# Operating Systems

# Final Project

CPSY-300-C

**Docker**

**Challenges 3 & 4**

## Name:

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## Challenge 3 - Full-stack application

### Steps

* **DB Setup**

1. Create the environmental variable (.env) to store your DB parameters and make sure the configuration is aligned with your local DB connection.

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1. Now create the schema and needed table for the books, then load the required records based on the given “*init.sql”*

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* **API Setup**

1. Navigate to challenge3 folder and perform “*npm install*” to initialize the required modules.

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1. Ensure to install the “*dotenv”* package if haven’t done yet.

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1. Now check if all services are running properly. Using your browser, access the address. If the result is not expected, then return and fix it.

<http://localhost:3000/api/books>

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<http://localhost:3000/api/books/1>

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1. Finally create the “*docker-compose.yml*” which will be used as the configuration service when the image is created in Docker.

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* **Building the Docker Image**

1. Execute the docker-compose.yml using “*docker-compose up*” command

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1. Execute command “docker-compose ps” to confirm the images.

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1. Now verify the created images and test running the containers

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1. Finally test the result

<http://localhost:8080/api/books>

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<http://localhost:8080/api/books/1>

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