

- Day-3
03/11/2025
- * write a program to calculate square of given number?
- Ans ① num = int(input("Enter your value")) # to give input value
print(num * num) # To print the square of the entered value.
- * ~~I/O o/p Function Methods of It :-~~
- ① General Printing :- ② FString M :- ③ FString M :-
- n = input("Enter your name") } # the variable for giving input i.e., (NAME & place)
P = input("Enter your place") }
- ① print("My Name is", n, "I am from", P) # To print the place & name by General Printing method.
- ② print("my name is {} , I am from {} , fstring({n, p})) # To print the place & name by the Fstring method where we can use fstring for printing.
- ③ print(F" My name is: {n} , I am from: {p}") # To print n, p B F string Method by giving direct values in braces. & using F letter in front of string.

* Data types :-

- A Data type in Python is classification that specifies the type of value a variable holds & defining what operations can be performed on the data.
- In simple terms, data type tells Python what kind of data is being stored in a variable.

- Single Value data type :-

* Built in Data types in Python

<u>Category</u>	<u>Datatype</u>	<u>Example</u>	<u>Description</u>
<u>Numberic</u> :-	int	$x = 10$	Stores whole Number
	float	$y = 10.5$	Stores Decimal Value
	Complex	$z = 3 + 5j$	Stores Complex numbers
<u>Text</u> :-	str	<code>name = "Sai"</code>	Stores text (Sequence of character)
<u>Boolean</u> :-	bool	<code>flag = True</code>	Represents True / False Values
<u>Sequence / Collection</u>	list	<code>marks = [45, 76, 95]</code>	Ordered, Changeable list of items
<u>Tuple</u>	tuple	<code>data = (5, 10, 15)</code>	Ordered, Unchangeable collection

<u>Category</u>	<u>Data-type</u>	<u>Example</u>	<u>Description</u>
	<code>Range</code>	<code>range(1, 10)</code>	Represents a sequence of numbers.
<u>Set</u>	<code>Set</code>	<code>{1, 2, 3}</code>	Unordered Collection of unique items.
	<code>FrozenSet</code>	<code>frozenset({1, 2, 3})</code>	Same as set But Immutable (unchangeable)
<u>Mapping</u>	<code>Dict</code>	<code>{'name': 'Ran', 'age': 20}</code>	Stores data in key-value pairs.
<u>Binary</u>	<code>bytes</code>	<code>b"hello"</code>	Stores byte data
	<code>bytearray</code>	<code>bytearray(5)</code>	Mutable Stores byte data
	<code>MemoryView</code>	<code>MemoryView(b'hello')</code>	Used to access memory of binary data.

To know type of Data we can use :-

- A = True # Variable that stores true

type(A) # To know the Data-type of the Variable.

* Write a Program to calculate Area of rectangle, triangle, circle?

$$A_{OR} = L \times B$$

$$A_{OT} = 0.5 \times B \times H$$

$$A_{OC} = 3.142 \times R \times R$$

$L = \text{float}(\text{input}("Enter a len of rec : "))$

$b = \text{float}(\text{input}("Enter breadth of rec : "))$

$\text{Base} = \text{float}(\text{input}("Enter Base of tri : "))$

$\text{Height} = \text{float}(\text{input}("Enter height of tri : "))$

$\text{Radius} = \text{float}(\text{input}("Enter Radius of circ : "))$

$$A_{OR} = L \times b$$

$$A_{OT} = 0.5 \times \text{Base} \times \text{Height}$$

$$A_{OC} = 3.142 \times \text{Radius} \times \text{Radius}$$

Point { A_{OR} } \ in the Area of rectangle = $\{A_{OT}\}$

\ in the Area of circle is $\{A_{OC}\}$

In area of Rectangle the Aor is defined that $L \times b$ the values are taken / input will be given from user

In same way for triangle & circle.