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- Name of the pathway in which you are enrolled: Bécalos Techno Ready
- Title of the Challenge: **Challenge 3 – Server and Database Commands**

Tracking Tables

Table 1 – Requirements list

Sprint	Requirements
Sprint 1: **Research and document the Google Scholar API, producing a technical report and creating a GitHub repository to manage the project.**	1. Constructing a Backlog for Challenge 2. 2. Build a Roadmap integrating all the requirements, dates, participants and Sprints for Challenge 2. 3. Document: - Document endpoints (API URLs) - Describe authentication methods - List query parameters - Explain response formats - Detail usage limits - Provide code examples. 4. Create repository - Add README.md (purpose, functionalities, relevance). - Upload technical report. - Configure access for Digital NAO team.
Sprint 2: **Develop Java code to perform GET requests to the Google Scholar Author API using the MVC (Model-View-Controller) design pattern**	- Design model to represent author information - Implement view to display author search results - Perform GET requests with HttpClient - Process API responses - Handle errors/exceptions - Update view - Combine model, view, controller - Test with sample author searches - Push MVC code - Update README.md with Sprint 2 deliverables - Ensure repo permissions

Sprint 3: **Integrate the data retrieved from the API into a database, structuring the database appropriately and handling pagination and API errors.**	- Choose DBMS (MySQL/PostgreSQL/SQLite) - Design schema with table articles (id, title, authors, pub_date, abstract, link, keywords, cited_by) - Integrate API data for 2 researchers & 3 articles each - Allow IDE connection wizards - Store API responses in DB - Implement robust error handling (network, API, DB) - Respect API usage restrictions - Push DB schema + integration code - Update README.md with Sprint 3 deliverables - Configure repo permissions
Final Project: **Document Analysis & Results for Challenge 3**	Make a video presentation explaning Analysis & Result of the Challenge 2

Table 2: Prioritize list – Challenge 2

Requirements	Stages (Steps)	Time Estimation	Deliverables
Technical Report on Google Scholar API	- Document endpoints (API URLs) - Describe authentication methods - List query parameters - Explain response formats - Detail usage limits - Provide code examples	3h	Technical report (document)
GitHub Repo Setup (Initial)	- Create repository - Add README.md (purpose, functionalities, relevance) - Upload technical report - Configure access for Digital NAO team	4h	Public GitHub repo with initial documentation
Java MVC – Data Model	- Design model to represent author information	2h	Java model class for Author
Java MVC – View	- Implement view to display author search results	6h	Java view (console/GUI)
Java MVC – Controller	- Perform GET requests with HttpClient - Process API responses - Handle errors/exceptions - Update view	2h	Java controller with working API connection
Java MVC – Integration & Testing	- Combine model, view, controller - Test with sample author searches	6h	Functional Java MVC app
GitHub Repo Update (MVC)	- Push MVC code - Update README.md with Sprint 2 deliverables - Ensure repo permissions	3h	Updated GitHub repo with MVC code
Database Setup	- Choose DBMS (MySQL/PostgreSQL/SQLite) - Design schema with table articles (id, title, authors, pub_date, abstract, link, keywords, cited_by)	8h	Database schema
Database Integration	- Integrate API data for 2 researchers & 3 articles each	5h	Functional DB with test data

	- Allow IDE connection wizards - Store API responses in DB		
Error Handling & API Limits	- Implement robust error handling (network, API, DB) - Respect API usage restrictions	3h	Stable DB integration with error management
GitHub Repo Update (DB)	- Push DB schema + integration code - Update README.md with Sprint 3 deliverables - Configure repo permissions	2h	Final GitHub repo with DB integration
Make a video presentation explaining analysis & results	1. Prepare script 2. Record video 3. Edit final file	6h	Video presentation file

As the User Stories was an exercise already made in Challenge 1, All this backlog was made according to Challenge 3 requirements for All 3 Sprints and Final Project.