

ASSIGNMENT -1

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Python code

1)Variables :

```
print("hello world")

name="Jaisri"

print(name) # Jaisri

print("Hello "+name) # Hello Jaisri

name="kiruba"

print("Hello "+name) # Hello kiruba

a = 10
b = 20
c=30.5
print(a+b)
```

```

#print(name+b) - Type-Error
#typecast to remove the above error

print(name + str(b)) #kiruba+20 = kiruba20

print(type(a))
print(type(b))
print(type(c))
print(type(name))

print(type(a+b))
print(a+b)
print(float(a))

```

Output:

```

PS C:\Users\my pc\Documents> &
python\adapter/../../debugpy\launc
hello world
Jaisri
Hello Jaisri
Hello kiruba
30
kiruba20
<class 'int'>
<class 'int'>
<class 'float'>
<class 'str'>
<class 'int'>
30
10.0

```

2)Array:

```

#lists

```

```
names = ["Jaisri", "Kiruba", "pooja", "ponpriya", "sumeka"]
print(names)

print(names[1])

names[0] = "Jayashree"
print(names)

#tuples
names = ("Jaisri", "Kiruba", "pooja", "ponpriya", "sumeka")
print(names[0])
#names[0] = "Jeevitha" - Does not support

#set
names = {"Jaisri", "Kiruba", "pooja", "ponpriya", "sumeka"}
#print(names[0]) - not subscriptable

#Mapping data type-dictionaries

# key -> value
# name -> jaisri
# location -> bangalore
# education -> [10,12,B.E]

student1 = {
    "name": "Jaisri",
    "location": "Bangalore",
    "Education": [10, 12, "b.e"],
    "random_number_picked": 6
}

print(student1["location"])
```

```
student1["location"]="chennai"  
print(student1)
```

Output:

```
PS C:\Users\my pc\Documents> & 'C:\Users\my pc\AppData\Local\Programs\Python\Python39\python.exe'  
gpy\adapter/../../debugpy\launcher' '56463' '--' 'c:\Users\my pc\Documents\array.py'  
['Jaisri', 'Kiruba', 'pooja', 'ponpriya', 'sumeka']  
Kiruba  
['Jayashree', 'Kiruba', 'pooja', 'ponpriya', 'sumeka']  
Jaisri  
Bangalore  
{'name': 'Jaisri', 'location': 'chennai', 'Education': [10, 12, 'b.e'], 'random_number_picked': 6}  
PS C:\Users\my pc\Documents>
```

3) List:

```
random_number = [10,20,30,40,50,60,70]  
print(len(random_number))  
length_of_array=len(random_number)  
print(random_number[length_of_array-1])  
  
print(random_number[2:4])
```

Output:

```
PS C:\Users\my pc\Documents> & 'C:  
gpy\adapter/../../debugpy\launcher'  
7  
70  
[30, 40]  
PS C:\Users\my pc\Documents>
```

4)Data:

```
print("enter your name")  
name=input()
```

```
print("hello "+name+" glad you are here!")
```

Output:

```
PS C:\Users\my pc\Documents> & 'python' 'C:\Users\my pc\Documents\main.py'
./..\debugpy\launcher' '56605' 'C:\Users\my pc\Documents\main.py'
enter your name
Jaisri
hello Jaisri glad you are here!
PS C:\Users\my pc\Documents> █
```

5)Loops:

```
names = ["jaisri","kiruba","sumeka"]

for person in names:
    print("hello "+person)

for i in range(1,11):
    print(i)

a=[10,20,30,40,50]
b=[10,20,30,40,50]
print(a+b)

additive=[]
if len(a) == len(b):
    for x in range(len(a)):
        additive.append(a[x] + b[x])
    print(additive)

else:
    print("the arrays are of different length")
```

Output:

```
hello jaisri
hello kiruba
hello sumeka
1
2
3
4
5
6
7
8
9
10
[10, 20, 30, 40, 50, 10, 20, 30, 40, 50]
[20, 40, 60, 80, 100]
PS C:\Users\my pc\Documents>
```

6) Control statement:

```
print("enter a")
a=input()

print("enter b")
b=input()

#a=10
#b=20

if a>b:
    print("a is grater than b")
    print("by "+str(a-b))
elif b>a:
    print("b is greater than a")
```

```
else :  
    print("both are same")
```

Output:

```
PS C:\Users\my pc\Documents> & 'python' '-u' '-i' '-c' './..\debugpy\launcher' '56709' '-.  
enter a  
100  
enter b  
100  
both are same  
PS C:\Users\my pc\Documents> █
```

7)Function:

```
def addTwo(x,y):  
    return x+y  
  
def subtractTwo(x,y):  
    return x-y  
  
def divideTwo(x,y):  
    response = None  
    try:  
        response = x/y  
    except:  
        response="please check the numbers you've sent"  
    return response  
  
print(subtractTwo(4,5))  
print(addTwo(4,5))  
print(divideTwo(10,0))
```

```
print("completed execution")
```

Output:

```
PS C:\Users\my pc\Documents> & 'C:\U
./..\debugpy\launcher' '56770' '--' '
-1
9
please check the numbers you've sent
completed execution
PS C:\Users\my pc\Documents>
```