This guide will help you how to create the Python Flask Web App for the Lab

Part 1: Create a Python Flask Project with a Virtual Environment

1. **Prerequisites:**
    - Python installed on your local machine
    - Azure CLI installed
    - Azure account (if you don't have one, sign up for a free account at https://azure.com)
2. **Create a Project Directory:** Create a directory for your Flask project and navigate to it using your terminal.

    Command: mkdir myflaskapp cd myflaskapp
3. **Set up a Virtual Environment:** Create a virtual environment to isolate your project's dependencies.

    Command: python -m venv venv
4. **Activate the Virtual Environment:** On Windows:

    Command: venv\Scripts\activate

On macOS or Linux:

Command: source venv/bin/activate

5. **Install Flask:** Inside the virtual environment, install Flask using pip.

    Command: pip install Flask
6. **Create a Flask App:** Create the Flask app in a Python file (e.g., **app.py**) within your project using following code app.py
7. **Test Your App Locally:** Run your Flask app locally to ensure it's working:

    Command: flask –app app.py run

You should be able to access your app at **http://localhost:5000**.

Part 2: Deploy to Azure App Service with Azure CLI

1. **Azure Login:** Log in to your Azure account using the Azure CLI:

    Command: az login
2. **Create an Azure App Service:** Create an Azure App Service to host your Flask app. Replace **<app-name>** with a unique app name:

    Command: az webapp up --name <app-name> --sku F1

Replace **F1** with the desired service plan SKU if needed.

Enable System-Assigned Managed Identity:

Use the **az webapp identity assign** command to enable system-assigned managed identity for your App Service. Replace **<app-name>** with the name of your App Service:

Command: az webapp identity assign --name <app-name> --resource-group <resource-group>

- **<app-name>**: Replace this with the name of your App Service.
- **<resource-group>**: Replace this with the name of the resource group where your App Service is located.