In [1]:
```
pip install pandas fpdf
```

```
Defaulting to user installation because normal site-packages is not writeableNot
e: you may need to restart the kernel to use updated packages.
  DEPRECATION: Building 'fpdf' using the legacy setup.py bdist_wheel mechanism, w
hich will be removed in a future version. pip 25.3 will enforce this behaviour ch
ange. A possible replacement is to use the standardized build interface by settin
g the `--use-pep517` option, (possibly combined with `--no-build-isolation`), or
adding a `pyproject.toml` file to the source tree of 'fpdf'. Discussion can be fo
und at https://github.com/pypa/pip/issues/6334
Requirement already satisfied: pandas in c:\programdata\anaconda3\lib\site-packag
es (2.2.3)
Collecting fpdf
  Downloading fpdf-1.7.2.tar.gz (39 kB)
  Preparing metadata (setup.py): started
  Preparing metadata (setup.py): finished with status 'done'
Requirement already satisfied: numpy>=1.26.0 in c:\programdata\anaconda3\lib\site
-packages (from pandas) (2.1.3)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\programdata\anaconda3
\lib\site-packages (from pandas) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\programdata\anaconda3\lib\site-
packages (from pandas) (2024.1)
Requirement already satisfied: tzdata>=2022.7 in c:\programdata\anaconda3\lib\sit
e-packages (from pandas) (2025.2)
Requirement already satisfied: six>=1.5 in c:\programdata\anaconda3\lib\site-pack
ages (from python-dateutil>=2.8.2->pandas) (1.17.0)
Building wheels for collected packages: fpdf
  Building wheel for fpdf (setup.py): started
  Building wheel for fpdf (setup.py): finished with status 'done'
  Created wheel for fpdf: filename=fpdf-1.7.2-py2.py3-none-any.whl size=40714 sha
256=d56830b03e1c198e815b0f3fb88d65558c4a50d124ae3f50f0ba82439ed0edf1
  Stored in directory: c:\users\kiruthika\appdata\local\pip\cache\wheels\aa\da\11
\a3189f34ddc13c26a2d0f329eac46b728c7f31c39e4dc26243
Successfully built fpdf
Installing collected packages: fpdf
Successfully installed fpdf-1.7.2
```

In [2]:
```
import pandas as pd
from fpdf import FPDF
```

In [4]:
```
df=pd.read_csv('C:/Users/kiruthika/OneDrive/Desktop/students.csv')
```

In [5]:
```
df["Total"] = df[["Maths", "Science", "English"]].sum(axis=1)
df["Average"] = df["Total"] / 3

def grade(avg):
    if avg >= 80:
        return "A"
    elif avg >= 60:
        return "B"
    elif avg >= 40:
        return "C"
    else:
        return "Fail"
```

In [6]:
```
df["Grade"] = df["Average"].apply(grade)
df["Result"] = df["Grade"].apply(lambda x: "PASS" if x != "Fail" else "FAIL")
```

In [7]:
```
pdf = FPDF()
pdf.set_auto_page_break(auto=True, margin=15)

for index, row in df.iterrows():
    pdf.add_page()

    # Title
    pdf.set_font("Arial", "B", 16)
    pdf.cell(0, 10, "STUDENT PERFORMANCE REPORT", ln=True, align="C")
    pdf.ln(10)

    # Student Details
    pdf.set_font("Arial", size=12)
    pdf.cell(0, 8, f"Roll No : {row['Roll No']}", ln=True)
    pdf.cell(0, 8, f"Name    : {row['Name']}", ln=True)
    pdf.ln(5)
    pdf.cell(0, 8, f"Maths   : {row['Maths']}", ln=True)
    pdf.cell(0, 8, f"Science : {row['Science']}", ln=True)
    pdf.cell(0, 8, f"English : {row['English']}", ln=True)
    pdf.ln(5)

    # Results
    pdf.cell(0, 8, f"Total Marks : {row['Total']}", ln=True)
    pdf.cell(0, 8, f"Average     : {row['Average']:.2f}", ln=True)
    pdf.cell(0, 8, f"Grade       : {row['Grade']}", ln=True)
    pdf.cell(0, 8, f"Result      : {row['Result']}", ln=True)
```

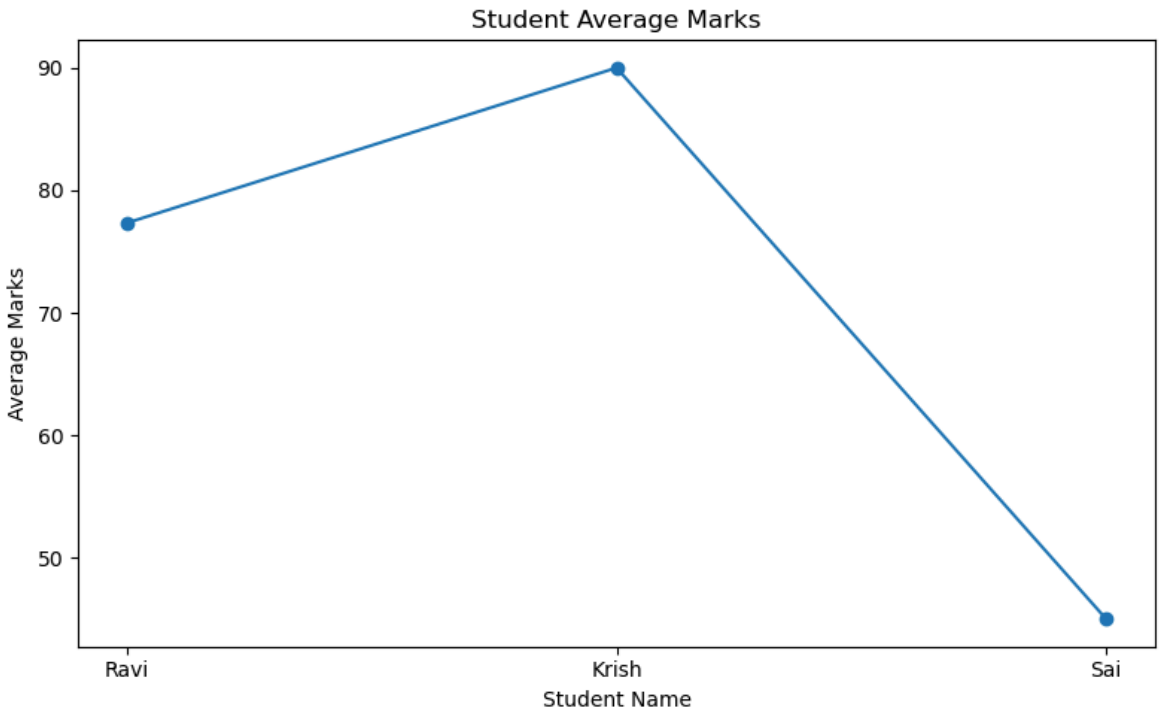
In [8]:
```
pdf.output("Student_Performance_Report.pdf")

print("PDF Report Generated Successfully!")
```

```
PDF Report Generated Successfully!
```

In [11]:
```
import matplotlib.pyplot as plt
```

In [12]:
```
plt.figure(figsize=(8, 5))
plt.plot(df['Name'], df['Average'], marker='o')
plt.title('Student Average Marks')
plt.xlabel('Student Name')
plt.ylabel('Average Marks')
plt.tight_layout()
plt.savefig('report_plot.png')
plt.show()
```


Student Average Marks
90
80
70
60
50
Average Marks
Ravi
Krish
Sai
Student Name

In [ ]: