```python
#functions and inputs
#function create - call as many time u wanted
def greet():
  print("Hello,welcome to python")
greet()

def greeting(name):
  print("Hello",name)

greeting("sowmya")
greeting("johndoe")
```

```
→    Hello,welcome to python
     Hello sowmya
     Hello johndoe
```

```python
def check_age(age):
  if age >= 18:
    return "your adult"
  else:
    return "your not adult"

result = check_age(20)
print(result)
```

```
→    your adult
```

```python
name = input("enter your name")
print("hello",name)
age = int(input("enter your age"))
print("your age is",age)
height = float(input("enter your height"))
print("your height is",height)
```

```
→    enter your namesow
     hello sow
     enter your age56
     your age is 56
     enter your height78
     your height is 78.0
```

```python
def calculate_grade(marks):
  if marks >= 90:
    return "A"
  elif marks >= 80:
    return "B"
  elif marks >= 70:
    return "C"
  elif marks >= 60:
    return "D"
  else:
    return "F"

print("Student Grade Calculator")
name = input("enter your name")
print("hello",name)
marks = int(input("enter your marks"))
grade = calculate_grade(marks)
print(f"\n{name},your grade is {marks}")
print("your grade is",grade)
```

```
→    Student Grade Calculator
     enter your namesowmya
     hello sowmya
     enter your marks67

     sowmya,your grade is 67
     your grade is D
```

```python
#visusalisation
import matplotlib.pyplot as plt
```

```python
#data
x = [1,2,3,4,5,6,7,8,9]
y = [2,4,6,8,10,12,14,15,18]

#plot
plt.plot(x,y,marker='o')
plt.title("simple line plot")
plt.xlabel("x-axis")
plt.ylabel("y-axis")
plt.grid(True)
plt.show()

#bar
subjects = ["math","english","history","tamil","english"]
marks = [1,2,3,4,5]
plt.bar(subjects,marks)
plt.title("subject marks")
plt.xlabel("marks")
plt.ylabel("subjects")
plt.show()
plt.pie(marks,labels=subjects)
plt.show()
```

simple line plot

subject marks