VARIABLES AND TYPES

Objectives:-

- Variables
- Dynamic type
- Type()
- Data types

Variables:-

- Variables are used to hold data during execution of the program.
- In C, C++, you need to declare variables. Only after declaration you can use them.

```
int a;

float b;
```

- C, C++ are statically typed languages

- Python is dynamically typed language.
- In python you don’t declare variables. If there is a need of a variable you think of a name and start using it as a variable

C/C++

- int a; →declaration
- a++;
- print(“%d” , a);
- a = 7;

Python

a = 5 →Automatic declaration

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a = 5

a = a + 5

Variable name:-

- Variable name is any combination of alphabet, digit and underscore.
- Variable name cannot start with digit.
- Variable names are case sensitive.
- Keywords cannot be used as variable names.

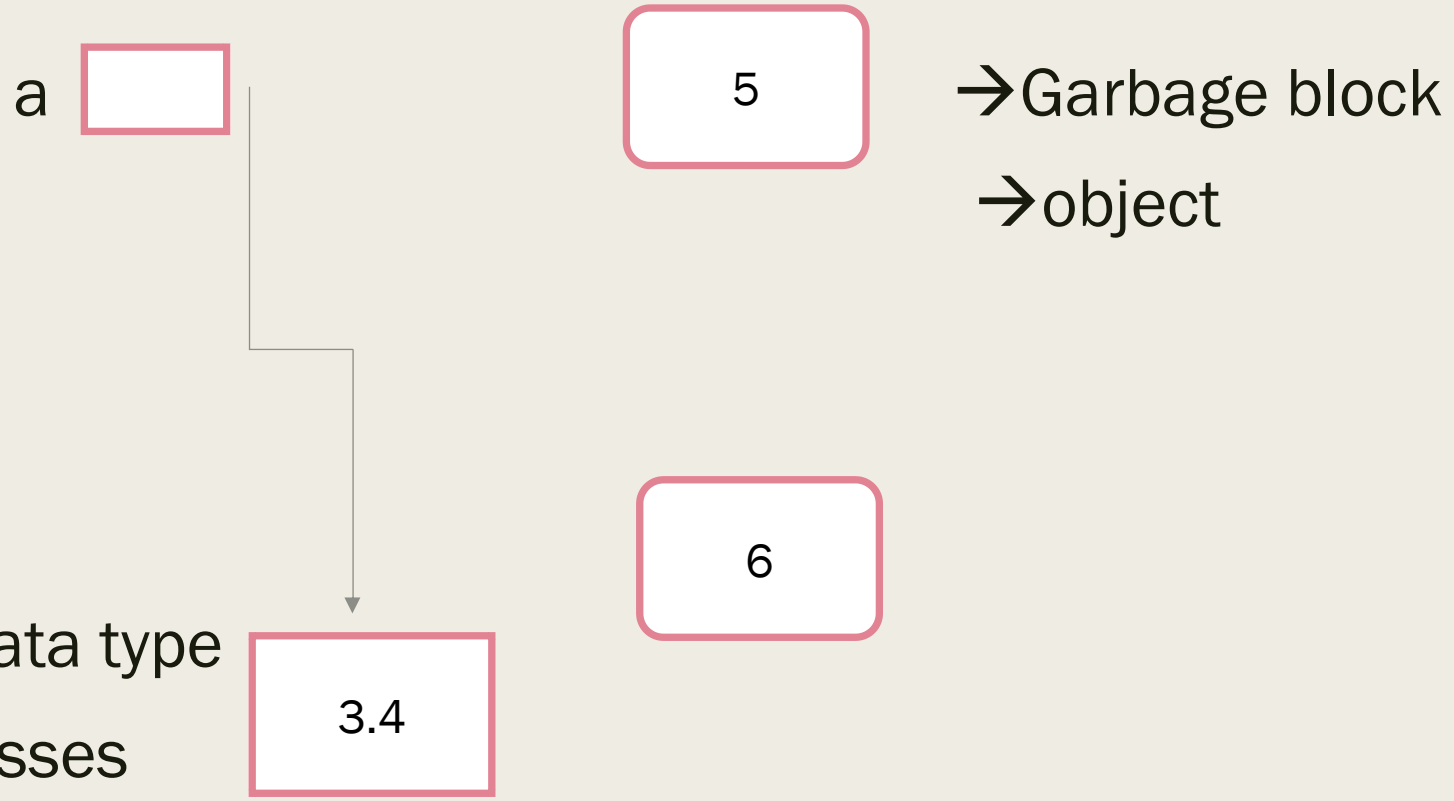
Deleting variable:-

- x = 5
- -------
- del x

Dynamic type:-

- Not only the value of a variable may change during program execution but the type as well.
- x = 5 # type of x is int
- x = 5.7 # type of x is float
- x = True # type of x is bool
- x = “country” # type of x is str

- a = 5
- a = 6
- a = 3.4



- int
- float
- bool
- str

→data type

Classes

-

67440 →id(address) reference

Type()

- type() is a predefined function which returns the data type of a specified variable
-

```
x = 5
type(x)
x = 5.7
type(x)
```

Data type is always a class in python

Data types:-

Numbers

int 5

float 3.7

complex 3+5j

Boolean

bool True

False

String

str “college” | “””college”””

‘college’ | ‘’’college’’’

Double in not there in python

Char in not there in python

THANK YOU!