Supply object. We don't want any duplicate supplies either.

Challenges:

1. Make a reusable code to check for duplicate names in a list

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Schedule

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Automatically starting a new project

Ok. Our Warship building process is starting to look nice, but...

Upper management is complaining that they don't have a visibility about the future and can't plan the budget accordingly. They've asked for a way of create plans and, while we are at it, they don't wan't to have to manually change a project once it starts.

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Automatically starting a new project

1. Create a new picklist value for the Project Status picklist on the Warship. The value should be "**Planning**" and should be the first on the list and be the new default value

2. Create a new field to store the Start Date for when the project is planned. This is a Date field and must be required.

3. Create a new apex class (not trigger). It must implement the Schedulable Class and

    a)   Find all currently planned Warships that have a start date today (or in the past)

    b)   Change the Project Status of these Warships to Green

Resources:

- Apex Scheduler

Challenges:

1. Create a Unit Test

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