



**TechnoReady In-Mexico**

**Challenge 4 – Non-Relational Databases for Storing JSON Data**

**Iván Kaleb Ramírez Torres**

**Nao ID: 3357**

October 7th, 2025

# Tracking Tables

## Table 1 – Requirements list

|  |  |
| --- | --- |
| Sprint | Requirements |
| Sprint 1:  **MongoDB Database Configuration and Development** | 1. Create and configure a GitHub repository including README (description, usage, structure). 2. Upload MongoDB backup file (collections and indexes). 3. Include scripts for importing CSV data. 4. Add screenshots of database and collections. 5. Configure access permissions for Digital NAO team. |
| Sprint 2:  **RESTful API Development (Express.js + MongoDB)** | 1. Create GitHub repository with README (description, usage, structure). 2. Develop RESTful API using Express.js and MongoDB. 3. Implement peer reviews and document fixes. 4. Add Postman/Insomnia tests with screenshots. 5. Document and organize code according to versioning. 6. Configure access permissions for Digital NAO team. |
| Sprint 3:  **New Features – Search & Filtering for RESTful API** | 1. Extend RESTful API with search/filter endpoints. 2. Update README with new features. 3. Add Postman/Insomnia tests for new endpoints. 4. Maintain access permissions for Digital NAO team. |
| Final Project:  **Document Analysis & Results for the whole project** | Make a video presentation explaning Analysis & Result of the Challenge 4. |

## Table 2: Prioritize list – Challenge 2

|  |  |  |  |
| --- | --- | --- | --- |
| Requirements | Stages (Steps) | Time Estimation | Deliverables |
| GitHub Repo Setup (Initial) | Create repo, add README (description, usage, structure), configure access | 2h | GitHub repository with initial README |
| MongoDB Database Setup | Create collections and indexes, export and upload backup file | 4h | MongoDB .bak file with collections |
| CSV Import Scripts | Write import scripts using mongoimport or Node.js, test data upload | 3h | Import scripts + verified imports |
| Documentation & Screenshots | Capture database setup evidence, upload images to repository | 2h | Screenshot folder in repo |
| Version Control Guidelines | Apply versioning (1.0.0, 1.1.0), document version updates in README | 1h | Version log in README |
| Express.js RESTful API | Initialize Node project, connect API to MongoDB, define CRUD routes | 6h | Functional API connected to DB |
| Peer Review & Fixes | Perform code review, document issues and fixes | 2h | Review report / fixes log |
| Postman/Insomnia Testing (Sprint 2) | Create tests for endpoints, add screenshots to repo | 3h | Postman collection + screenshots |
| API Documentation Update | Document endpoints, add changelog and usage guide | 2h | Updated README |
| API Search & Filtering Features | Implement query parameters for search, add sorting filters | 4h | Enhanced API with search/filter |
| Testing New Features (Sprint 3) | Postman tests for new endpoints, upload screenshots | 2h | Updated test evidence |
| Final Versioning & Permissions | Update README with final version (e.g., v1.3.4), confirm Digital NAO access | 1h | Final GitHub repository release |

As the User Stories was an exercise already made in Challenge 1, All this backlog was made according to Challenge 4 requirements for All 3 Sprints and Final Project.