**Step 1: Create a Simple Web Application (3 Minutes)**

We will create a simple **Flask web app** where a feature (a welcome message) is controlled using **a Feature Flag (an environment variable).**

1. **Create a new project folder and navigate into it:**

**mkdir feature-flag-app**

**cd feature-flag-app**

1. **Create a Python file named app.py**:

**touch app.py**

1. **Open app.py and add the following code:**

**app.py**

1. **Save and close the file.**

**Step 2: Create a Dockerfile (3 Minutes)**

Now, we will containerize this application using **Docker.**

1. **Create a new file named Dockerfile:**

**touch Dockerfile**

1. **Open Dockerfile and add the following content:**

Dockerfile

1. **Save and close the file.**

**📌 Step 3: Build and Run the Docker Container (3 Minutes)**

1. **Build the Docker Image:**

**docker build -t feature-flag-app .**

1. **Run the container WITHOUT enabling the new feature (default mode):**

**docker run -d -p 5000:5000 --name myapp feature-flag-app**

1. **Check if the app is running:**

**docker ps**

1. **Open a web browser or use curl to check the output:**

**curl http://localhost:5000**

✅ **Expected Output:**

⚡ Default Version - No new feature enabled.

**Step 4: Enable the Feature Flag and Redeploy (3 Minutes)**

Now, let's enable the **Feature Flag** using an **environment variable**.

1. **Stop and remove the existing container:**

**docker stop myapp**

**docker rm myapp**

1. **Run the container AGAIN but with the feature flag enabled:**

**docker run -d -p 5000:5000 --name myapp -e SHOW\_WELCOME\_MESSAGE=on feature-flag-app**

1. **Check the new output in a browser or using curl:**

**curl http://localhost:5000**

✅ **Expected Output:**

Welcome to the NEW FEATURE!

**Step 5: Toggle Feature Without Redeploying (2 Minutes - Optional)**

*"In real-world scenarios, we don’t always want to restart a container to enable or disable a feature. We can use* ***config maps, databases, or API-driven feature toggles****, but for now, let’s quickly show how environment variables work."*

1. **Stop the container:**

**docker stop myapp**

**docker rm myapp**

1. **Run the container AGAIN but this time with the feature OFF:**

**docker run -d -p 5000:5000 --name myapp -e SHOW\_WELCOME\_MESSAGE=off feature-flag-app**

1. **Check the new output:**

**curl http://localhost:5000**

✅ **Expected Output:**

Default Version - No new feature enabled.