

Python Basic Question .

Answers :

- 1) Python is a programming language that is easy to read and use.
It is popular because it's simple, powerful and works for many things like, data analyst, data science, apps. etc.
 - 2) An interpreter in Python is a program that runs and understand Python code line by line, and shows the result right away.
 - 3) "pre-defined keywords in Python are"
if, else, for, ~~while~~, return, def, class, import, True, False.
 - 4) "No", if we use pre-defined keywords it will show Error.
we can't use a variable name in Python.
- Example
- ```
if = 5 # X Error: 'if' is a keyword.
```
- 5) Mutability in Python means whether a value (object) can be changed/modif. after it is created.
  - 6) Lists mutable can be changed/modif. after it is created.  
But Tuples are immutable to keep data safe and fixed.  
It's store fixed data.
  - 7) == (Equality) It checks if two variables have the same value or not.  
is (Identity) It checks if two variables point to the same memory location.
  - 8) Logical operations like and, or, not are used in python to compare or combine two conditions.
  - 9) Changing one data type to another is known as Casting in Python.
  - 10) Implicit: python automatically understand and converts the data type.  
Explicit: python manually convert the data type using functions like int(), float(), str(), complex()
  - 11) "To make decision in our program" are been used as Conditional statements in Python.
  - 12) It checks another condition if the first if is False.

Both are used to repeat code, but both work's differently.

13) **for loop:** When we want/knows how many times

we want to ~~repeat~~ repeat the code.

Then for loop is used.

**while loop:**

If a condition is true, ~~or false~~ or if don't know exactly how many times.

Then while loop is used.

14) Example: Scenario User ~~to~~ system.

number = 0

while number <= 0

    number = int(input("Enter a greater number than 0:"))

    print("You entered:", number)

→ we don't know how many wrong inputs the user will give.

- The loop must continue ~~out~~ until the condition (number > 0) is true.

- A for loop would run only a fixed number of times, which is not useful here.