1. what is variable, datatype and operators?

**Python variables are simply containers for storing data values.** Technically, the variable acts as an address for where the data is stored in memory. A Python variable may be assigned a value of one type and then later re-assigned a value of a different type. For example, **x = "apples"** can later be **x = 5**.

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| Data Types | Classes | Description |
| Numeric | int, float, complex | holds numeric values |
| String | str | holds sequence of characters |
| Sequence | list, tuple, range | holds collection of items |
| Mapping | dict | holds data in key-value pair form |
| Boolean | bool | holds either True or False |
| Set | set, frozenset | hold collection of unique items |

Operators are used to perform operations on variables and values.

types of operators?

Arithmetic Operators (+ - \* / % \*\* //)

## Assignment Operators( = += -=)

## Comparison Operators

## (== , != , <= ,>=)

## Logical Operators

## And , or , not(Reverse the result, returns False if the result is true)

what is syntax?

How program should be written

what is an expression and statement in programming?

what is a block in programming?

why do we use if-else and loops?

difference between while loop and for loop?

what is data structure?

types of data structure in python. with examples.

what is function? define a function that accepts some values and return something.