What is Python?
Python is a high level general purpose programming language

Programming->program->set of instructions used to perform a particular operation->+,-,/,*->calculator

High Level
types of languages
1.low level - code - complex - assembly 8086
2.mid level - easier than low level - c++
1. high level - Python -Python's syntax is as simple as like english

General Purpose
1.Applications - desktop apps , mobile apps, web apps
2.game development
3.Automation Testing
4.Ethical Hacking
1. Data Analysis
2. AI-Artificial Intelligence

History :
1991 - Guido van Rossum - Fav Circus Show- Monty;'s Python Flying Circus

Installation:
1. goto python.org

steps:
https://phoenixnap.com/kb/how-to-

Installation:

steps:
https://phoenixnap.com/kb/how-to-install-python-3-windows

Features:
1.high level
2.general purpose
3.dynamically typed programming
4.Open source - freely available
5.python has its own set of libraries/modules/package

data analysis
graph - matplotlib
game - pygame

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Variables (vary-changeable)& constants
Naming Conventions:
variable name must not be started/contains with/ number or any other special character other than _

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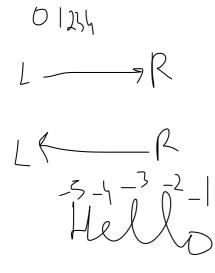**Data Types:**
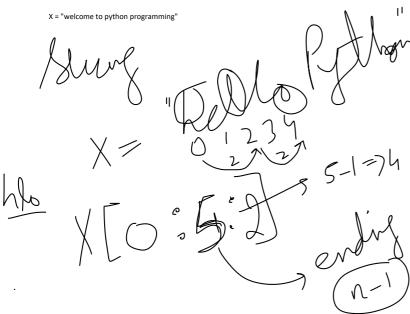number - int , float(decimal),complex number(a+bi)
String - "hey…."
Boolean - True/False
None - Blank

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String - String is Python's

immutable(cannot be changed) Data Type
Indexing
X = "Hello"

0 1 2 3 4

L ——————→ R

L ←—————— R

-5 -4 -3 -2 -1

Hello

X = "welcome to python programming"

String

"Hello Python"

X = "Hello Python"
0 1 2 3 4
  2   2

hlo

X[0:5:2] → 5-1=>4

ending
(n-1)

- X[starting:ending(n-1):stepsize]