

Date: 16/12/2025

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To-Do:

- Python Basics
  - Decision making- menu driven program
- 

## **Python Basics :**

**Features of Python =>**

- **Interpreted** → runs line by line
- **Dynamically typed** → no need to declare data types
- **Object-Oriented**
- **Portable** → works on Windows, Linux, Mac
- **Open source**

**Data Types =>**

- int - 10, 5
- float - 3.14, 54.2
- Str - "mahek"
- Bool - true/false
- List - [1,2,3] ordered, mutable
- Tuple - (0,9,8) ordered, immutable
- Set - {5,6,7} unordered, unique values
- Dict - {"number" : "4"} key- value pairs

**To check the type :**

```
X = 10
```

```
print(type(x))
```

**Input & Output =>**

```
name = input("Enter your name: ") #input is the keyword for taking user input
```

```
print("Hello", name)
```

**For multiple inputs at once use => .split()**

**Operators =>**

**1. Arithmetic operators**

**+ - \* / %**

**2. Comparison operators**

**== != > < >= <=**

**3. Logical operators**

**and or not**

**Type Conversion =>**

`int("10")` # basically yaha pe 10 was a str then converted for int

`float(5)`

`str(100)`

**Indentation =>**

Mandatory cause here there are no brackets

It defines code block

Usually 4 spaces

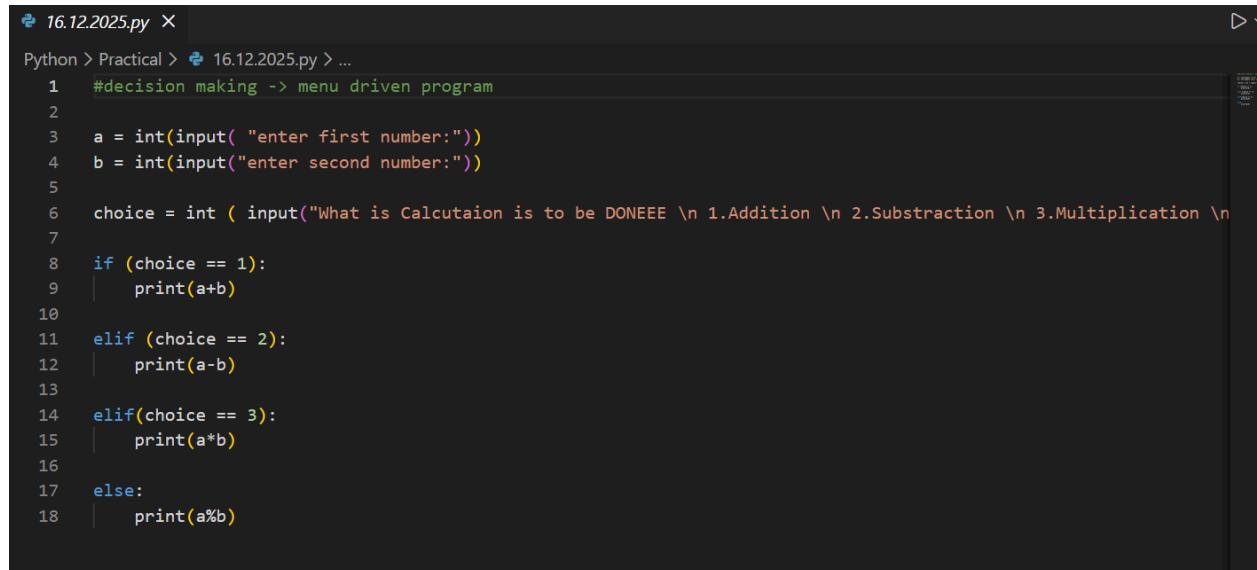
## **Decision Making :**

Decision making allows a program to choose different paths

Based on **conditions**

## Conditional Statements =>

1. **If**  
**Executes the block if the conditions is true**
2. **Elif**  
**Executes the else block if the if condition is false, basically any one block is executed**
3. **Else**  
**Executes the if all the above blocks conditions fail**



The screenshot shows a code editor window with a dark theme. The file is named '16.12.2025.py'. The code is a menu-driven program that performs addition, subtraction, multiplication, or modulus based on user input. The code uses an if-elif-else structure to handle different choices.

```
1 #decision making -> menu driven program
2
3 a = int(input("enter first number:"))
4 b = int(input("enter second number:"))
5
6 choice = int ( input("What is Calculation is to be DONEEE \n 1.Addition \n 2.Substraction \n 3.Multiplication \n"))
7
8 if (choice == 1):
9     print(a+b)
10
11 elif (choice == 2):
12     print(a-b)
13
14 elif(choice == 3):
15     print(a*b)
16
17 else:
18     print(a%b)
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

```
● (venv) PS C:\Users\mahek\GitHub\mituinternship> & C:/Users/ma
mituinternship/Python/Practical/16.12.2025.py
enter first number:1235
enter second number:54321
What is Calculation is to be DONEEE
1.Addition
2.Substraction
3.Multiplication
4.Division
4
1235
○ (venv) PS C:\Users\mahek\GitHub\mituinternship>
```

