# Assignment 03: Extend Your API with a Repository

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In the previous assignment, you created an API design based on your design specifications. Now we'll:

* Learn about design patterns and apply the Repository Pattern
* Use SQLModel to implement a persistence strategy
* Wire your Repository back into your API

**Steps to Take**

Here are the steps for this assignment

1. Implement a Repository for your project/API
2. Create three instantiation contexts for your API
   1. SQLModel Repository
   2. CSV Repository
   3. In-Memory Repository
3. Modify your FastAPI-driven API to use your repository

The result of your work should closely mirror what you see in the SQLModel "Heros" [FastAPI/Pydantic tutorial](https://sqlmodel.tiangolo.com/tutorial/fastapi/).

**API CRUD + Repository Persistence**

The purpose of this assignment is to have a full API + Persistence means of simple state changes for your system.

Note that there is no business logic present as of yet, we are simply facilitating CRUD operations for API + Respository-driven persistence

**Submitting your Work**

1. Since we will be working with software, please create a Github account if you do not already have one.
2. Then, create a respository on Github that you will use for the course. I would call it CIDM6330-Spring2025
3. Within that repository, create a folder called "Assignment 3"
4. All code and other artifacts should be captured within your repository.
5. Documentation for your project as MARKDOWN ([Markdown Cheat Sheet | Markdown Guide](https://www.markdownguide.org/cheat-sheet/))