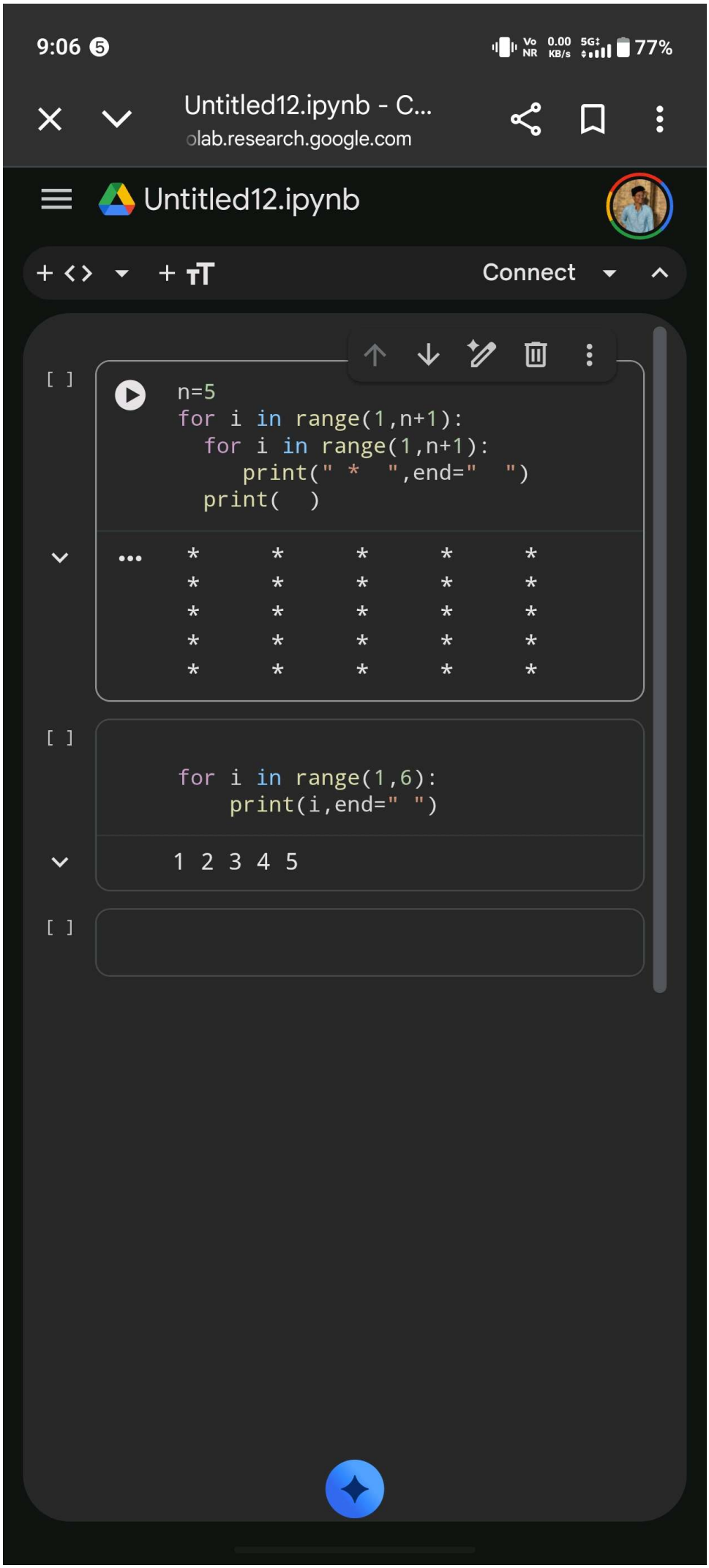
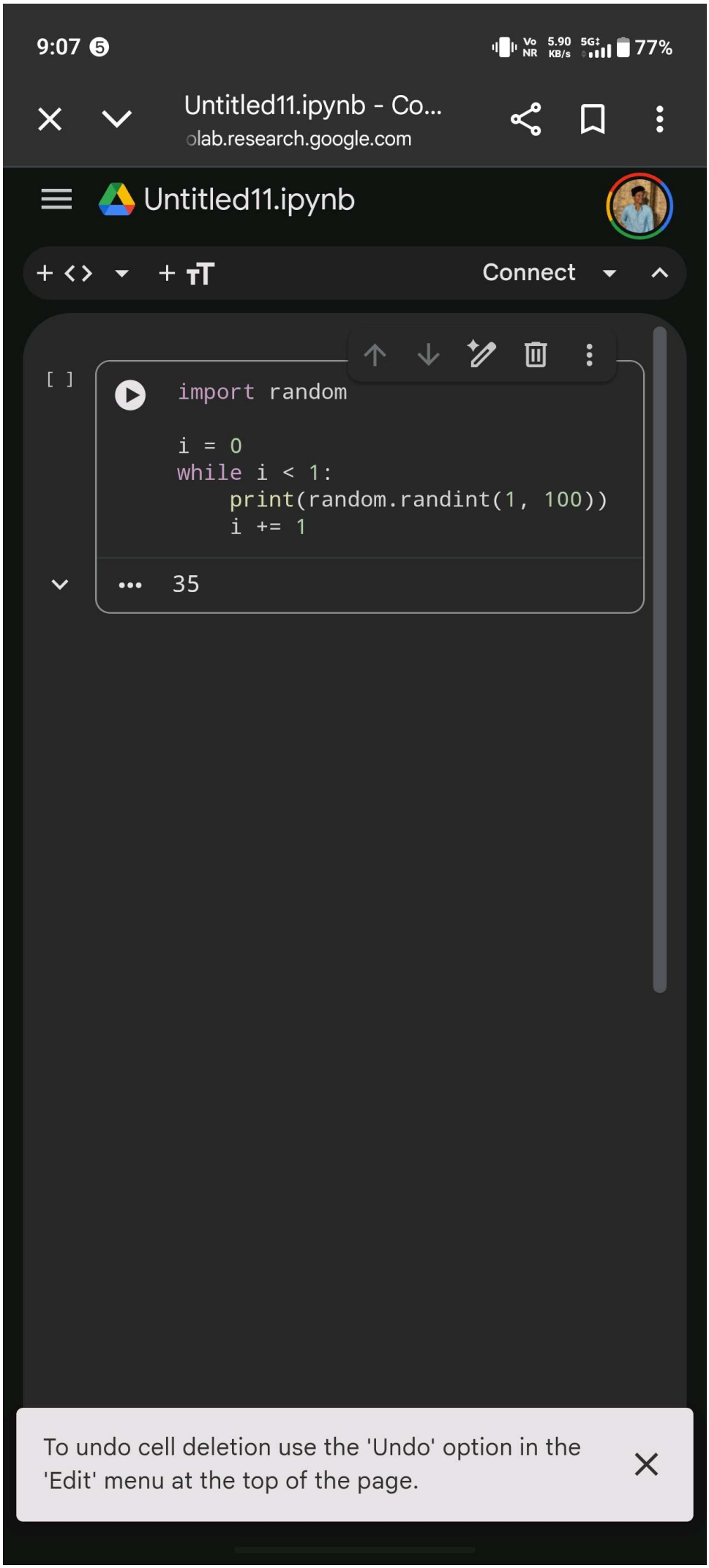
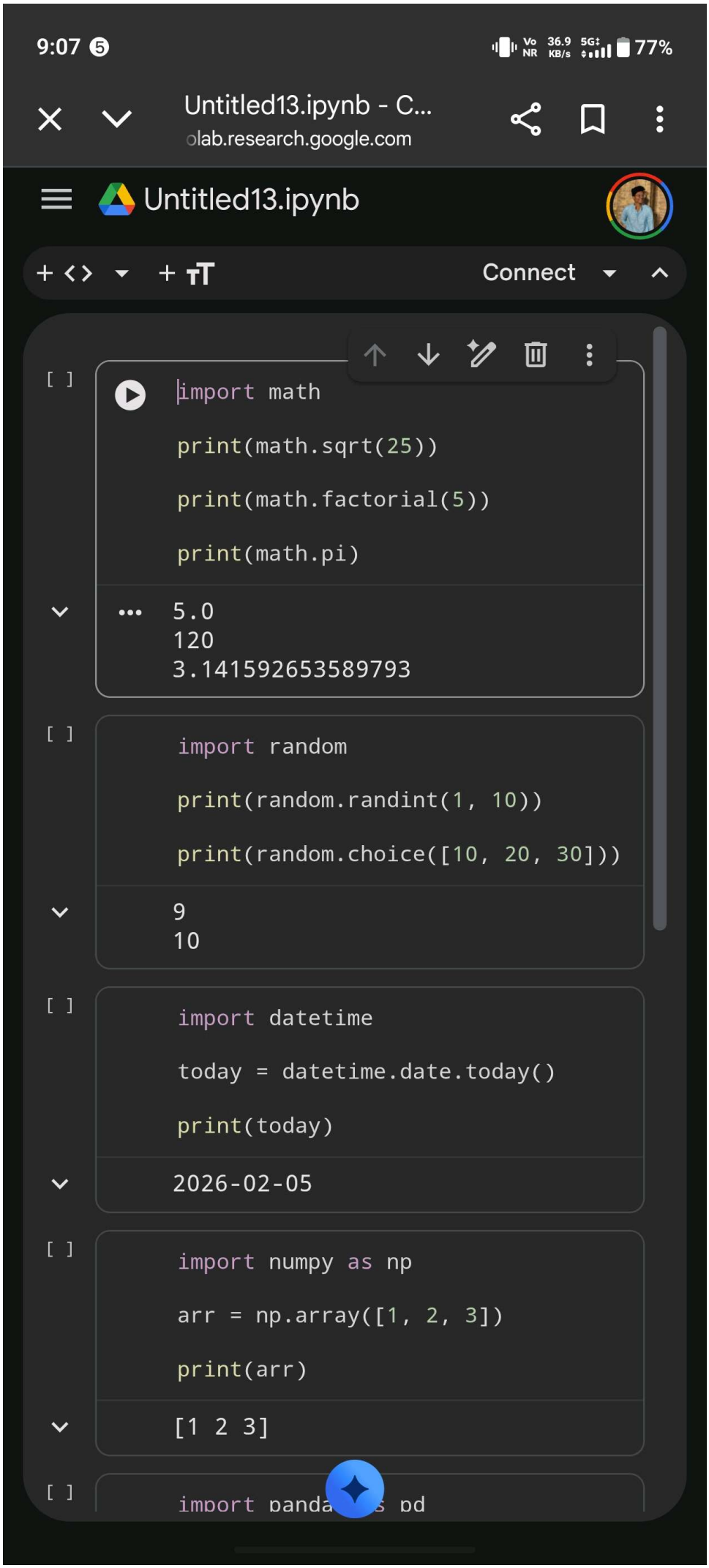
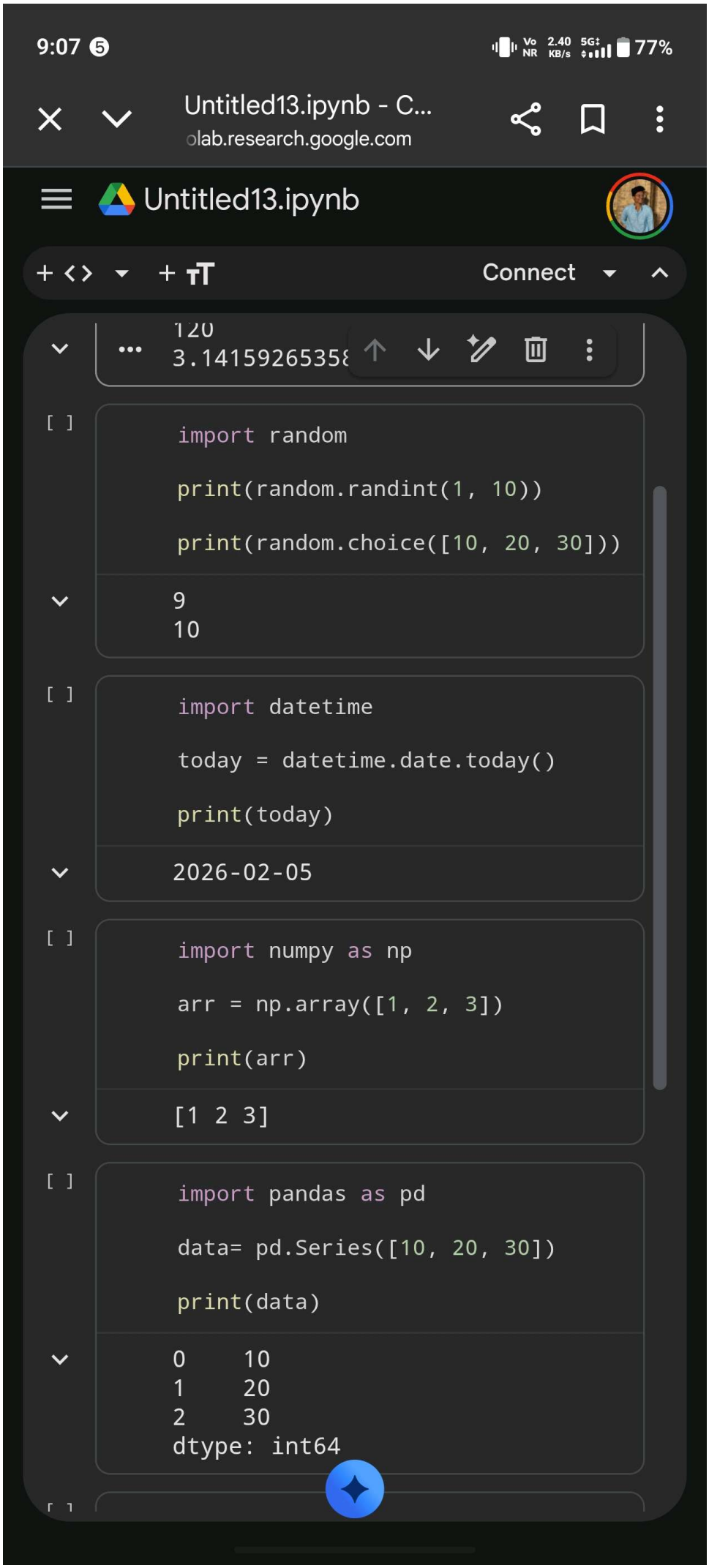
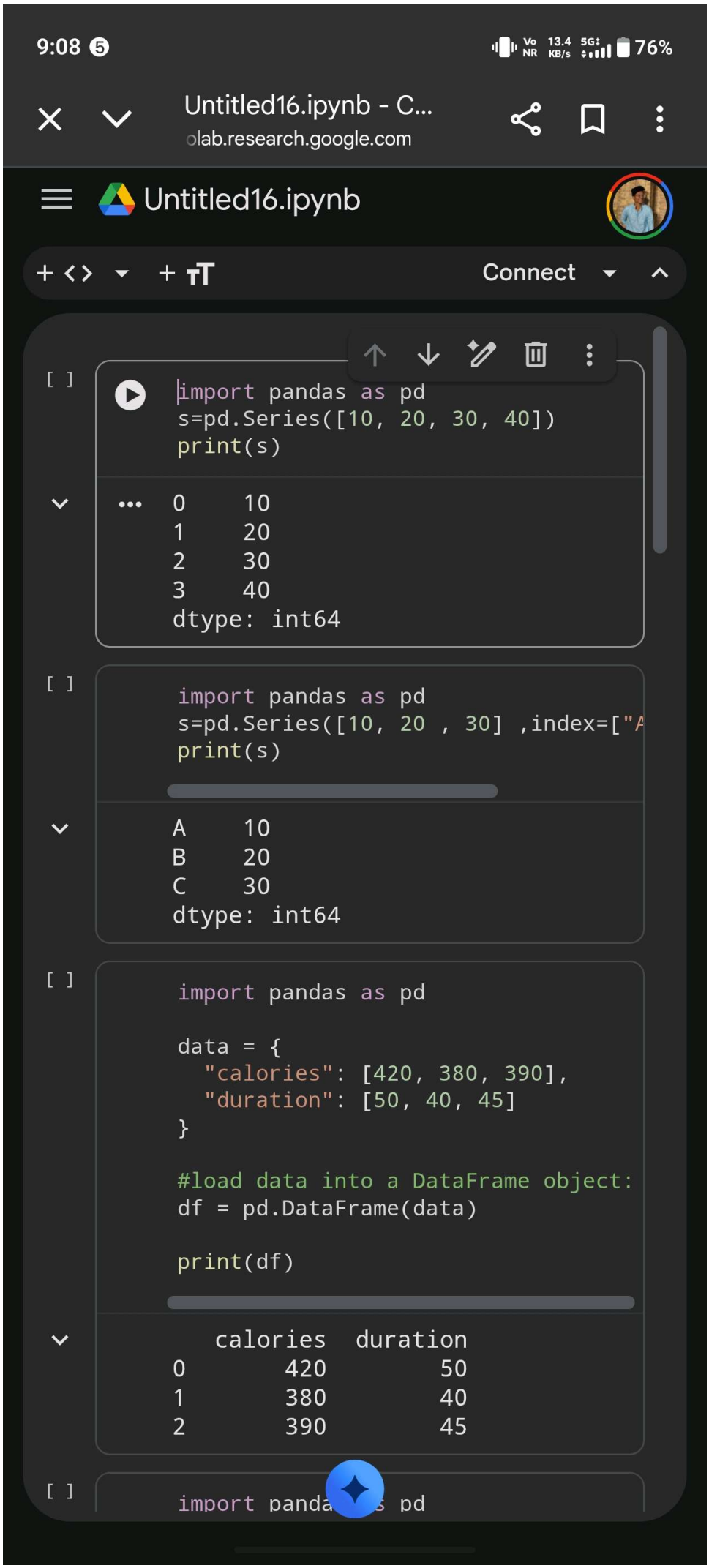

9:06
77%
Untitled12.ipynb - C...
olab.research.google.com
Untitled12.ipynb
Connect
[ ]
n=5
for i in range(1,n+1):
for i in range(1,n+1):
print(" * ",end=" ")
print( )
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
[ ]
for i in range(1,6):
print(i,end=" ")
1 2 3 4 5
[ ]


9:07
77%
Untitled11.ipynb - Co...
olab.research.google.com
Untitled11.ipynb
Connect
[ ]
import random
i = 0
while i < 1:
print(random.randint(1, 100))
i += 1
35
To undo cell deletion use the 'Undo' option in the 'Edit' menu at the top of the page.


9:07
Untitled13.ipynb - C...
olab.research.google.com
Untitled13.ipynb
Connect
[ ]
import math
print(math.sqrt(25))
print(math.factorial(5))
print(math.pi)
5.0
120
3.141592653589793
[ ]
import random
print(random.randint(1, 10))
print(random.choice([10, 20, 30]))
9
10
[ ]
import datetime
today = datetime.date.today()
print(today)
2026-02-05
[ ]
import numpy as np
arr = np.array([1, 2, 3])
print(arr)
[1 2 3]
[ ]
import panda pd


9:07
77%
Untitled13.ipynb - C...
olab.research.google.com
Untitled13.ipynb
Connect
120
3.1415926535
[ ]
import random
print(random.randint(1, 10))
print(random.choice([10, 20, 30]))
9
10
[ ]
import datetime
today = datetime.date.today()
print(today)
2026-02-05
[ ]
import numpy as np
arr = np.array([1, 2, 3])
print(arr)
[1 2 3]
[ ]
import pandas as pd
data= pd.Series([10, 20, 30])
print(data)
0 10
1 20
2 30
dtype: int64


9:08
76%
Untitled16.ipynb - C...
olab.research.google.com
Untitled16.ipynb
Connect
[ ]
import pandas as pd
s=pd.Series([10, 20, 30, 40])
print(s)
0 10
1 20
2 30
3 40
dtype: int64
[ ]
import pandas as pd
s=pd.Series([10, 20 , 30] ,index=["A
print(s)
A 10
B 20
C 30
dtype: int64
[ ]
import pandas as pd
data = {
"calories": [420, 380, 390],
"duration": [50, 40, 45]
}
#load data into a DataFrame object:
df = pd.DataFrame(data)
print(df)
calories duration
0 420 50
1 380 40
2 390 45
[ ]
import panda s pd

Untitled16.ipynb

Connect

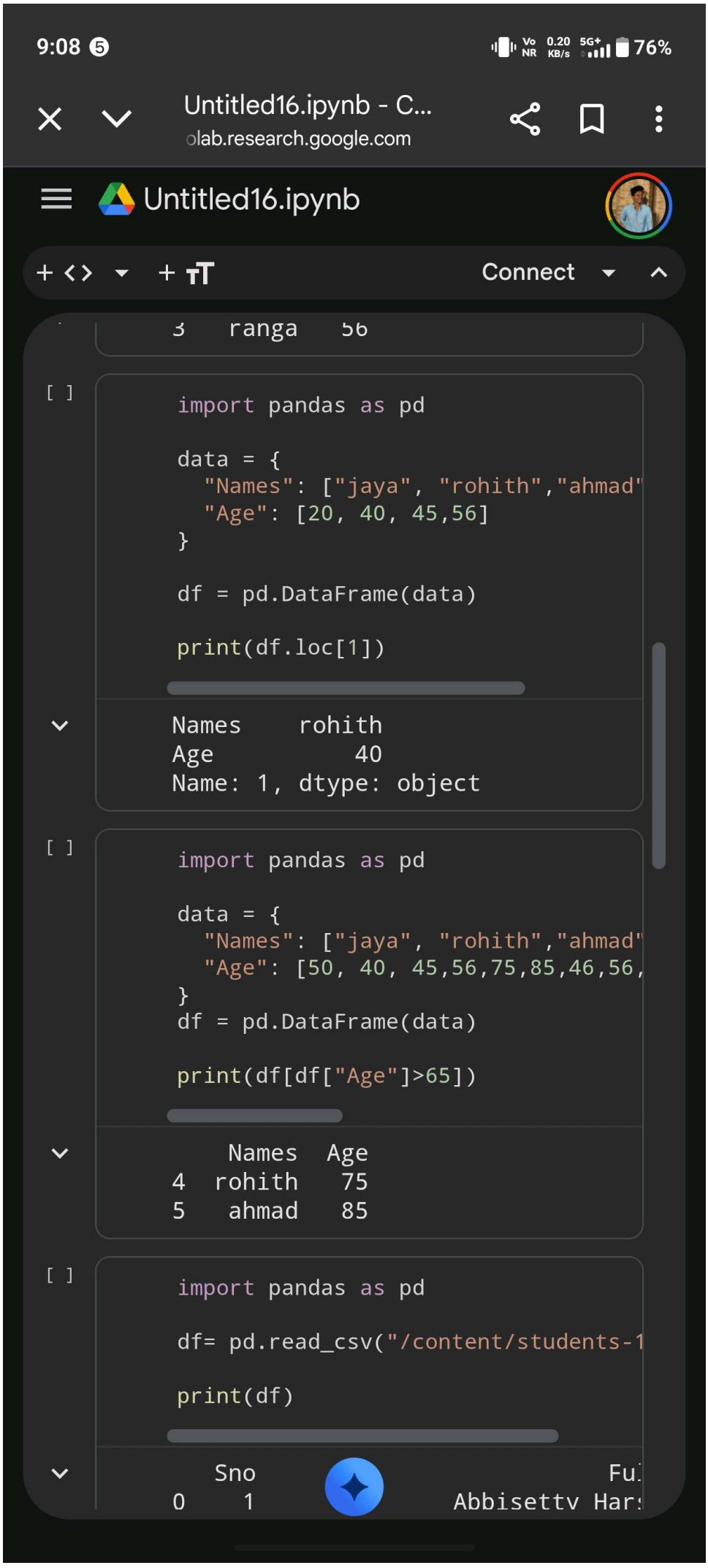
```
[ ]
import pandas as pd

data = {
  "calories": [420, 380, 390],
  "duration": [50, 40, 45]
}

#load data into a DataFrame object:
df = pd.DataFrame(data)

print(df)
```

```
   calories  duration
0       420        50
1       380        40
2       390        45
```

```
[ ]
import pandas as pd

data = {
  "Names": ["jaya", "rohith","ahmad"
  "Age": [20, 40, 45,56]
}

df = pd.DataFrame(data)

print(df)
```

```
    Names  Age
0    jaya   20
1  rohith   40
2   ahmad   45
3   ranga   56
```

```
[ ]
import pandas as pd

data = {
  "Names": [ya", "rohith","ahmad"
  "Age": [20  0, 45,56]
```


9:08
76%
Untitled16.ipynb - C...
olab.research.google.com
Untitled16.ipynb
Connect
3 ranga 56
[ ]
import pandas as pd
data = {
"Names": ["jaya", "rohith","ahmad"
"Age": [20, 40, 45,56]
}
df = pd.DataFrame(data)
print(df.loc[1])
Names rohith
Age 40
Name: 1, dtype: object
[ ]
import pandas as pd
data = {
"Names": ["jaya", "rohith","ahmad"
"Age": [50, 40, 45,56,75,85,46,56,
}
df = pd.DataFrame(data)
print(df[df["Age"]>65])
Names Age
4 rohith 75
5 ahmad 85
[ ]
import pandas as pd
df= pd.read_csv("/content/students-1
print(df)
Sno Fu
0 1 Abbisettv Har

```
5   ahmad   85
```

[ ]

```
import pandas as pd

df= pd.read_csv("/content/students-1

print(df)
```

```
   Sno                          Ful
0    1                Abbisetty Hars
1    2                    Akumalla I
2    3                 Alpuri Sri la
3    4                    ALUR GURUI
4    5                 Amarachinta A
5    6                     Amreena M
6    7  Anumalaguthi Venkata Sai D
7    8                 Anumula Chait
8    9                        Aqsa S
9   10                   Arwety Sail
```

[ ]

```
import pandas as pd

df= pd.read_csv("/content/students-1

print("Means:",df["Marks"].mean())

print("Max:",df["Marks"].max())

print("Min:",df["Marks"].min())

print("Sum:",df["Marks"].sum())
```

```
Means: 81.4
Max: 90
Min: 66
Sum: 814
```

[ ]

```
import panda
```

Untitled16.ipynb

Connect

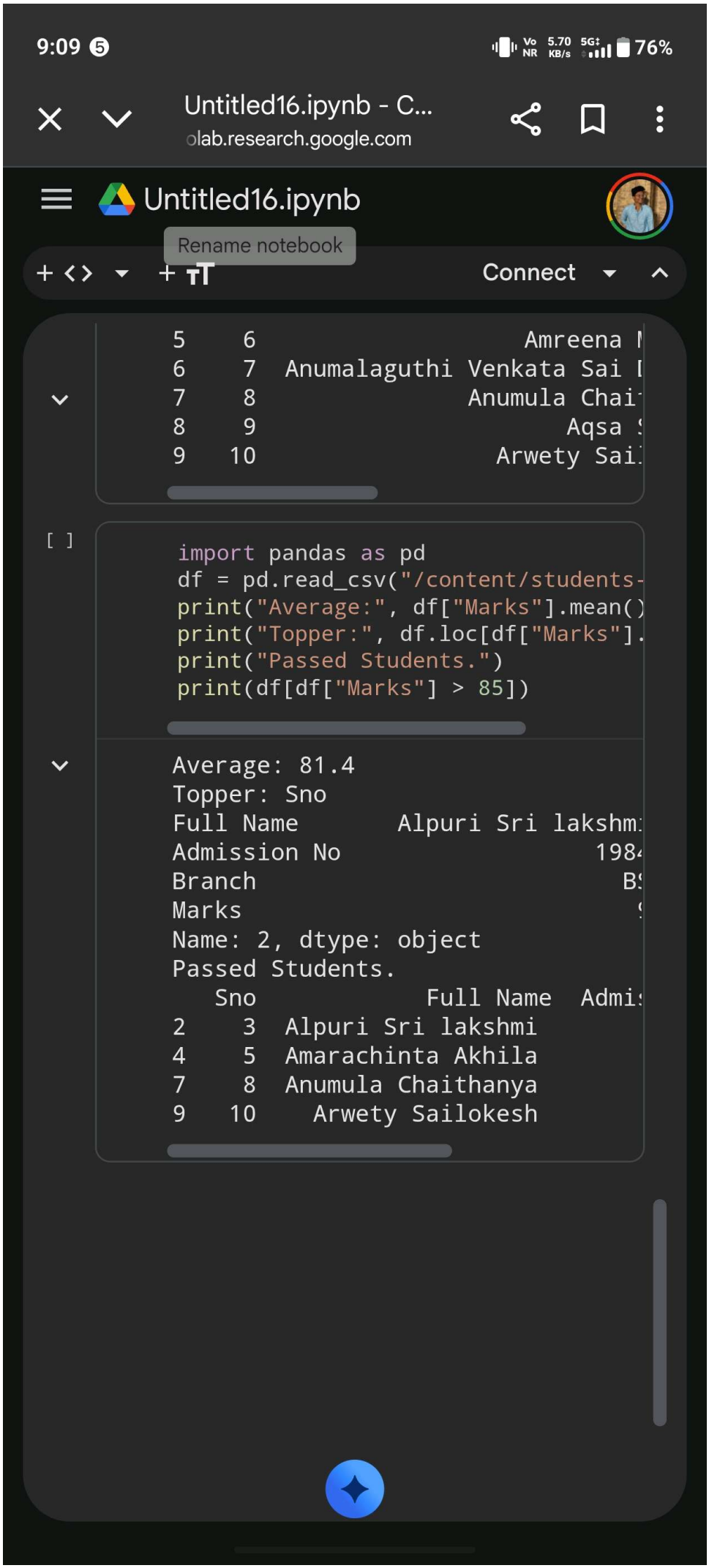
```
[ ]
import pandas as pd

df= pd.read_csv("/content/students-1
print(df.groupby("Branch")["Marks"].
```

```
Branch
BCA     66
BCom    66
BSC     78
Name: Marks, dtype: int64
```

```
[ ]
import pandas as pd

df= pd.read_csv("/content/students-1

df["Grade"] = df["Marks"].apply(
lambda x: "A" if x >= 90 else "B")

print(df)
```

```
   Sno                          Fu
0    1              Abbisetty Har
1    2                  Akumalla
2    3               Alpuri Sri l
3    4                  ALUR GURU
4    5               Amarachinta
5    6                   Amreena
6    7  Anumalaguthi Venkata Sai
7    8               Anumula Chai
8    9                      Aqsa
9   10                Arwety Sai
```

```
[ ]
import pandas as pd
df = pd.read_csv("/content/students-
print("Average:", df["Marks"].mean()
print("Topper:", df.loc[df["Marks"].
print("Passe tudents.")
print(df[df[ ks"] > 85])
```


9:09
76%
Untitled16.ipynb - C...
olab.research.google.com
Untitled16.ipynb
Rename notebook
Connect
5 6 Amreena
6 7 Anumalaguthi Venkata Sai
7 8 Anumula Chai
8 9 Aqsa
9 10 Arwety Sai
[ ]
import pandas as pd
df = pd.read_csv("/content/students-
print("Average:", df["Marks"].mean()
print("Topper:", df.loc[df["Marks"].
print("Passed Students.")
print(df[df["Marks"] > 85])
Average: 81.4
Topper: Sno
Full Name Alpuri Sri lakshm
Admission No 198
Branch B
Marks
Name: 2, dtype: object
Passed Students.
Sno Full Name Admi
2 3 Alpuri Sri lakshmi
4 5 Amarachinta Akhila
7 8 Anumula Chaithanya
9 10 Arwety Sailokesh

9:09 5

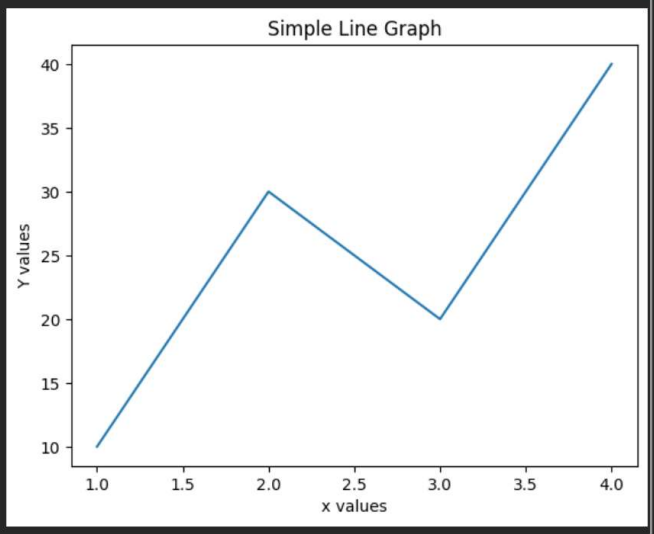
Untitled17.ipynb - Co...
olab.research.google.com

Untitled17.ipynb

Connect

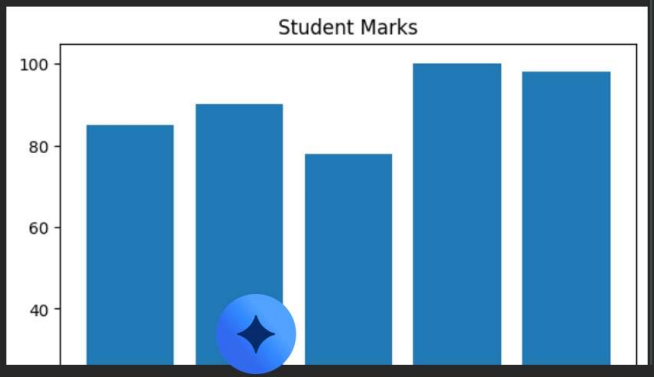
[ ]

```
import matplotlib.pyplot as plt
x = [1, 2, 3, 4]
y = [10, 30, 20, 40]
plt.plot(x, y)
plt.xlabel("x values")
plt.ylabel("Y values")
plt.title ("Simple Line Graph")
plt.show()
```



[ ]

```
import matplotlib. pyplot as pit
names = ["A", "B", "C","D","E"]
marks = [85, 90, 78, 100,98]
plt. bar(names, marks)
plt.title("Student Marks")
plt.show()
```



9:09 5

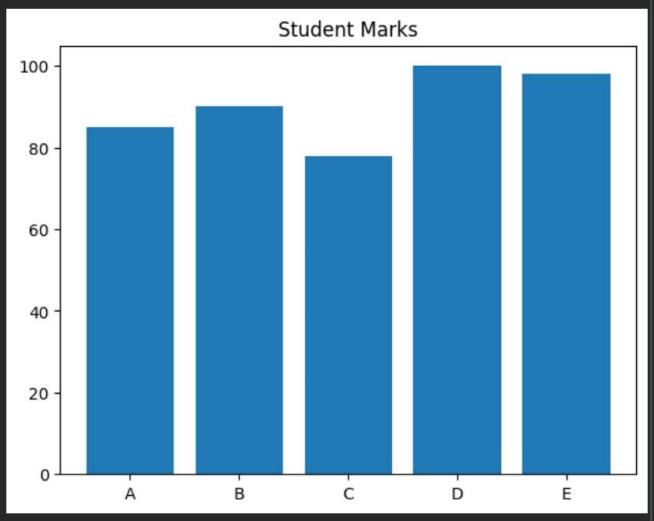
Untitled17.ipynb - Co...
olab.research.google.com

Untitled17.ipynb

Connect

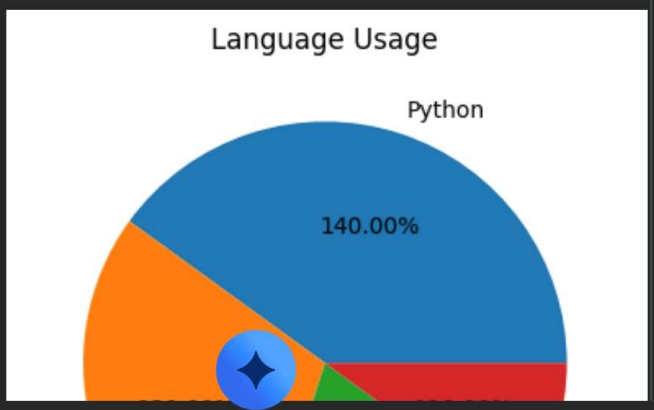
[ ]

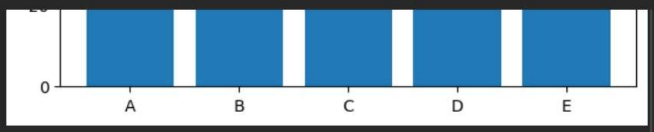
```
import matplotlib. pyplot as pit
names = ["A", "B", "C","D","E"]
marks = [85, 90, 78, 100,98]
plt. bar(names, marks)
plt.title("Student Marks")
plt.show()
```



[ ]

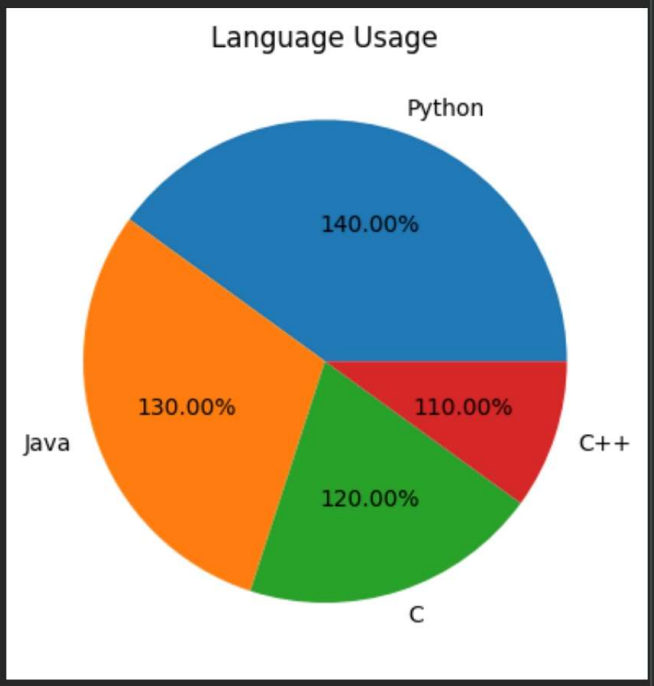
```
import matplotlib.pyplot as plt
sizes= [40, 30, 20, 10]
labels = ["Python", "Java", "C", "C+
plt.pie(sizes, labels=labels,autopct
plt.title("Language Usage")
plt.show()
```





[ ]

```
import matplotlib.pyplot as plt
sizes= [40, 30, 20, 10]
labels = ["Python", "Java", "C", "C+
plt.pie(sizes, labels=labels,autopct
plt.title("Language Usage")
plt.show()
```



9:10 5

jupyter.org/try-jupyter/no

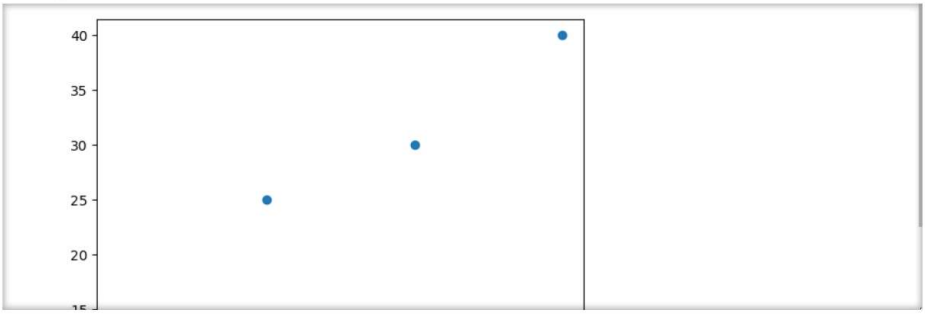
jupyterlite Intro Last Checkpoint: last month

File Edit View Run Kernel Settings Help Trusted

Code JupyterLab Python (Pyodide)

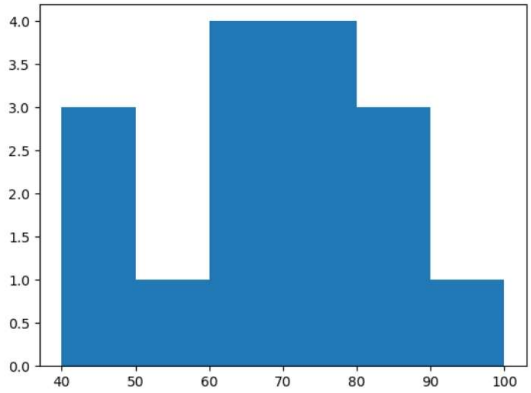
[ ]:

[1]:
```
import matplotlib.pyplot as plt
x=[1,2,3,4]
y=[10,25,30,40]
plt.scatter(x,y)
plt.show()
```

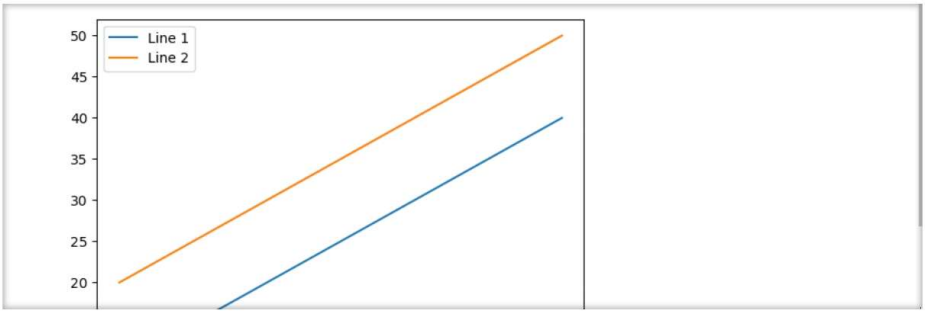


[ ]:

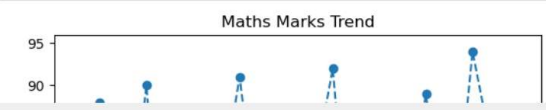
[6]:
```
import matplotlib.pyplot as plt
marks =[45, 50, 60, 65, 70, 75, 80, 85, 90, 46, 49, 60, 65, 78, 75, 80]
plt.hist(marks, bins =[40, 50, 60 ,70,80 ,90 ,100])
plt.show()
```

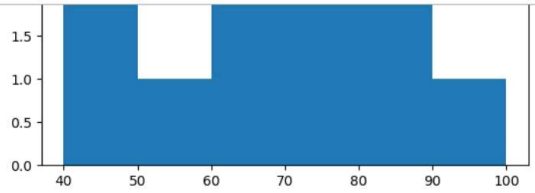


[5]:
```
import matplotlib.pyplot as plt
x=[1, 2, 3, 4]
y=[10, 20, 30, 40]
z =[20,30,40,50]
plt.plot(x, y, label="Line 1")
plt.plot(x, z, label="Line 2")
plt.legend()
plt.show()
```

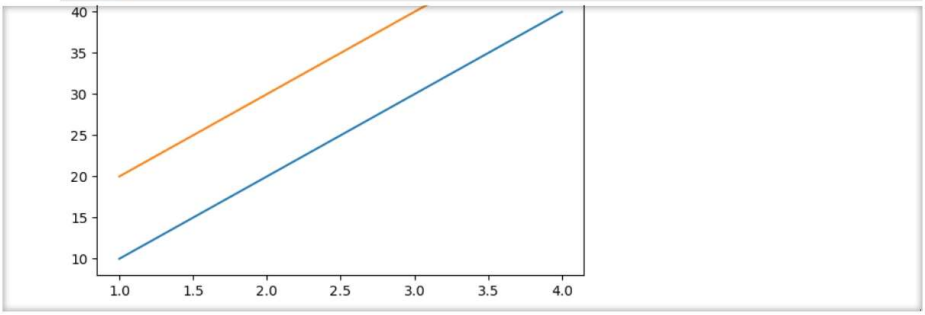


[14]:
```
import matplotlib.pyplot as plt
import pandas as pd
df = pd.read_csv("students_data.csv")
plt.plot(df["Student_ID"], df["Maths"], marker='o', linestyle='--')
plt.xlabel("Student ID")
plt.ylabel("Maths Marks")
plt.title("Maths Marks Trend")
plt.show()
```

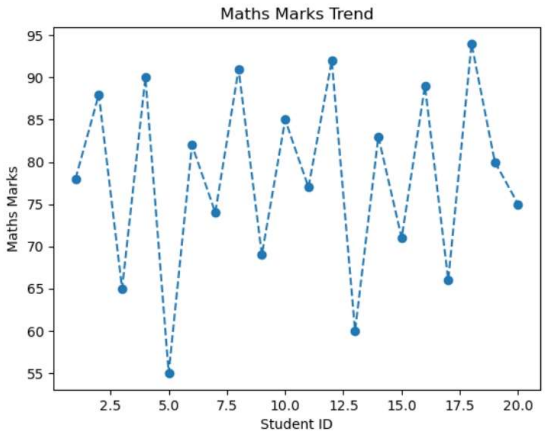




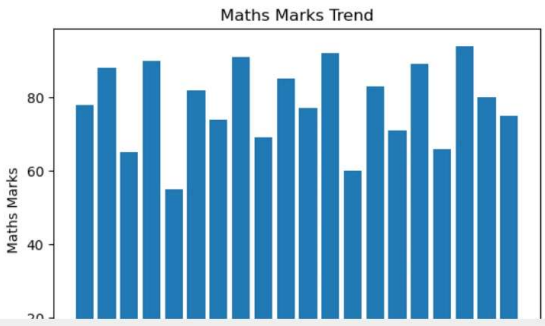
[5]:
```
import matplotlib.pyplot as plt
x=[1, 2, 3, 4]
y=[10, 20, 30, 40]
z =[20,30,40,50]
plt.plot(x, y, label="Line 1")
plt.plot(x, z, label="Line 2")
plt.legend()
plt.show()
```

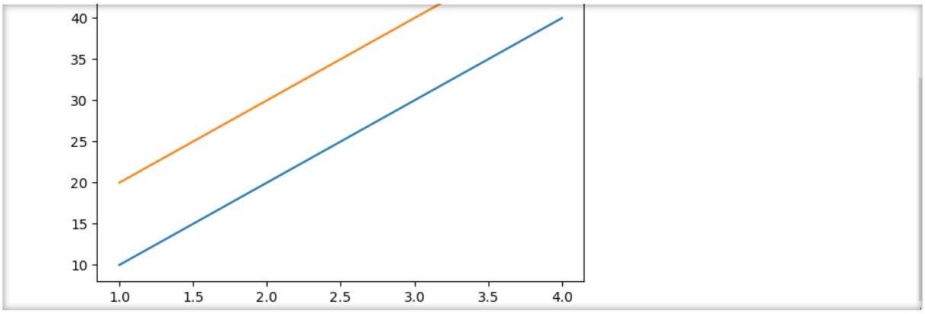


[14]:
```
import matplotlib.pyplot as plt
import pandas as pd
df = pd.read_csv("students_data.csv")
plt.plot(df["Student_ID"], df["Maths"], marker='o', linestyle='--')
plt.xlabel("Student ID")
plt.ylabel("Maths Marks")
plt.title("Maths Marks Trend")
plt.show()
```

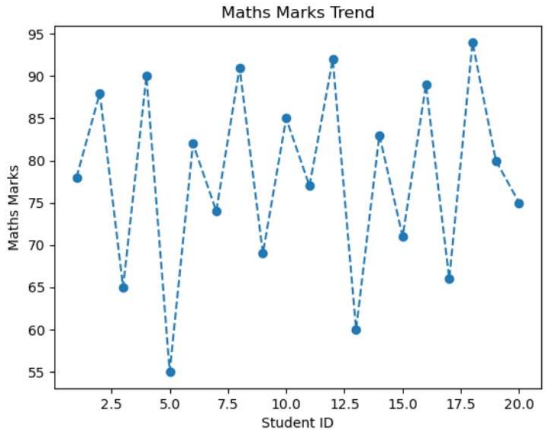


[16]:
```
import matplotlib.pyplot as plt
import pandas as pd
df = pd.read_csv("students_data.csv")
plt.bar(df["Student_ID"], df["Maths"])
plt.xlabel("Student ID")
plt.ylabel("Maths Marks")
plt.title("Maths Marks Trend")
plt.show()
```

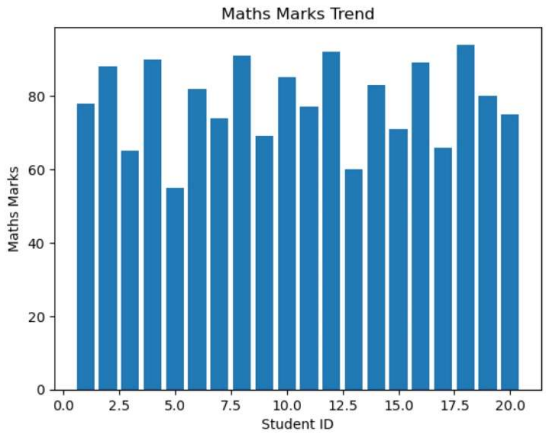




[14]:
```
import matplotlib.pyplot as plt
import pandas as pd
df = pd.read_csv("students_data.csv")
plt.plot(df["Student_ID"], df["Maths"], marker='o', linestyle='--')
plt.xlabel("Student ID")
plt.ylabel("Maths Marks")
plt.title("Maths Marks Trend")
plt.show()
```



[16]:
```
import matplotlib.pyplot as plt
import pandas as pd
df = pd.read_csv("students_data.csv")
plt.bar(df["Student_ID"], df["Maths"])
plt.xlabel("Student ID")
plt.ylabel("Maths Marks")
plt.title("Maths Marks Trend")
plt.show()
```



[ ]: