

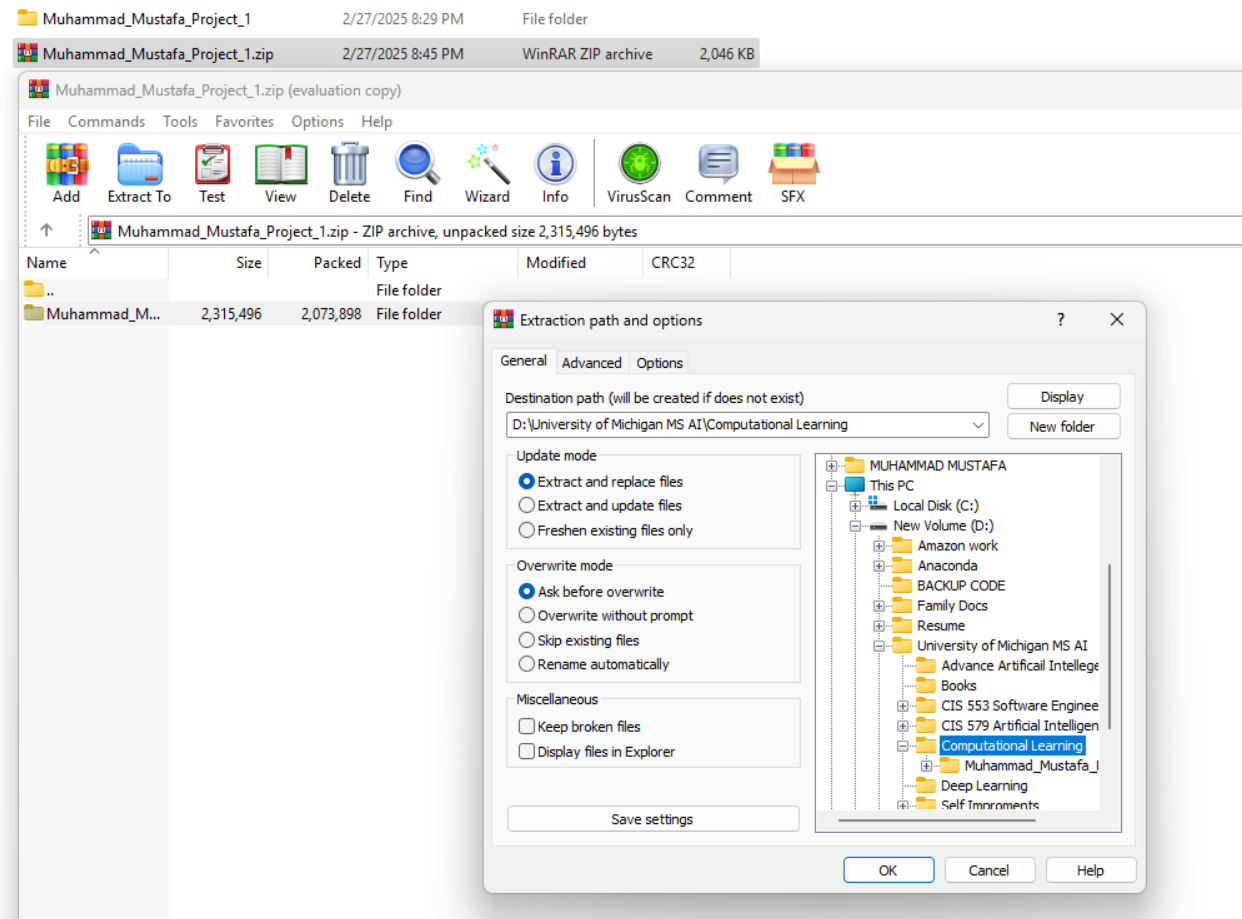
How to Run CIS_581_Project_1.ipynb in Jupyter Notebook

Step 1: Unzip the File

The project is in a ZIP file, extract it to any path you desire:

- This will create a folder named Muhammad_Mustafa_Project_1.

Muhammad_Mustafa_Project_1	2/27/2025 8:29 PM	File folder	
Muhammad_Mustafa_Project_1.zip	2/27/2025 8:45 PM	WinRAR ZIP archive	2,046 KB



Step 2: Navigate into the Unzipped Folder

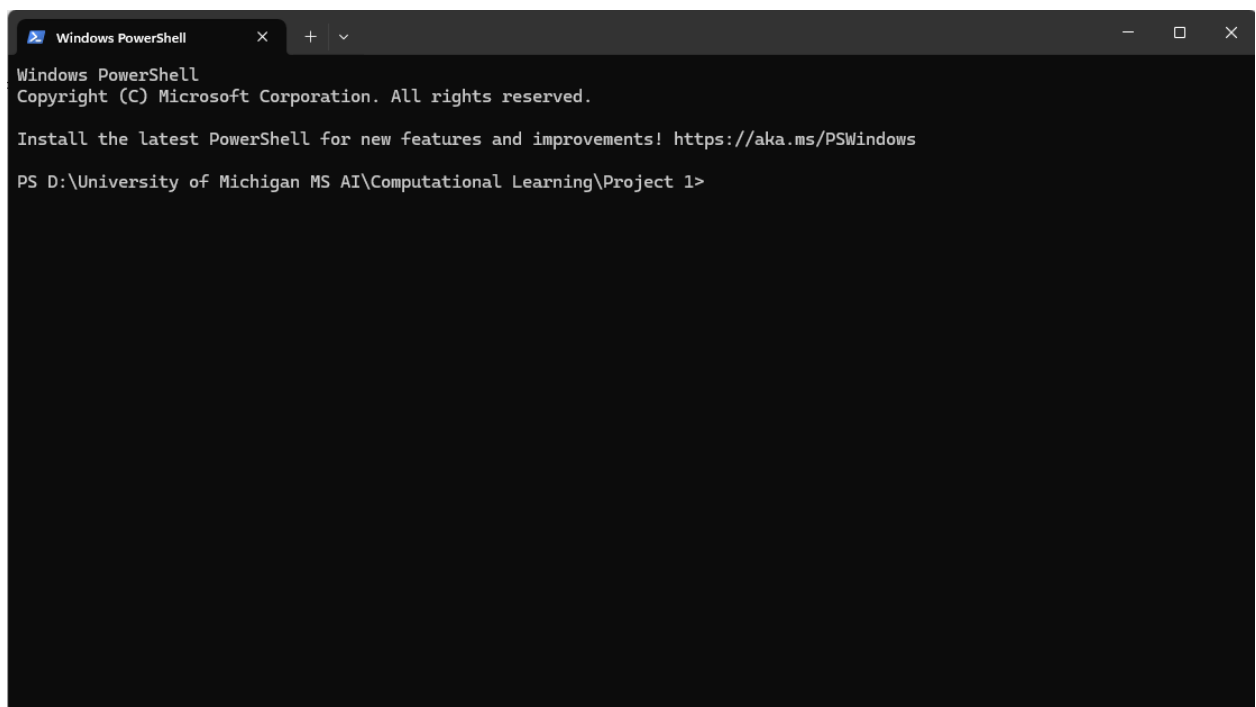
After extracting, move into the Muhammad_Mustafa_Project_1 directory:

Name	Date modified	Type	Size
.ipynb_checkpoints	2/24/2025 2:30 PM	File folder	
CIS_581_Project_1.ipynb	2/27/2025 1:07 AM	Jupyter Source File	116 KB
How to Run Project_1.docx	2/25/2025 1:49 AM	Microsoft Word D...	17 KB
Project_1.docx	2/25/2025 1:49 AM	Microsoft Word D...	37 KB
project_1_CIS_581.pdf	2/17/2025 1:59 PM	Adobe Acrobat D...	173 KB
test.dat	2/17/2025 2:06 PM	DAT File	1 KB
train.dat	2/18/2025 5:39 PM	DAT File	1 KB

Step 3: Open Terminal from the Project Folder

If using Windows:

- Open File Explorer and go to Project_1 folder.
- Right-click inside the folder and select "Open Terminal" (or "Open PowerShell").



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\University of Michigan MS AI\Computational Learning\Project 1>
```

- Now, if you have Anaconda downloaded in your laptop/PC or jupyter notebook just type jupyter notebook in terminal and press enter.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\University of Michigan MS AI\Computational Learning\Project 1> jupyter notebook
```

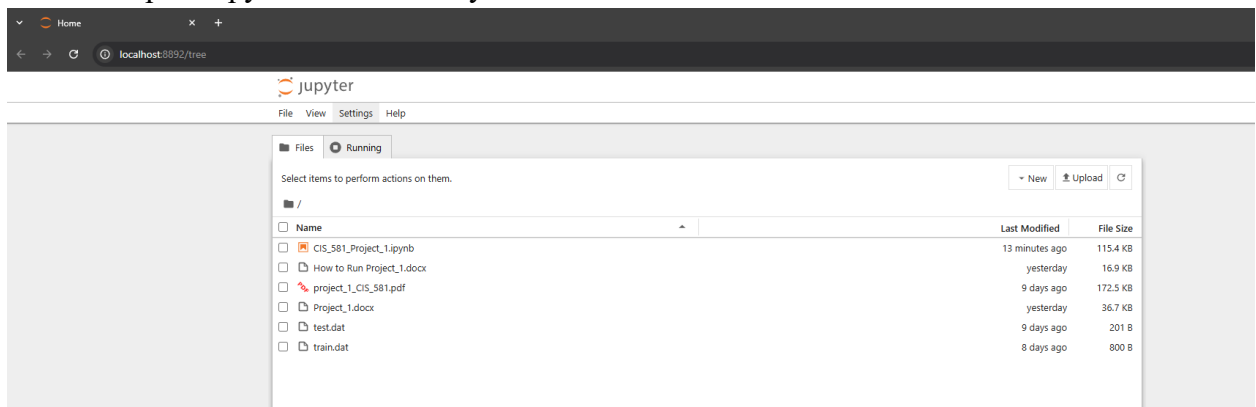
- If jupyter notebook is not installed download anaconda it will come with all the software's, you will need to run the code.

Link to download anaconda: <https://www.anaconda.com/download>

If you use Mac/Linux, you're already inside the project folder after running `cd Muhammad_Mustafa_Project_1`.

Step 4: Launch Jupyter Notebook

- This will open Jupyter Notebook in your default web browser.



- Select the folder which says “CIS_581_Project_1.ipynb”.
- It will take you to the other window which has the code in it.

jupyter CIS_581_Project_1 Last Checkpoint: 15 minutes ago

File Edit View Run Kernel Settings Help Trusted

JupyterLab Python 3 (ipykernel)

```
IF you are missing the required libraries remove the comment from this line and run it

[9]: #!pip install numpy pandas matplotlib seaborn scikit-learn

Import necessary libraries

[10]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.preprocessing import StandardScaler
from sklearn.pipeline import make_pipeline
from sklearn.linear_model import Ridge
from sklearn.model_selection import KFold, cross_val_score
from sklearn.preprocessing import PolynomialFeatures
from sklearn.metrics import mean_squared_error

Importing dataset

[11]: # Load the training data
train_data = pd.read_csv("train.dat", sep=" ", header=None, names=["Week", "Cases"])
test_data = pd.read_csv("test.dat", sep=" ", header=None, names=["Week", "Cases"])

# Display the first few rows
print("Training Data:")
print(train_data)

print("\nTest Data:")
print(test_data)

Training Data:
   Week  Cases
0     16  392205
1     75 1094890
2     39 1517928
3     82  582237
4     29  334249
..    ...    ...
68    34 1004845
```

Step 6: Run the Code Cell by Cell

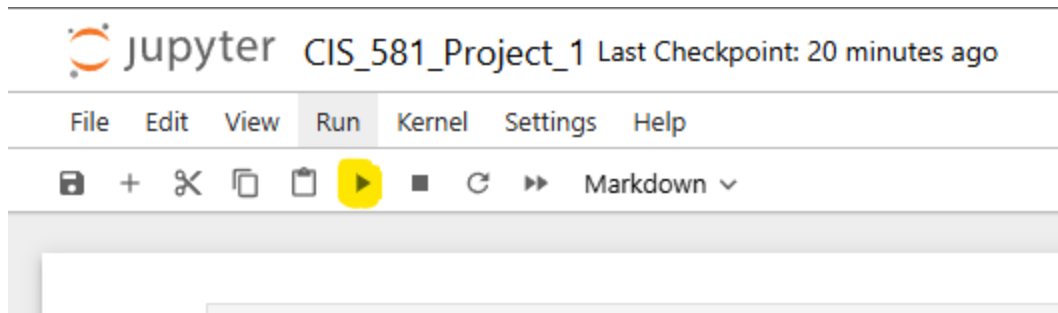
- Click on the first code cell.
- Press Shift + Enter to run each cell one by one.

```
[6]: import sys
print(sys.version)
print("Hello this means that everything is working so far.")

3.12.7 | packaged by Anaconda, Inc. | (main, Oct 4 2024, 13:17:27) [MSC v.1929 64 bit (AMD64)]
Hello this means that everything is working so far.
```

IF you are missing the required libraries remove the comment from this line and run it

- I have added some lines to be sure if jupyter notebook is working or not.
- If you will run the first cell it will display python version and a sentence stating that, “Hello this means that everything is working so far.”
- From here you can keep pressing SHIFT+ENTER or you can click on the run button on the tool bar above.



- Remember to wait for 2 seconds to make sure the cell did run, and you have the calculated value before running the next cell.