**PROJECT - 1**

**Multi-Container Flask Application with PostgreSQL Using Docker Compose**

**Overview**

This project sets up a Flask application with a PostgreSQL database using Docker Compose. The application connects to PostgreSQL and provides a simple API to check the database connection.

**Prerequisites**

**Before running this project, ensure the following installed:**

**-** Docker

- Docker Compose

**-** Check if Docker Compose is available in your system:

- docker-compose version

- If not installed, install it manually:

- sudo apt install docker-compose-plugin

**Project Structure**

**Flask-Docker/**

**│── app.py Flask application**

**│── requirements.txt Python dependencies**

**│── Dockerfile Dockerfile for Flask app**

**│── docker-compose.yml Docker Compose configuration**

**└── README.md Project documentation**

**Setup and Running the Application**

**Step 1: Clone the Repository**

git clone

cd Flask-Docker

**Step 2: Build and Start the Containers**

docker-compose up -d --build

This will:

- Build the Flask application image

- Start the PostgreSQL database container

**Step 3: Verify the Running Containers**

docker ps

You should see `web` (Flask app) and `db` (PostgreSQL) services running.

**Step 4: Test the Application**

Open your browser or use `curl` to access the endpoints:

- `http://localhost:5000/` → Should return `"Flask App with PostgreSQL!"`

- `http://localhost:5000/db` → Should confirm database connection



