Ch-2 VARIABLES AND DATATYPES

A variable is the name given to a memory location in a program.

a=30

b= ”Sam”

c=34.12

🡪variables: container to store a value.

🡪keywords: Reserved words in python

🡪identifiers: class/function/variables name

Data types:

Following datatype in python:

* Integers
* Floating point numbers
* Strings
* Booleans
* None

Python automatically identifies the type of data for us.

a=21 🡺identifies a as class <int>

b=45.4 🡺” “ “<float>

name=”harry” 🡺” as class <str>

Rules for defining a variable name

* A variable name can contain alphabets, digits and underscores.
* It cannot start with the digit.
* No white space is allowed to be used inside a variable name.

OPERATORS IN PYTHON

Arithmetic operators=> +,-,\*,/

Assignment operator: +=,-=

Comparison operator: == , != , >= ,<=

Logical operator: and , or, not

Type()function and typecasting

Type function is used to find the datatype of a given variable in python

A=31

Type(a)=>class<int>

B=”32’’

Type(b)=>class<str>

Type –casting is a way to convert one-datatype to another datatype

A number can be converted into a string and vice-versa(if possible)

We do have many way to convert datatype from one to another

Str(3)=>”3” 🡪integer to string conversion

Int(“45”)=>45🡪string to integer conversion

Float(46)=>46.0🡪integer to float conversion

Input()function

This function allows user to take input from the keyboard as a string

Code: a=input(“enter your address:”)

Note:the output of input()is always string (even if the number is entered)

////practice set

1. Program to add two numbers using python
2. P program to find remainder if the number is divided by 2
3. Check the type of variable assigned using input() function
4. Use comparison operator to find whether a given variable a is greater than b or not:take a=21 b=45
5. P program to find average of two numbers entered by user
6. To find square of a number entered by the user