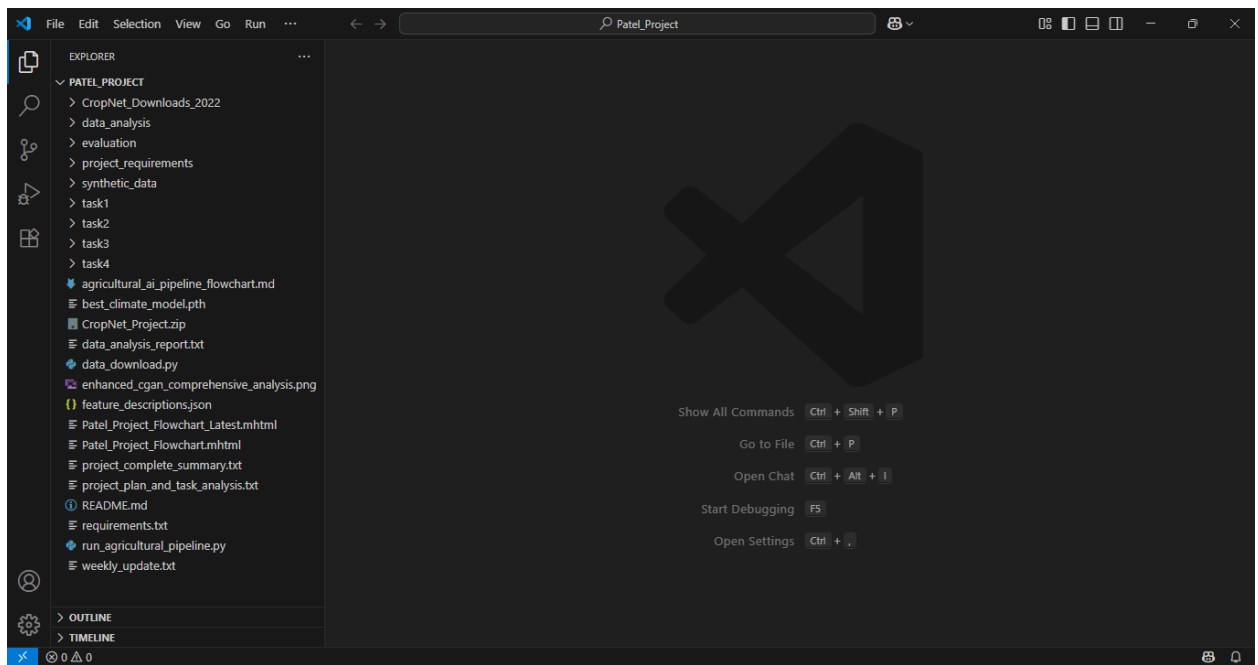
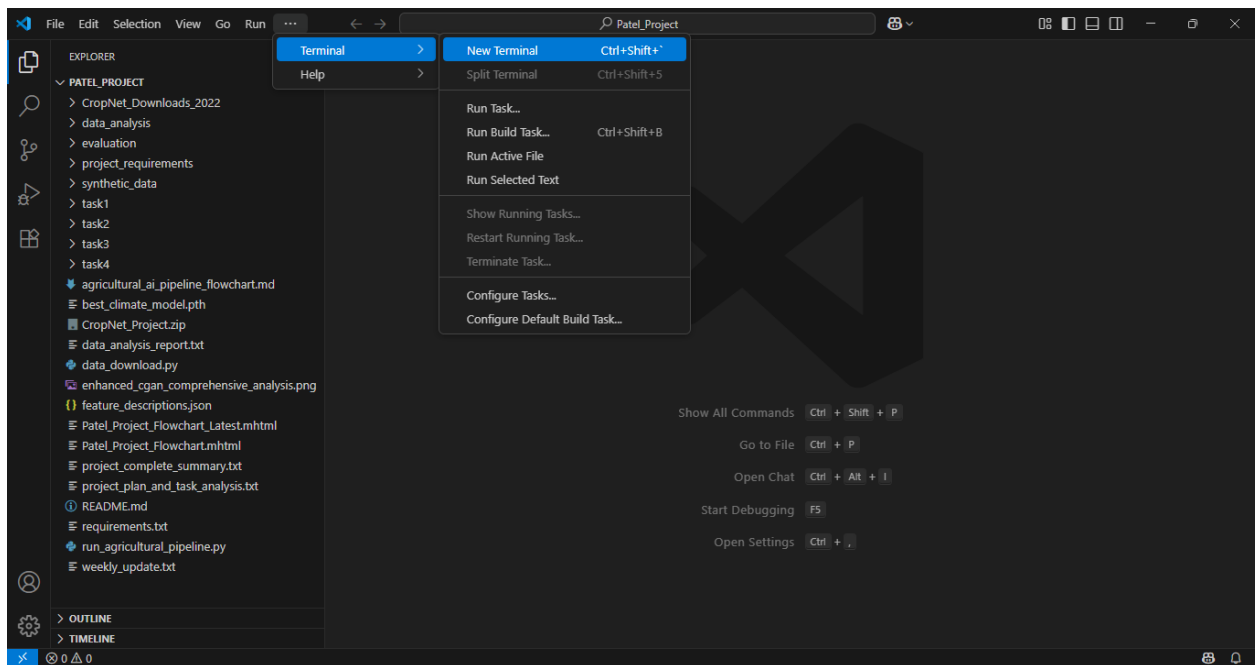


1. Unzip the downloaded folder and open that in the VScode



2. Open new terminal as below



3. Run the following commands in the terminal

- conda create --name my_project python=3.10 -y
- conda activate my_project
- pip install -r requirements.txt

d. python run_agricultural_pipeline.py

4. You can see the following logs in the terminal

```
File Edit Selection View Go Run ... Patel_Project
EXPLORER
  PATEL_PROJECT
    CropNet_Downloads_2022
    data_analysis
    evaluation
    project_requirements
    synthetic_data
    task1
    task2
    task3
    task4
    agricultural_ai_pipeline_flowchart.md
    best_climate_model.pth
    CropNet_Project.zip
    data_analysis_report.txt
    data_download.py
    enhanced_cgcn_comprehensive_analysis.png
    feature_descriptions.json
    Patel_Project_Flowchart_Latest.mhtml
    Patel_Project_Flowchart.mhtml
    project_complete_summary.txt
    project_plan_and_task_analysis.txt
    README.md
    requirements.txt
    run_agricultural_pipeline.py
    weekly_update.txt
  OUTLINE
  TIMELINE

TERMINAL
  (patel_project) PS C:\Users\daka1\Downloads\Bhargav_May_2025\Patel_Project> python run_agricultural_pipeline.py
  AGRICULTURAL AI PIPELINE RUNNER
  Started at: 2025-08-09 15:04:48
  Task(s) to run: both
  Setting up project structure...
  Project structure setup complete
  EXECUTING TASK 1: SYNTHETIC DATA GENERATION PIPELINE
  TASK 1 PIPELINE: SYNTHETIC DATA GENERATION
  Started at: 2025-08-09 15:04:48
  Setting up directories...
  Evaluation directory: ..\evaluation\task1_evaluation
  Output directory: ..\synthetic_data
  STEP 1: DATA ANALYSIS AND EXPLORATION
  Loading Corn Yield Data...
  Corn Data Shape: (1516, 14)
  Columns: ['commodity_desc', 'reference_period_desc', 'year', 'state_ansi', 'state_name', 'county_ansi', 'county_name', 'asd_code', 'asd_desc', 'domain_desc', 'source_desc', 'agg_level_desc', 'PRODUCTION, MEASURED IN BU', 'YIELD, MEASURED IN BU / ACRE']
```

5. Checkout evaluation folder for results

```
evaluation
  task1_evaluation
  task2_evaluation
    optimal_rotations.csv
    optimization_evaluation.json
    rotation_analysis_visualizations.png
    rotation_features.csv
    rotation_insights.json
    rotation_optimization_visualizations.png
    rotation_optimizer_model.pth
    rotation_pattern_analysis.csv
    rotation_sequences.csv
    training_history.json
  task3_evaluation
  task4_evaluation
  comprehensive_project_report.json
  overall_pipeline_results.json
  project_summary_report.txt
```