- Full name: Iván Kaleb Ramírez Torres
- NAO ID: 3357
- Date: September 30, 2025
- Name of the pathway in which you are enrolled: Bécalos Techno Ready
- Title of the Challenge: **Challenge 3 – Server and Database Commands**

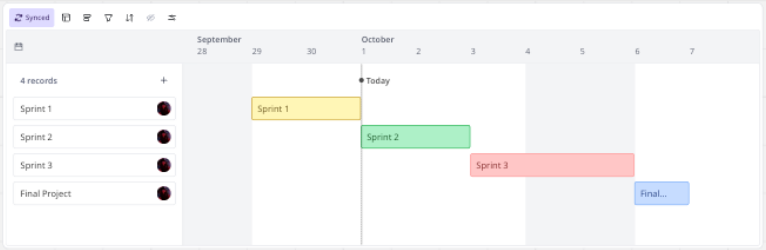
Roadmap Planning - Challenge 3

Server and Database Commands

Description

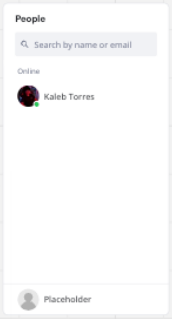
Automating the integration of information about researchers and published articles at a university by using the Google Scholar API to retrieve relevant data on researchers and research papers. This system must enable efficient integration with the institution's research database.

New view



General Objective: Automate the integration of Top 3 researcher information at the Innovation Center

Specific Objectives: Face a real-world problem solving them by completing the deliverables for each Sprint



Copy of Copy of Backlog view

Synced

	Title	Assignee	Status	Estimate	Priority	Description	Start Date	End Date	Color
1	Sprint 1	Kaleb...	In-progress	6	High	Research and document the Google Scholar API, producing a technical report and creating a GitHub repository to manage the project.	Sep 29, 2025	Sep 30, 2025	Yellow
2	Sprint 2	Kaleb...	To do	24	Medium	Develop Java code to perform GET requests to the Google Scholar Author API using the MVC (Model-View-Controller) design pattern. The code must be tested and documented.	Oct 1, 2025	Oct 2, 2025	Green
3	Sprint 3	Kaleb...	To do	15	Low	Integrate the data retrieved from the API into a database, structuring the database appropriately and handling pagination and API errors.	Oct 3, 2025	Oct 5, 2025	Orange
4	Final Project	Kaleb...	To do	6	High	Integration of the three Sprint deliverables that constitutes the final project, which must be present to the Digital NAO evaluators in two formats: An analysis and results presentation in PDF format and a video in MP4 format.	Oct 6, 2025	Oct 6, 2025	Blue

Sprint Planning

Sprint planning

Backlog | 6

Sprint 3
Kaleb Torres | Sep 22 — Sep 25

Requirement 1: Database Creation and Integration
Stage 1: Select DBMS (MySQL, PostgreSQL, SQLite, etc.).
Stage 2: Design schema with table articles including fields:
id
title
authors
publication_date
abstract
link
keywords
cited_by
Stage 3: Implement integration to store data for 2 researchers with 3 articles each.
Stage 4: Allow use of connection wizards / code generation (NetBeans, IntelliJ).

Requirement 2: GitHub Repository Update
Stage 1: Push database schema and integration code.
Stage 2: Update README.md with project details for this Sprint.
Stage 3: Configure repo permissions for Digital NAO team.

Requirement 3: Additional Considerations
Stage 1: Implement robust error handling (network, API, DB).
Stage 2: Respect API usage limits to prevent blocking.

Final Project
Kaleb Torres | Sep 26 — Sep 28

Make a video presentation explaning Analysis & Result of the Challenge 3

Current sprint | 5

Sprint 1
Kaleb Torres | Sep 16 — Sep 17

Requirement 1: Technical Report on Google Scholar API
Stage 1: Document endpoints (API URLs).
Stage 2: Describe authentication methods.
Stage 3: List query parameters.
Stage 4: Explain response formats.
Stage 5: Detail usage limits.
Stage 6: Provide code examples in multiple languages.

Requirement 2: GitHub Repository Setup
Stage 1: Create repository.
Stage 2: Write README.md with:
Project purpose.
Key functionalities.
Project relevance.
Stage 3: Upload technical report to repo.
Stage 4: Configure access permissions for Digital NAO team.

Create a Backlog & Roadmap of Challenge 2

Create a GitHub Repository for this Challenge

Next sprint | 3

Sprint 2
Kaleb Torres | Sep 18 — Sep 21

Requirement 1: Java MVC Implementation for Author API
Stage 1: Design data model to represent author information.
Stage 2: Implement view to display author search results.
Stage 3: Create controller to:
Perform GET requests (Apache HttpClient or similar).
Process API responses.
Handle errors/exceptions.
Update the view.
Stage 4: Integrate model, view, and controller into a functional application.
Stage 5: Test application with sample author searches.

Requirement 2: GitHub Repository Update
Stage 1: Push updated Java code and documentation.
Stage 2: Ensure README.md reflects new Sprint deliverables.
Stage 3: Configure repository permissions for Digital NAO team.

Closed Sprints | 0

Next steps

Next steps

Deliverables

Sprint 1

ZIP folder with:
- Backlog (PDF)
- Roadmap (PDF)
- GuitHub Repository Link
- Project documentation in PDF format

Sprint 2

ZIP folder with:
- Backlog (PDF)
- GitHub repository link in PDF format

Sprint 3

ZIP folder with:
- Backlog (PDF)
- GitHub repository link in PDF format

Final Project

ZIP folder with:
- Analysis and Results Presentation of the Proposed Solution
- Video Recording

Para una mejor visualización, visitar:

https://miro.com/app/board/uXjVJA0X69I=/