1. Accept number from user

```
a=int(input("enter 1st no:"))

b=float(input("enter 2nd no:"))

print("entered 1st no is : ",a)

print("entered 2nd no is : ",b)
```

```
devil@devyani:~$ python3 acceptNOfromUSER.py
enter 1st no:4
enter 2nd no:5.666
entered 1st no is :  4
entered 2nd no is :  5.666
devil@devyani:~$
```

2. Display three strings "Name", "Is", "James" as "Name**Is**James"

```
x=input("enter first name : ")

y=input("enter second name : ")

z=input("enter third name : ")

print(x+"**"+y+"**"+z)

print(x,"**",y,"**",z)
```

```
devil@devyani:~$ python3 2displayJAMESstring.py
enter first name : Name
enter second name : Is
enter third name : devyani
Name**Is**devyani
Name ** Is ** devyani
```

3. Convert Decimal number to Octal using print() output formatting

```
num = int(input("Enter a decimal number: "))

octal = oct(num)

print("Octal no :",octal)
```

```
devil@devyani:~$ python3 3decTOoctal.py
Enter a decimal number: 6
Octal no : 0o6
----------------
```

4. Display float number with 2 decimal places using print()

```
a=float(input("enter floating number : "))

print(format(a,".2f"))
```

```
devil@devyani:~$ python3 4.py
enter floating number : 4.5678
4.57
devil@devyani:~$ python3 4.py
enter floating number : 4
4.00
```

5. Demonstrate basic datatypes

```
a=int(input("enter integer : "))

print(f"a = {a} is of type : ",type(a))

print(f"a = {a} in float : ",float(a))

print(f"a = {a} in complex : ",complex(a))
```

```python
print("------------------------------")

b=float(input("enter float : "))

print(f"b = {b} is of type : ",type(b))

print(f"b = {b} in int : ",int(b))

print(f"b = {b} in complex : ",complex(b))

print("------------------------------")

c=complex(input("enter complex : "))

print(f"c = {c} is of type : ",type(a))

print(f"c = {c} in int : ",int(c))

print(f"c = {c} in float : ",float(c))
```

```
devil@devyani:~$ python3 5basicDATATYPES.py
enter integer : 4
a = 4 is of type :  <class 'int'>
a = 4 in float :  4.0
a = 4 in complex :  (4+0j)
--------------------------------
enter float : 2.2321
b = 2.2321 is of type :  <class 'float'>
b = 2.2321 in int :  2
b = 2.2321 in complex :  (2.2321+0j)
--------------------------------
enter complex : 5j
c = 5j is of type :  <class 'int'>
Traceback (most recent call last):
  File "/home/devil/5basicDATATYPES.py", line 13, in <module>
    print(f"c = {c} in int : ",int(c))
                               ^^^^^^
TypeError: int() argument must be a string, a bytes-like object or a real number
complex'
```

6. Implicit type conversion

```python
integer_number = 123

float_number = 1.23

new_number = integer_number + float_number

# display new value and resulting data type

print("Value:",new_number)

print("Data Type:",type(new_number))
```

```
devil@devyani:~$ python3 6implicitTYPEconversion.py
Value: 124.23
Data Type: <class 'float'>
```

7. Create a variable inside a function with the same name as the global   variable

```python
a = int(input("enter a global variable : "))

def fun():

    a = int(input("enter a local variable : "))

    print("local var :",a)

print("Hello Python !!!")

fun()

print("Global var :",a)
```

```
devil@devyani:~$ python3 7function.py
enter a global variable : 4
Hello Python !!!
enter a local variable : 2
local var : 2
Global var : 4
```

8. Swap two numbers

a=int(input("enter first no : "))

b=int(input("enter second no : "))

temp = a

a = b

b = temp

print("a =",a)

print("b =",b)

```
devil@devyani:~$ python3 8swap.py
enter first no : 4
enter second no : 3
a = 3
b = 4
```

9. Display current date and time

import datetime

current_date = datetime.datetime.now()

print(current_date)

```
devil@devyani:~$ python3 9datetime.py
2024-08-15 12:13:36.507366
```

10. Calculate the Area of a Circle and Triangle

r = int(input("enter radius : "))

b = int(input("enter base : "))

h = int(input("enter height : "))

print("Area of Circle :",3.14*r*r)

print("Area of Triangle :",0.5*b*h)

```
devil@devyani:~$ python3 10areaOFcircleTRIANGLE.py
enter radius : 2
enter base : 3
enter height : 5
Area of Circle : 12.56
Area of Triangle : 7.5
```