

## **1 .Why do we call Python as a general purpose and high-level programming language?**

Python is used as interpreted because while we write a program it translates into machine understanding format. It is easy to write /understand format for humans so it's called a high level programming language.

## **2. Why is Python called a dynamically typed language?**

Like other programing languages we don't need to declare the variable ,so its named as dynamically typed language

## **3.List some pros and cons of Python programming language?**

### **Pros**

Its is easy to write the code

Its is simple compare with other programing language

### **Cons**

Python is not strong in mobile computing

## **4.In what all domains can we use Python?**

Data science , web development , machine learning , Artificial intelligence

## **5.What are variable and how can we declare them?**

Integer (int\_var = 3) ,Float (float\_var = 2.0) , string (str\_var = abc)

## **6.How can we take an input from the user in Python?**

By using Input function for eg

```
Name = input("Enter your name")
```

```
Print ("Name is", Name)
```

## **7.What is the default datatype of the value that has been taken as an input using input() function?**

By default input function value will be in string

## 8. What is type casting?

Here we can convert the integer data type into float data type / float data type into integer data type based on the user ,

## 9. Can we take more than one input from the user using single input() function? If yes, how? If no, why?

Yes we can take more than one input from user Eg

```
Name = input("Enter your name")
Age = input("Enter your age")
Print ("Name is", Name)
Print ("Age is", Age)
```

## 10. What are keywords?

If , if elif ,else

## 11. Can we use keywords as a variable? Support your answer with reason.

we can't use the keyword as variable because it will overwrite the functionality

## 12. What is indentation? What's the use of indentaion in Python?

Indentation refers to the space of code . It mainly used for block of statement eg if else

## 13. How can we throw some output in Python?

By using print function we can do it

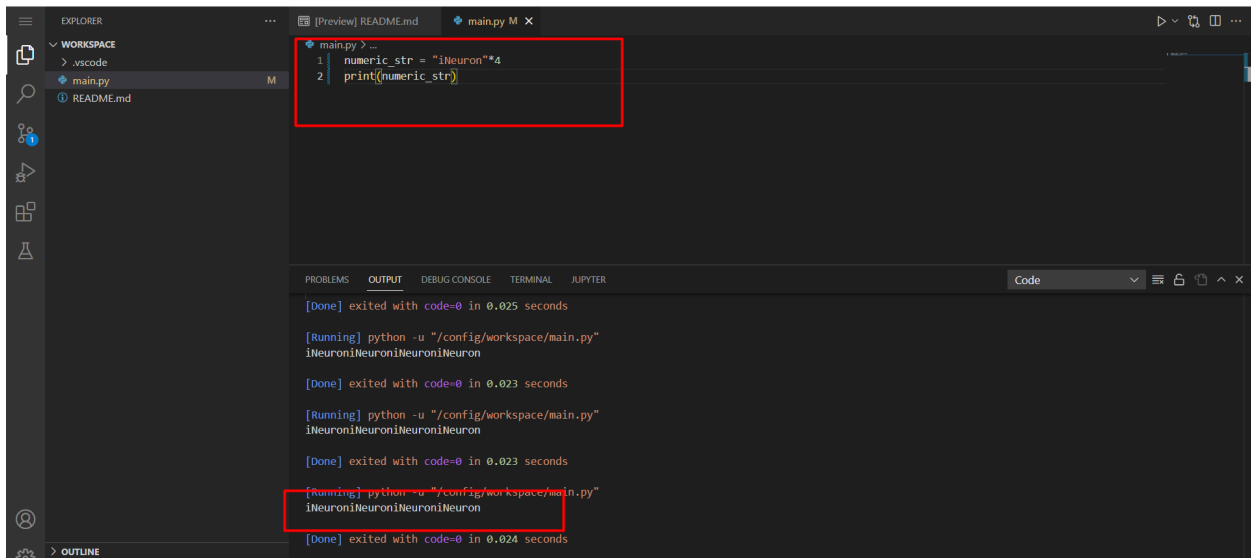
## 14. What are operators in Python?

Arithmetic operators, +,-,/,\*  
Assignment operators = , +=,-=, \*=,/=,/=, %=  
Comparison operarotrs == ,!=, < ,>,<=,>=

## 15. What is difference between / and // operators?

Float operators / it will display with decimal  
Integer operators // it will display without decimal

16. Write a code that gives following as an output.



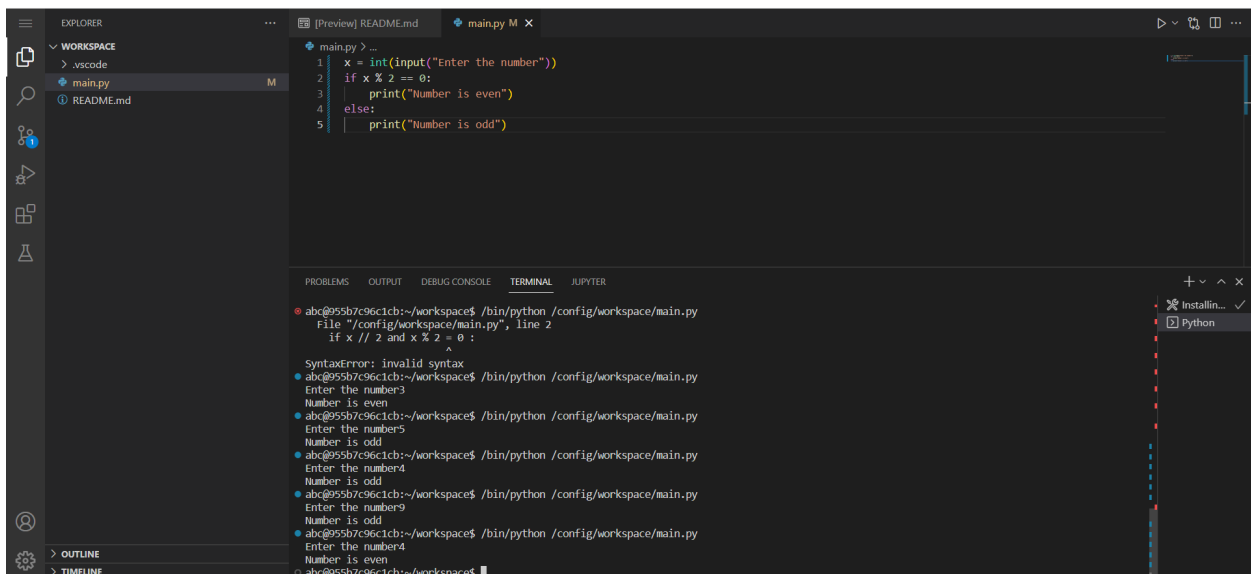
The screenshot shows a VS Code editor with a file named `main.py` containing the following code:

```
1 numeric_str = "iNeuron"*4
2 print(numeric_str)
```

The output terminal shows the execution of the code, resulting in the output:

```
[Done] exited with code=0 in 0.025 seconds
[Running] python -u "/config/workspace/main.py"
iNeuroniNeuronNeuronNeuron
[Done] exited with code=0 in 0.023 seconds
[Running] python -u "/config/workspace/main.py"
iNeuroniNeuronNeuronNeuron
[Done] exited with code=0 in 0.023 seconds
[Running] python -u "/config/workspace/main.py"
iNeuroniNeuronNeuronNeuron
[Done] exited with code=0 in 0.024 seconds
```

17. Write a code to take a number as an input from the user and check if the number is odd or even.



The screenshot shows a VS Code editor with a file named `main.py` containing the following code:

```
1 x = int(input("Enter the number"))
2 if x % 2 == 0:
3     print("Number is even")
4 else:
5     print("Number is odd")
```

The output terminal shows the execution of the code, resulting in the output:

```
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
File "/config/workspace/main.py", line 2
    if x // 2 and x % 2 = 0:
        ^
SyntaxError: invalid syntax
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
Enter the number3
Number is even
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
Enter the number5
Number is odd
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
Enter the number4
Number is odd
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
Enter the number9
Number is odd
abc@955b7c96c1cb:~/workspace$ /bin/python /config/workspace/main.py
Enter the number4
Number is even
abc@955b7c96c1cb:~/workspace$
```

18. What are boolean operator?

AND , OR ,NOT

**19.. What will the output of the following?**

**1 or 0 ---True**

**0 and 0----- false**

**True and False and True ---false**

**1 or 0 or 0 ----true**

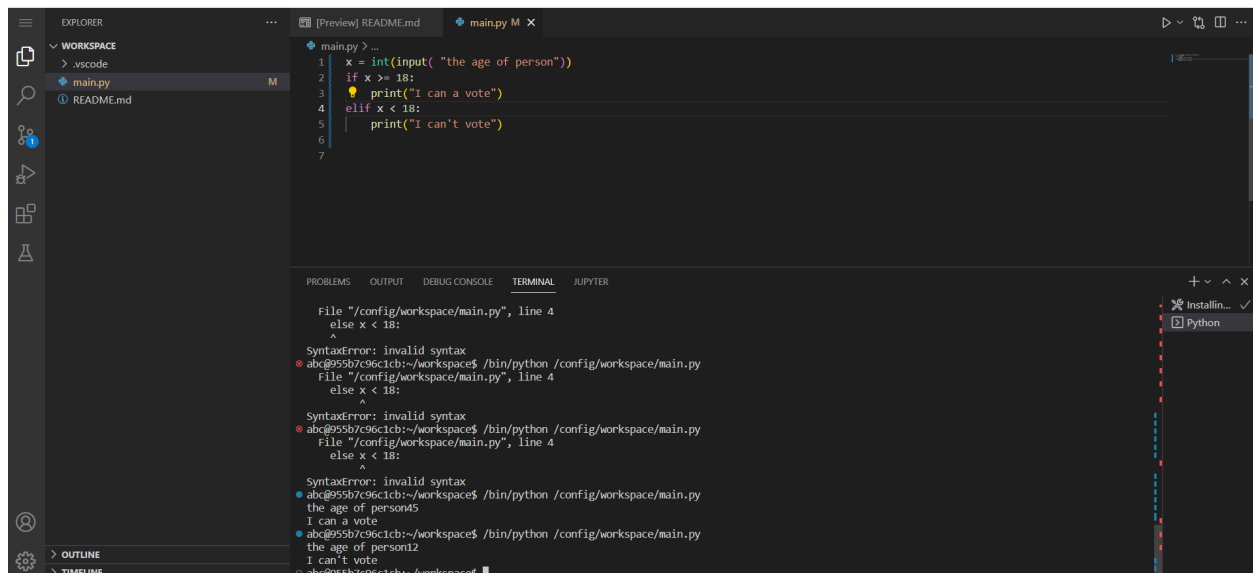
**20. What are conditional statements in Python?**

if, if-else, elif, nested if, and nested if-else

**21.What is use of 'if', 'elif' and 'else' keywords?**

It is used to check block of condition statement whether the condition is satisfied or not.

**22.Write a code to take the age of person as an input and if age >= 18 display "I can vote". If age is < 18 display "I can't vote".**



The screenshot shows a VS Code editor with a file named `main.py` open. The code in the editor is as follows:

```
1 x = int(input("the age of person"))
2 if x >= 18:
3     print("I can a vote")
4 elif x < 18:
5     print("I can't vote")
6
7
```

The terminal at the bottom shows the output of running the script. It displays three separate runs of the code, each with a syntax error message: `SyntaxError: invalid syntax`. The error messages are repeated three times, indicating that the code was run multiple times. The output of the script is also visible in the terminal, showing the prompt `the age of person` and the response `I can a vote`.

**23. Write a code that displays the sum of all the even numbers from the given list.**

...

**numbers = [12, 75, 150, 180, 145, 525, 50]**

The screenshot shows a VS Code editor with a file named `main.py` open. The code in the editor is as follows:

```
1 num_list = [12, 75, 150, 180, 145, 525, 50]
2 x1 = 0
3 for num in num_list:
4     if num % 2 == 0:
5         x1 = x1 + num
6 print("sum of even number",x1)
```

The terminal output shows the command `python /config/workspace/main.py` being executed, resulting in the output `sum of even number 392`.

24. Write a code to take 3 numbers as an input from the user and display the greatest no as output.

The screenshot shows a VS Code editor with a file named `main.py` open. The code in the editor is as follows:

```
1 x = int(input("Enter the number"))
2 y = int(input("Enter the number"))
3 z = int(input("Enter the number"))
4 if x>y:
5     print(x)
6 elif y>z:
7     print(y)
8 elif z>y:
9     print(z)
10
```

The terminal output shows the command `python /config/workspace/main.py` being executed. The user enters three numbers: 3, 6, and 4. The output is 6. The user then enters 7, 2, and 4, and the output is 7. Finally, the user enters 65, 105, and 225, and the output is 225.

25.. Write a program to display only those numbers from a list that satisfy the following conditions

- The number must be divisible by five
  - If the number is greater than 150, then skip it and move to the next number
  - If the number is greater than 500, then stop the loop
- ```
numbers = [12, 75, 150, 180, 145, 525, 50]
```

