

Backend Challenge

Thank you for your interest in the Python Developer position at Merit Incentives. We're looking to hire bright, hardworking team members to join our team and work on our exciting products.

As a first step we have a challenge for you to complete so that we can get to know about your coding skills.

Challenge

Create a backend application which will expose an API for frontend clients to use. So that it can have functionalities of a TODO app and store the data entered.

Functional Requirements

1. Ability to create a TODO Item with the following fields:
 - a. Title
 - b. Description
2. Ability to update a TODO Item
3. Ability to Delete a TODO Item
4. API endpoints for all CRUD functionalities of TODO Item
5. API endpoint to retrieve the full list of TODOs created

Non-Functional Requirements

1. The code should be hosted on GitHub/GitLab, and the repo should be shared with Merit Incentives
2. The application should be built using the Fast API framework (Documentation: <https://fastapi.tiangolo.com/tutorial/>)
3. The application must use PostgreSQL or mongoDB to store data
4. The code must be written in Python 3.8+
5. Any packages required must be installable via "pip install -r requirements.txt"
6. An API documentation page explaining the endpoints available (Fast API give you this out of box)
7. A README included with your repository clearly stating how to build and run your code

Bonus

1. Use Docker to dockerize your application and have it run on a docker container
2. Error handling for edge cases with a message and appropriate http response sent by API
3. Use a data migration tool for versioning database
4. Automated unit tests for your API controllers (using Pytest)

What we're looking for

1. Using high-quality existing libraries or small amounts of custom code
2. Showing your work through your commit history
3. Polished and tested work
4. Pride in craftsmanship