📈 Primitive Data Types questions

1. **Create a variable x and assign the value 10 to it. Print x**

```
x=10
print(x)
```

OUTPUT:

X=10

2. **Create two variables: a = 5 , b = 3.2 . Print their sum and check the type of each**.

OUTPUT:

```
7.2
<class 'int'>
<class 'float'>
```

3. **Store your name in a variable my_name and print it.**

```
my_name="sridevi"

print(my_name)
```

OUTPUT:

SriDevi

4. **Create a variable** is_student **and assign it the value** True. **Print the variable and its type.**

```
is_student=True

print(type(is_student))
```

OUTPUT:

<class 'bool'>

5. Convert the integer 100 **into a string and print the result with its type?**

a=100

b=str(a)

print(type(b))

OUTPUT:

100

<class 'str'>

6. Take a string "45" and convert it into an integer. Add 5 and print the result.

a="45"

b=5

print(int(45))

print(type(int(a)))

i=int(a)

sum=i+b

print(sum)

OUTPUT:

45

<class 'int'>

50

7. Create a variable temperature and assign a float value. Convert it to integer and print.

temperature = 7.5

```
converted_temp = int(temperature)

print(converted_temp)
```

OUTPUT:

7

8. Write a program to input your age and print a message like: "You are 25 years old."

```
age=int(input("enter  your  age ------"))

print("you are" ,age ,"years old")
```

OUTPUT:

```
enter your age ----- 25

you are 25 years old
```

9. Concatenate two strings: "Hello" **and** "Python" **and print the result.**

```
str1="Hello"

str2="python"

print(str1+str2)
```

OUTPUT:

Hellopython

10. Check and print the type of each: 23, "hello", 3.14, True

```
list=[23 , "hello" , 3.14 , True]

for item in list:

    print(f"{item} is a type of{type(item)}")
```

OUTPUT:

```
23 is a type of<class 'int'>

hello is a type of<class 'str'>
```

3.14 is a type of<class 'float'>

True is a type of<class 'bool'>

Non-Primitive Data Types

11. Create a list of 5 fruits and print the list.

```
list=["apple","banana","orange","mango","grapes"]

print(list)
```

OUTPUT:

['apple', 'banana', 'orange', 'mango', 'grapes']

12. Create a tuple of 3 numbers and print the second item.

```
a=(13,5,22)

print("second item is",a[1])
```

OUTPUT:

second item is 5.

13. Create a list of 5 numbers. Replace the third number with a new value and print the list.

```
a=[12,1,22,24,11]

a[1]=2

print(a)
```

OUTPUT:

[12, 1, 22, 24, 11]

14. Create a dictionary with keys: name, age, city. **Assign your own values and print the dictionary.**

```
data={
```

```
    "name":"sridevi",
    "age":21,
    "city":"poduru"
}
print(data)
```

OUTPUT:

{'name': 'sridevi', 'age': 21, 'city': 'poduru'}

15. From the above dictionary, print only the value of the city.

```
data={
    "name":"sridevi",
    "age":21,
    "city":"poduru"
}
print(data["city"])
```

OUTPUT:

Poduru

16. Add a new key "gender" to the existing dictionary and print it.

```
data={
    "name":"sridevi",
    "age":21,
    "city":"Poduru"
}
data["gender"]="Female"
print(data)
```

OUTPUT:

{'name': 'sridevi', 'age': 21, 'city': 'Poduru', 'gender': 'Female'}

17. **Create a list of numbers and print only the even numbers using a loop.**

```
list=[1,2,3,4,5,6,7,8,9]
for i in list:
    if i%2==0:
     print(i)
```

OUTPUT:

2

4

6

8

18. Convert a tuple (1, 2, 3) **to a list and add a new item to it.**

```
a=(1,2,3)
b=list(a)
b.append(4)
print(list(b))
```

OUTPUT:

[1, 2, 3, 4]

19. Create two sets: {1,2,3} **and** {3,4,5}. **Find and print their intersection.**

```
a={1,2,3}
b={3,4,5}
intersection=a&b
print(intersection)
```

OUTPUT:

{3}

20. Create a dictionary of 3 students and their marks. Print each student's name with their marks.

```
data=[
    {
        "stu_name": "sai",
        "stu_marks": 90,
        "stu_grade": "A+"
    },
    {
        "stu_name": "satya",
        "stu_marks": 91,
        "stu_grade": "A+"
    },
    {
        "stu_name": "sridevi",
        "stu_marks": 92,
        "stu_grade": "A+"
    }
]
for student in data:
    print(f"{student['stu_name']}  got  {student['stu_marks']}  marks")
```

OUTPUT:

Sai got 90 marks.

satya got 91 marks.

sridevi got 92 marks.