Quick version - run the final app

In **less than 10 minutes** you can have a functioning app only by following this page's instructions!

Disclaimer: Ignore this page and skip to the next page for the step by step tutorial. Follow this page ONLY if you want to get the final application up and running without getting into the learning material.

First, we'll set up the NourishBot application in your development environment. By the end of this step, you'll have the final application running and ready to explore.

Step 1: Clone the project's GitHub repository

To begin, we'll clone the NourishBot application repository from GitHub. This repository contains all the source code with which we'll be working throughout this project.

Run the following command in the terminal to clone the repository by clicking on the run button `>_` :

```
git clone --no-checkout https://github.com/HaileyTQuach/Smart-Nutritional-App.git NourishBot
cd NourishBot
git checkout 5-final
```

Then, you need to set up a virtual environment to install the dependencies.

Step 2: Set up a Python virtual environment

Initialize a new Python virtual environment to keep required library versions tidy. Note, you can run the snippet directly by clicking on the run button `>_` .

```
python3.11 -m venv venv
source venv/bin/activate
```

Step 3: Install the required libraries

With your virtual environment activated, install all the required libraries via `>_` . It will take approximately **3-5 minutes** to install all the required libraries. Feel free to go grab a coffee while you wait!

This command installs `crewai` , which orchestrates AI agents for task management, and `gradio` , which builds the user-friendly web interface. Additionally, `ibm_watsonx_ai` is crucial for ingredient detection and nutritional analysis, while `langchain` and `fastapi` handle natural language generation and asynchronous operations, respectively. Other key packages include `pydantic` for data validation, `pillow` for image processing, and `requests` for API communication. Together, these packages enable the app's core functionalities, from AI-driven workflows to user interaction.

```
pip install -r requirements.txt
```

Step 4: Run the Gradio app in the terminal

```
python app.py
```

Note: After it runs successfully, you will see a message similar to the following example in the terminal:

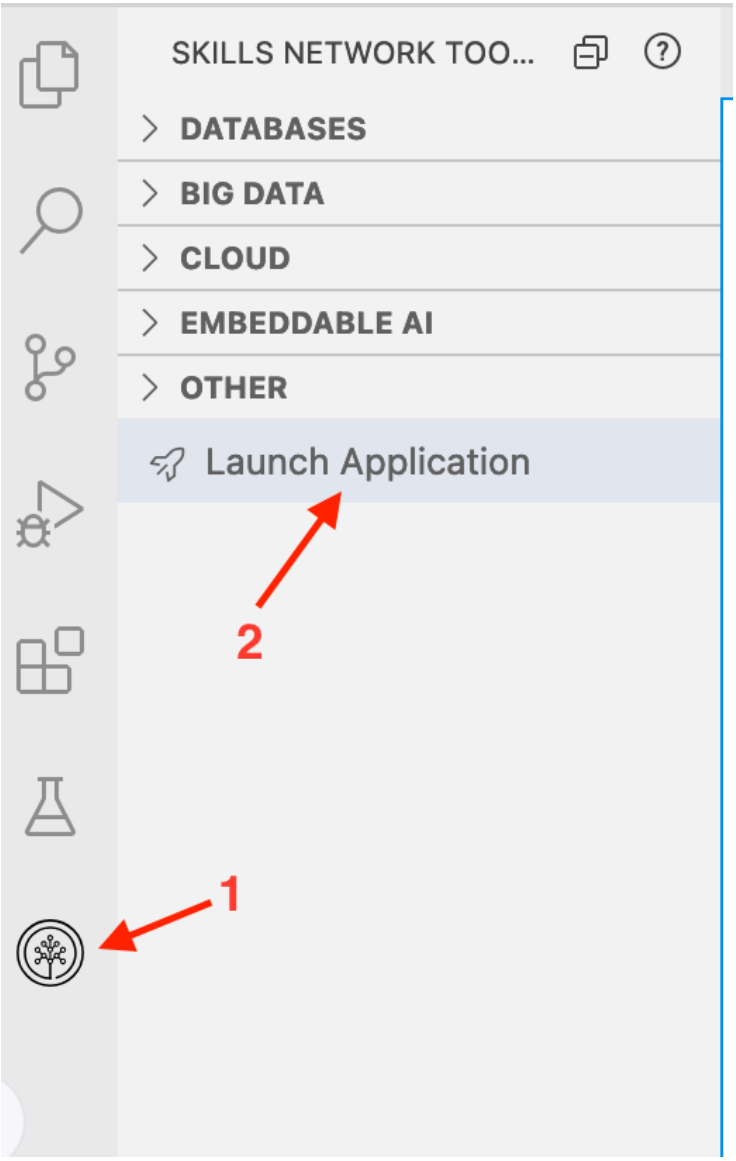
```
(venv) theiaguide-haileyquach:/home/project/NutriCoach$ python app.py
INFO:root:Extracting ingredients from image...
* Running on local URL:  http://127.0.0.1:5000
INFO:httpx:HTTP Request: GET http://127.0.0.1:5000/gradio_api/startup-events "HTTP/1.1 200 OK"
INFO:httpx:HTTP Request: HEAD http://127.0.0.1:5000/ "HTTP/1.1 200 OK"

To create a public link, set `share=True` in `launch()`.
INFO:httpx:HTTP Request: GET https://api.gradio.app/pkg-version "HTTP/1.1 200 OK"
```

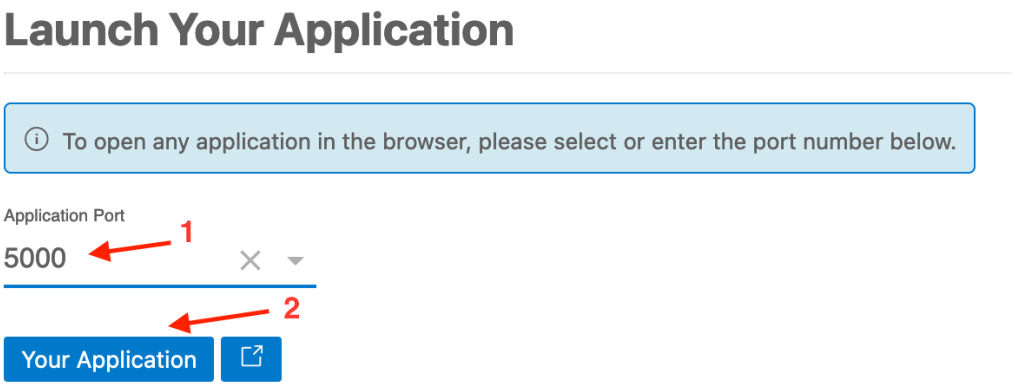
Step 5: Congrats! You can now launch the web application

Since the web application is hosted locally on port 5000, click on the following button to view the application we've developed.

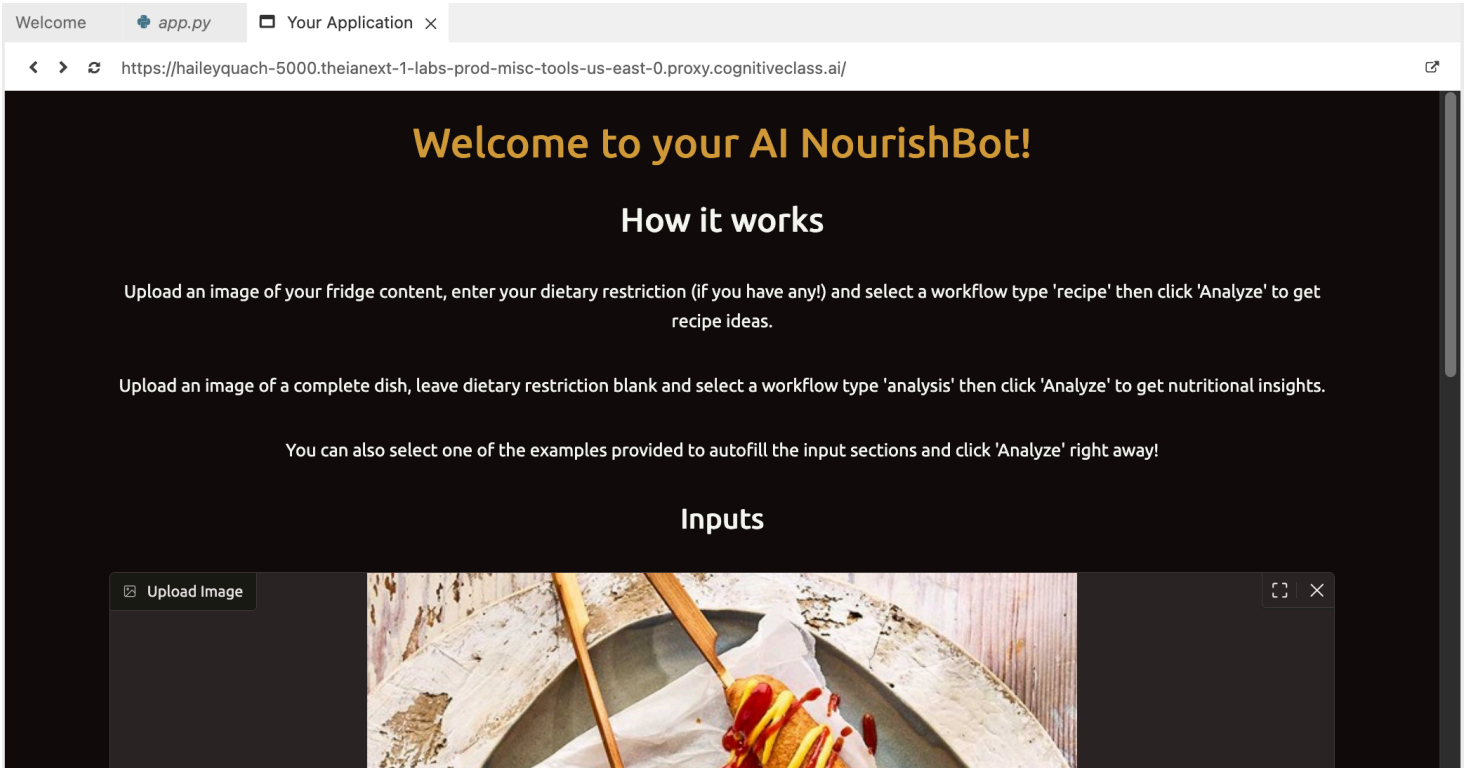
Web Application

> ***Note**: If this "Web Application" button does not work, follow the following picture instructions to launch the application.*





Once you launch your application, a window opens and you should be able to see the application view similar to the following example:



Upload an image and test out the application! After you hit the `Analyze` button, it takes around 20-30 seconds for the dietary crew (our multi-agent system) to analyze the uploaded image and provide output according to the selected workflow. **If the application fails, refresh it and try again.**

To stop execution of `app.py` in addition to closing the application tab, hit `Ctrl+C` in the terminal.

Step 6: You have completed the project!

Congratulations on successfully building your NourishBot application! You now have two options: continue with the rest of this tutorial to dive deeper into the codebase and enhance your understanding, or stop here if you're satisfied with your progress. The choice is yours!