Datathon Workshop A — Full Setup Guide
GitHub + Flask + Next.js + BigQuery

Prerequisites - Make sure you have these installed!

Python

python3 --version

https://www.python.org/downloads/

Node.js & npm

node --version

npm --version

https://nodejs.org/en/download

Git

git --version

https://git-scm.com/install/

Project Steps

1. Open Terminal

Mac: Spotlight → **Terminal**

Windows: **Command Prompt**

2. Create Project Directory

mkdir datathon-demo

3. Navigate into the Directory

cd datathon-demo

4. Clone the Starter Repository

git clone https://github.com/georgef166/GDGW1.git

5. Navigate to Backend Folder
cd GDGW1
cd backend

6. Create Virtual Environment
python3 -m venv venv

7. Upgrade pip
python3 -m pip install --upgrade pip

8. Activate Virtual Environment
Mac/Linux: **source venv/bin/activate**
Windows: **.\venv\Scripts\activate.bat**

9. Install Backend Dependencies
pip install -r requirements.txt

10. Google Cloud Setup
Go to Chrome → **https://console.cloud.google.com**

11. Create New Project
Click **New Project**

12. Create Service Account
IAM & Admin → Service Accounts → Create Service Account
Permission → Assign **BigQuery User role**

13. Create JSON Key
Keys → Add Key → JSON

14. Add Key to Backend

Open VS Code

Paste JSON contents into **/backend/keys/service-account.json**

Frontend Setup

15. Navigate to Frontend

cd ..

cd frontend

16. Install Node Packages

npm install

17. Run the Frontend

npm run dev

Then open http://localhost:3000

Backend Run Instructions

Open a new **Terminal** & activate venv

Mac/Linux: **source venv/bin/activate**

Windows: **.\venv\Scripts\activate.bat**

Run:

python3 app.py

Experiment with our BigQuery Query in Backend

Edit **SELECT**, **FROM**, **LIMIT** inside app.py.

.gitignore Reminder

Ensure backend/.gitignore contains:

venv/

keys/