Internship Program – AkashTechnolabs

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Day-2-Report

(Work Summary)

INTERNSHIP at AkashTechnoLabs

- Today it was the second day of our Internship.
- First, akash sir start with how was previous day experience?
- Then, sir solved doubts of previous day task.
- Afterwards, devanshi mam started our topic basic of python.

Day-2: What we learnt?

- ✓ How to define single line comments (with #) and multiline comments (with """ """ or ''' ''').
- ✓ How to define variables ex: name: 'string', number: 100.
- ✓ How to define various datatypes like numbers, tuple, list, dictionary, Boolean, set etc.
- ✓ How to do type casting:
  - ➢ int() – for interger type casting
  - ➢ float() – for float type casting
- ✓ type() function is used to know class of variable or value.
- ✓ isinstace() function used to check if an object belongs to a particular class.

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Task – 1 (Basic): -

1) Comments:

```
#Single Line like this
'''
Multiline
Comments
like this
'''
"""
Multiline
Comments
also like this
"""
```

2) Variables:

```
#creating variables
print("-----creating variables-----")
x = 5
y = "Kamiyab"
print(x)
print(y)

#assign value to multiple variables
print("-----assign value to multiple variables-----")
x, y, z = "Kamiyab", "Husen", "Bhatt"
print(x)
print(y)
print(z)
```

Output:

```
-----creating variables-----
5
Kamiyab
-----assign value to multiple variables-----
Kamiyab
Husen
Bhatt
```

3) Various Datatypes:

```
# int datatype
print("-----Int Datatype-----")
num1 = 10   # decimal form
num2 = 0B111    # binary form (B or b can use)
num3 = 0O123    # octal form (O or o can use)
num4 = 0Xabc    # hexadecimal form (X or x can use)
print(f'decimal: {num1}')
print(f'binary: {num2}')
print(f'octal: {num3}')
print(f'hexadecimal: {num4}')

# float datatype
print("-----Float Datatype-----")
num5 = 1.234    # decimal form
num6 = 1.2e3    # exponential form (E or e can use)
print(f'decimal: {num5}')
print(f'exponential: {num6}')

# complex datatype
print("-----Complex Datatype-----")
num7 = 3+5.5j
print(f'number: {num7}')
print(f'real part: {num7.real}')
print(f'imaginary part: {num7.imag}')

# boolean datatype
print("-----Boolean Datatype-----")
bool1 = True     # True/False value
```

```
print(bool1)
print(True+False)    # True=1 & False=0

# string datatype
print("-----String Datatype-----")
str1 = "Python is Cool!!"
print(str1)
```

Output:

```
-----Int Datatype-----
decimal: 10
binary: 7
octal: 83
hexadecimal: 2748
-----Float Datatype-----
decimal: 1.234
exponential: 1200.0
-----Complex Datatype-----
number: (3+5.5j)
real part: 3.0
imaginary part: 5.5
-----Boolean Datatype-----
True
1
-----String Datatype-----
Python is Cool!!
```

4) List Datatype:

```
# collection of different type of elements.
# list is mutable(it can be add/modify/remove) and
duplicate elements are supported.
languages=['Python',
'Java','C','C++','HTML','CSS','C','JavaScript','.NET',10,10
,30]
number=[90,25,5,80,40]

print(f'languages:{languages}\n')

print("----------Accessing Elements----------")
print(f'{languages[1]}')
print(f'{languages[-3]}')
```

```
for item in languages:
    print(f'item:{item}')
print("\n")

print("----------Slicing Elements----------")
print(f'{languages[1:5]}')
print(f'{languages[1:]}')
print(f'{languages[:6]}')
print(f'{languages[:]}')
print(f'{languages[::-2]}')
```

Output:

```
languages:['Python', 'Java', 'C', 'C++', 'HTML', 'CSS', 'C', 'JavaScript', '.NET', 10, 10, 30]

----------Accessing Elements----------
Java
10
item:Python
item:Java
item:C
item:C++
item:HTML
item:CSS
item:C
item:JavaScript
item:.NET
item:10
item:10
item:30
```

```
----------Slicing Elements----------
['Java', 'C', 'C++', 'HTML']
['Java', 'C', 'C++', 'HTML', 'CSS', 'C', 'JavaScript', '.NET', 10, 10, 30]
['Python', 'Java', 'C', 'C++', 'HTML', 'CSS']
['Python', 'Java', 'C', 'C++', 'HTML', 'CSS', 'C', 'JavaScript', '.NET', 10, 10, 30]
[30, 10, 'JavaScript', 'CSS', 'C++', 'Java']
```

5) Tuple Datatype:

```
#collection of different elements.
#tuple is unmutable(it cannot be add/modify/remove) and
duplicate elements are supported.
animals =
```

```
('tiger','lion','panther','leopard','tiger','elephant',10,2
0,30,10)

print(f'animals:{animals}\n')

print("----------Accessing Elements----------")
print(animals[4])
print(animals[-2])
for animal in animals:
    print(f'animal[{animal}]')
print("\n")

print("----------Slicing Elements----------")
print(animals[1:5])
print(animals[:6])
print(animals[2:])
print(animals[:])
print(animals[-3:])
print("\n")
```

Output:

```
animals:('tiger', 'lion', 'panther', 'leopard', 'tiger', 'elephant', 10, 20, 30, 10)

----------Accessing Elements----------
tiger
30
animal[tiger]
animal[lion]
animal[panther]
animal[leopard]
animal[tiger]
animal[elephant]
animal[10]
animal[20]
animal[30]
animal[10]
```

```
----------Slicing Elements----------
('lion', 'panther', 'leopard', 'tiger')
('tiger', 'lion', 'panther', 'leopard', 'tiger', 'elephant')
('panther', 'leopard', 'tiger', 'elephant', 10, 20, 30, 10)
('tiger', 'lion', 'panther', 'leopard', 'tiger', 'elephant', 10, 20, 30, 10)
(20, 30, 10)
```

6) Set Datatype:

```
#collection of different elements.
#set is mutable(it can be add/remove) and duplicate
elements are not supported.
numset = {10,20,45,60,10,50,'tiger'}
print(numset)
numset.remove(50)
print(numset)
numset.pop()
print(numset)
num1=numset.copy()
print(num1)
numset.add(65)
print(numset)
print(numset.difference(num1))
num2={'hii','byee'}
numset.update(num2)
print(numset)
```

Output:

```
{'tiger', 10, 45, 50, 20, 60}
{'tiger', 10, 45, 20, 60}
{10, 45, 20, 60}
{10, 20, 45, 60}
{65, 10, 45, 20, 60}
{65}
{65, 'hii', 10, 'byee', 45, 20, 60}
```

7) Dictionary Datatype:

```
#dictionaries are mutable(it can be add/modify/remove) and duplicate values are not supported
import pandas as pd
colors = {
    1:"red",
    2:"blue",
    3:"black",
    4:"pink",
    5:"white"
}

print("-------------Accessing Elements-------------")
print(f'colors:{colors}')
print(f'item:{colors[2]}')
print(f'get:{colors.get(6)}')
print(f'keys:{colors.keys()}')
print(f'values:{colors.values()}')
```

Output:

```
------------Accessing Elements------------
colors:{1: 'red', 2: 'blue', 3: 'black', 4: 'pink', 5: 'white'}
item:blue
get:None
keys:dict_keys([1, 2, 3, 4, 5])
values:dict_values(['red', 'blue', 'black', 'pink', 'white'])
```

8) type():

```
num1 = 1000
num2 = 100.50
num3 = 3+5.5j
bool1 = True
str1 = 'kamiyab'
list1 = ["apple", "orange", 10, 20, 10]
tuple1 = (10, "apple", 20, 10)
set1 = {10, 20, 30, 'apple', 40, 20}
dict1 = {1: "apple", 2: "orange"}

print(type(num1))
print(type(num2))
print(type(num3))
print(type(bool1))
print(type(str1))
print(type(list1))
print(type(tuple1))
print(type(set1))
print(type(dict1))
```

Output:

```
<class 'int'>
<class 'float'>
<class 'complex'>
<class 'bool'>
<class 'str'>
<class 'list'>
<class 'tuple'>
<class 'set'>
<class 'dict'>
```

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Task – 2 (Advance): -

CRUD Operations using MySQL

GitHub Link:- https://github.com/kamiyab786/Internship-AkashTechnolabs/blob/main/Task2/Python_CRUD_Operation.py

1) Insert:

```
DB already exists
table already exists
choose option
1.insert data
2.read data
3.update data
4.delete data
enter your choice:1
-----We are inserting data-----
enter name:kamiyab
enter marks:98
insert into student(name,marks) values('kamiyab',98);
```

2) Read:

```
D:\PYTHON\kamiyab\venv\Scripts\python.exe D:/Python/kamiyab/Python_CRUD_Operation.py
DB already exists
table already exists
choose option
1.insert data
2.read data
3.update data
4.delete data
enter your choice:2
-----retrive data-----
id name marks
1 husen 100
2 kamiyab 98
```

3) Update:

```
D:\PYTHON\kamiyab\venv\Scripts\python.exe D:/Python/kamiyab/Python_CRUD_Operation.py
DB already exists
table already exists
choose option
1.insert data
2.read data
3.update data
4.delete data
enter your choice:3
-----Update Data------
enter student id to update 1
select option for update
1.update only name
2.update only marks
3.update both
enter update option:2
----update only marks---
enter new marks :95
```

4) Delete:

```
D:\PYTHON\kamiyab\venv\Scripts\python.exe D:/Python/kamiyab/Python_CRUD_Operation.py
DB already exists
table already exists
choose option
1.insert data
2.read data
3.update data
4.delete data
enter your choice:4
Enter ID to be Deleted 2
```

```
-----retrive data-----
id name marks
1 husen 95
```

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5) MySQL Database: