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#\*Start of AI Generated Content\*

# **Docker Deployment Steps for Profile Management Application**

## **Step 1: Create a Dockerfile**

Create a new file named Dockerfile in the root directory of your project with the following contents:

FROM python:3.9-slim  
  
# Set working directory to /app  
WORKDIR /app  
  
# Copy requirements file  
COPY requirements.txt .  
  
# Install dependencies  
RUN pip install --no-cache-dir -r requirements.txt  
  
# Copy application code  
COPY . .  
  
# Expose port 8000 for the application  
EXPOSE 8000  
  
# Run command to start the application  
CMD ["python", "app.py"]

## **Step 2: Create a requirements.txt file**

Create a new file named requirements.txt in the root directory of your project with the following contents:

python==3.9

## **Step 3: Build the Docker Image**

Run the following command to build the Docker image:

docker build -t profile-management-app .

## **Step 4: Run the Docker Container**

Run the following command to start a new container from the built image:

docker run -p 8000:8000 profile-management-app

## **Step 5: Verify the Application**

Open a web browser and navigate to http://localhost:8000 to verify that the application is running correctly.

## **Step 6: Push the Image to Docker Hub**

Create a Docker Hub account and create a new repository for your image. Then, run the following command to push the image to Docker Hub:

docker tag profile-management-app:latest <your-username>/profile-management-app:latest  
docker push <your-username>/profile-management-app:latest

## **Step 7: Deploy to a Cloud Provider**

You can deploy your Docker container to a cloud provider such as AWS, Google Cloud, or Azure. Follow the instructions provided by your chosen cloud provider to deploy your container.

## **Example Use Case:**

To update a user's profile information, send a POST request to http://localhost:8000/update-profile with the following JSON payload:

{  
 "name": "John Doe",  
 "email": "john.doe@example.com",  
 "password": "P@ssw0rd"  
}

The application will validate the input data and update the user's profile information if the data is valid.

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