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**Task:** Automated Report Generation

**Internship:** CODTECH PYTHON INTERNSHIP

## Objective:

To develop a Python script that reads data from a file, performs basic analysis, and generates a well-formatted PDF report using libraries such as **FPDF** or **ReportLab**

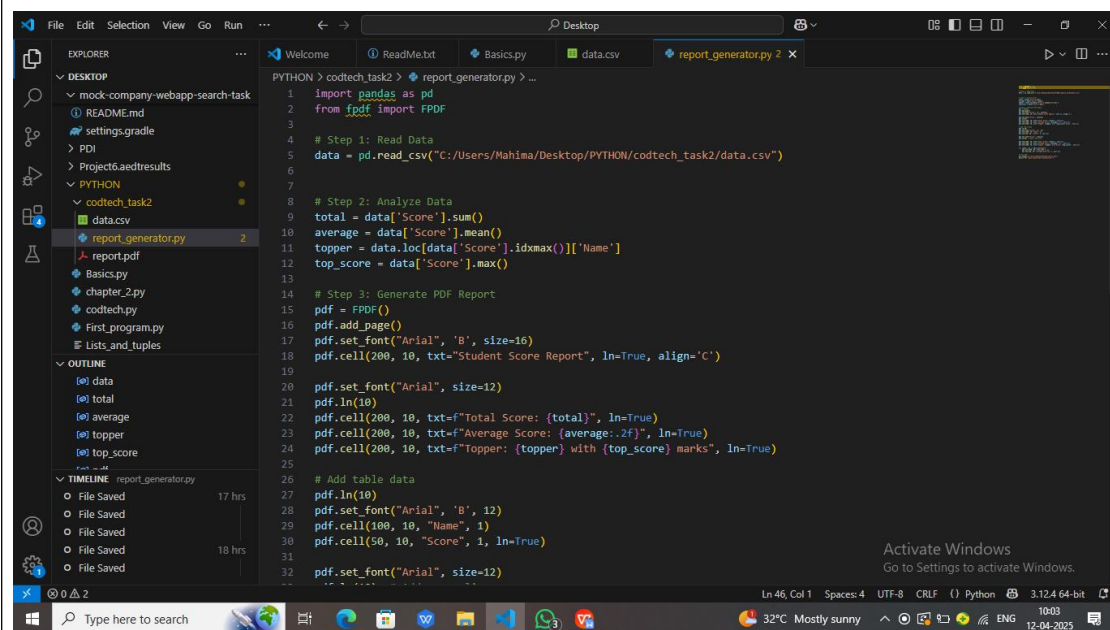
## Tools & Libraries Used:

- **Python** – Core language for scripting
- **Pandas** – For reading and analyzing data
- **FPDF** – For generating PDF reports
- **Matplotlib** – For optional charts/plots in the report

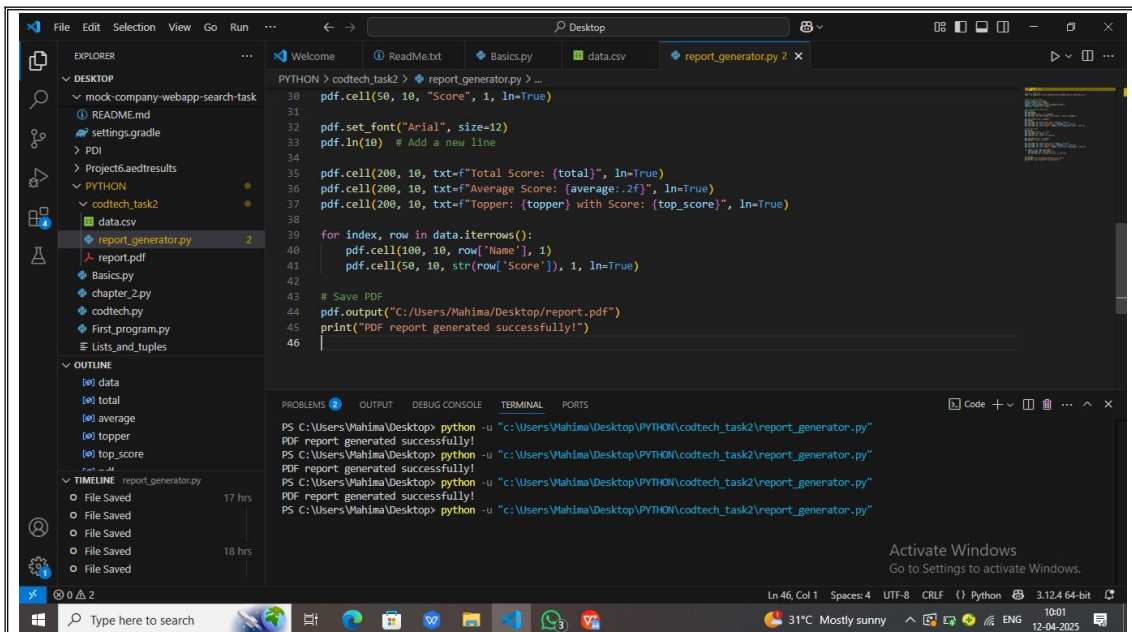
## Input CSV File: data.csv

- Name,Score
- Mahima,85
- Swaran,72
- Bittu,90
- Jayansh,68
- Usha,95

## Python Script:



```
1 import pandas as pd
2 from fpdf import FPDF
3
4 # Step 1: Read Data
5 data = pd.read_csv("C:/Users/Mahima/Desktop/PYTHON/codtech_task2/data.csv")
6
7
8 # Step 2: Analyze Data
9 total = data['Score'].sum()
10 average = data['Score'].mean()
11 toppper = data.loc[data['Score'].idxmax()]['Name']
12 top_score = data['Score'].max()
13
14 # Step 3: Generate PDF Report
15 pdf = FPDF()
16 pdf.add_page()
17 pdf.set_font("Arial", 'B', size=16)
18 pdf.cell(200, 10, txt="Student Score Report", ln=True, align='C')
19
20 pdf.set_font("Arial", size=12)
21 pdf.ln(10)
22 pdf.cell(200, 10, txt=f"Total Score: {total}", ln=True)
23 pdf.cell(200, 10, txt=f"Average Score: {average:.2f}", ln=True)
24 pdf.cell(200, 10, txt=f"Topper: {toppper} with {top_score} marks", ln=True)
25
26 # Add table data
27 pdf.ln(10)
28 pdf.set_font("Arial", 'B', 12)
29 pdf.cell(100, 10, "Name", 1)
30 pdf.cell(50, 10, "Score", 1, ln=True)
31
32 pdf.set_font("Arial", size=12)
```



## Output File: report.pdf

- **Location:** C : /Users/Mahima/Desktop/report.pdf
- The PDF includes:
- A title
- Summary: Total Score, Average, Topper
- A table of student names and scores

## Deliverables:

- data.csv – Input file
- report.pdf – Output file
- task2\_script.py – Python script

## Conclusion:

Successfully implemented automated PDF report generation using Python. Gained practical experience in file handling, data analysis using pandas, and PDF creation using the FPDF library. This task enhanced my understanding of presenting data-driven insights in a clean, professional format.

**Thanks to CODTECH for the opportunity.**