**INSTALL PYTON**

[Download Python | Python.org](https://www.python.org/downloads/)

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Click the Download button and install the exe.

**INTSTALL PYCHARM**

[PyCharm: The Python IDE for data science and web development by JetBrains](https://www.jetbrains.com/pycharm/)

Download the community Edition.

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**SETUP INTERPRETER**

This is the folder where the project is downloaded. So first time, you have to setup the pyton.exe folder to get the interpreter setup.

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**FIRST PROGRAM**

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To execute 🡪 Right Click and select Run <Project Name>.

**CREATING PROJECT USING ECLIPSE**

Open Eclipse and create a project from the below screenshot, if not available then go to Other…

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which will bring the below screenshot, there search for pydev and select PyDev Project.

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A screenshot of a computer screen

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Click Ok, which will do the following;

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Which will set the following when creating the main project

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So the new project pattern will be as below;

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Now select Finish… This will create the package.. There we can create a new file in the project (snap shot below)

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**Give the file name as <filename.py>**

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**Once created, write code in the window and to execute, follow the below snapshot;**

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**Output:**



**COMMENTS OR DOC STRINGS**

Single Line Comment : #

Multi Line Comment : “”” / ‘’’

**Egs:**

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**INDENTATION**

In C# for looping we use indentation using { }, where in Python, we will us : followed 4 spaces on the next line.



Basically, IDE’s will by default give 4 spaces once we give enter;

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**DATATYPES**

**Five Types**

None Type : an object that does not contain any value

Numeric Type : int, float, complex

Sequence :str, bytes, bytearray, list, tuple, range

Sets : which does not allow duplicates

Mappings : Map and reduce

**NUMERIC EXAMPLES**

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*"""*

*THIS IS THE EXAMPLE FOR NUMERIC DATA TYPE*

*"""*

a=50

b=20.50

c=-100

d=-100.75

print(type(a))

print(a)

print(type(b))

print(b)

print(type(c))

print(c)

print(type(d))

print(d)

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<class 'int'>

50

<class 'float'>

20.5

<class 'int'>

-100

<class 'float'>

-100.75

**Complex Type**

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#COMPLEX TYPE

comp=50+150j

print(comp)

print(type(comp))

print(comp.real)

print(comp.imag)

**Output:**

(50+150j)

<class 'complex'>

50.0

150.0

**Binary Type**

#BINARY

bv=0B1010

print(bv)

print(type(bv))

**Output**

10

<class 'int'>

**Hexadecimal Type**

#HEXADECIMAL

hx=0XFF

print(hx)

print(type(hx))

**Output**

255

<class 'int'>

**Octadecimal Type**

#OCTADECIMAL

od=0O24

print(od)

**Output**

20

<class 'int'>

**Boolean Type**

#BOOLEAN

bt=True

print(bt)

print(type(bt))

**Output**

True

<class 'bool'>

**Conversion Type**

#CONVERSION TYPES

a=50.75

b=int(a)

print(a)

print(type(a))

print(b)

print(type(b))

c=float(*"22.75"*)

print(c)

print(type(c))

print(bin(b))

print(type(bin(b)))

print(hex(10))

print(type(hex(10)))

print(oct(25))

print(type(oct(25)))

**Output**

50.75

<class 'float'>

50

<class 'int'>

22.75

<class 'float'>

0b110010

<class 'str'>

0xa

<class 'str'>

0o31

<class 'str'>

**IDENTIFIERS**

The name which we assign a value are called identifiers.

**Rules to follow:**

Can have any number of alphabets 🡪 userId

userId is different from userID

Can have underscore (user\_id) at the beginning or end

\_ or \_\_ in front of any methos of variables, which is private

\_\_function\_\_ 🡪 Special Function or Magic Functions

Cant have any special symbols (such as dollar etc)

Cant use the key words ( eg.. if/ while/ for)

Also can user any no of numbers at the end 🡪user10000 but 1000user declaration will throw an error.

**QUIZ**

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