# Slip test

Sep 28-2023

1. what is python:

A: Python is programming language to develop s/w applications.

→ Python is a framework.

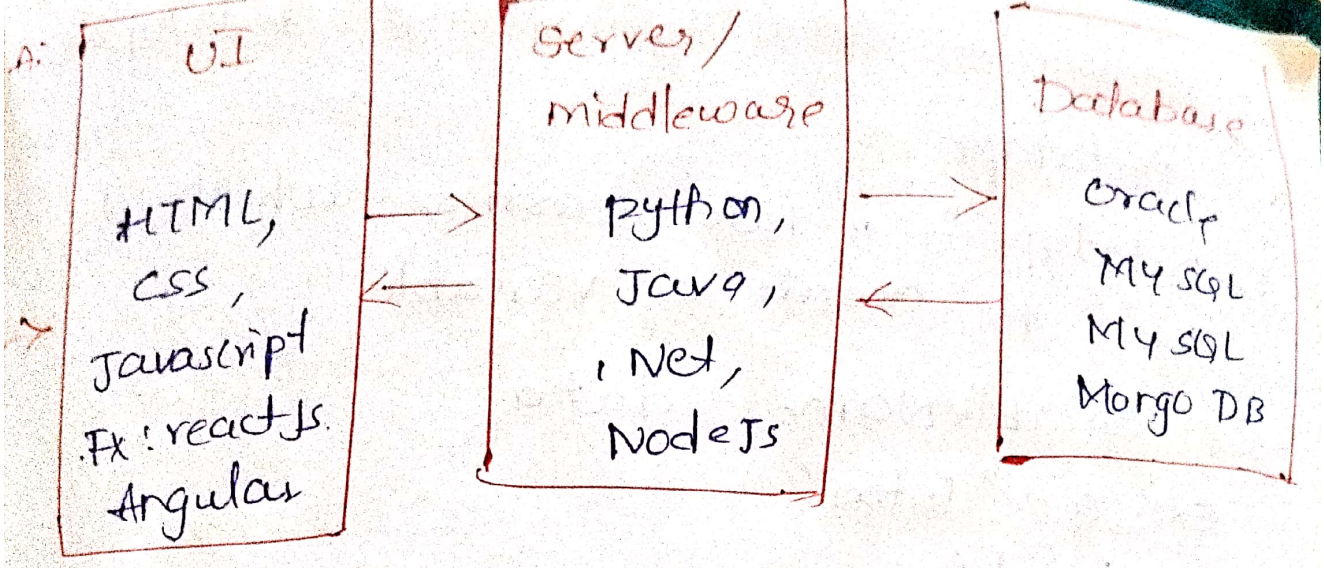
→ Python is a scripting language and it is high-level-language.

2. what is server?

A: Server will send request to the UI and send to the database and database respone to the UI.

→ Server is a mediator blw UI & Database

3. Explain about 3 Tier Architecture)




4. what is a database?

A: A database is a physical information storage.

→ It can stores the data.

ex: Oracle, MySQL, MSSQL, Mongo DB.

5. what is a UI?

A: Uses Interface is to present or display the data in the browses.

6. what are the UI technologies?

A: UI technologies are HTML, CSS, Javascript. on the top of UI technologies we can develop our own library.

7 What is Datatype?

A: Datatype is a data carrier used to create a variable.

Syn: Variablename = data

Ex: name = "Prathyusha"

Print(name)

Q: Differences blw variable & datatypes.

A: Datatype

1. Datatype is a data carries which is used to create a variable.

syn: variableName = data

ex: a = "lotus"
print(a)

Variable

variable is to store the data value.

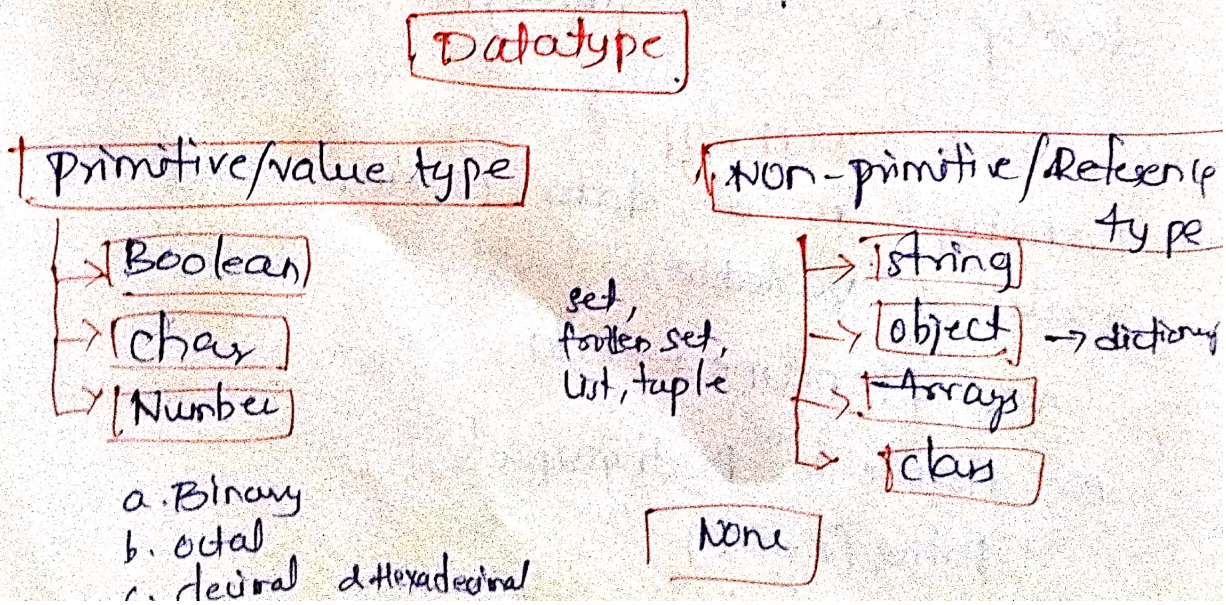
syn. variableName = data

a = 10
print(a)

Q. How many types of datatypes?

A: There are two types of datatypes.
They are:

1. primitive / value type
2. Non-primitive / Referenee type



10. Explain about Boolean datatype?

A: Boolean:

Boolean type is used to represented the Boolean value.

⇒ It represent in 3 ways.

1. Implicit: Based on assigned data, datatype to be defined.

syntax: VariableName = data

ex: bln = "True"
print(bln)

2. explicit: explicitly represent the datatype to the variable.

syntax: VariableName = datatype(data)

ex: bln = bool("True")
print(bln)

3. Datatype / Variable Annotation.

Declared the datatype.

syntax: VariableName : datatype = data

ex: bln : bool = "False"
print(bln)

11. How many ways to create a variable in Python?

A: These are 3 ways to create a Variable.

they are: 1. Implicit
2. explicit
3. Datatype / variable Annotation.

12. What are the types of number system

A: There are 4 types of number system they are:

1. Binary
2. octal
3. decimal
4. Hexadecimal

13. Explain about binary number system

A: Binary number system:

-> It represents 0's and 1's
-> Binary number system base is 2.
-> It represents in 3 ways:

1. Implicit: Based on assigned data, datatype to be defined.

syntax: variableName = data

ex: a = 0b100
print(a)

2. Explicit: Explicit representing the datatype to a variable.

Syntax: VariableName = datatype(data)

ex: a = bin(0b100)
print(a)

3. Datatype / variable Annotation:

Declared the datatype to the variable.

Syntax: VariableName : data = data

ex: a: bin = 0b100
print(a)

14. Explain about number system?

a: octal number system?

→ It represents 0 to 7.
→ octal number system base is 8
→ It represents in 3 ways:

1. Implicit: Based on assigned data, datatype to be defined.

syntax: VariableName = data

ex: a = 0067
print(a)

2. Explicit: Explicity representing the datatyp to an variable.

Syntax: VariableName = datatype(data)

ex: a = oct(0067)
print(a)

3. Datatype / variable Annotation: Declared the datatype to a variable

syntax: VariableName : datatype = date

Ex: a:oct = 0057
print(a)

15. Explain about headecimal numbes system?

15: Hexadecimal number system
-> It represents 0 to 9 and A to F
-> Hexadecimal number system base is 16
-> It represent in 3 ways.

1. Implicit: Based on assigned data, datatype to be defined.

Syntax: VariableName = data

ex: a = 0x32
print(a)

1. Explicit: explict representing the datatype to a variable

Syntax: VariableName = datatype(data)

Ex: a = hex(0x32)
print(a)

2. Datatype / variable Annotation:
Declared the datatype to a variable

Syntax: variableName: datatype = data

Ex: a: hex = 0x32
print(a)

16. What is decimal number system?

A: Decimal number system,

-> It represents 0 to 9 (total 10)
-> Decimal number system base is 10

Q: Type of decimal number system?

A: There are 4 type: They are:

1. Int
2. float
3. Exponential
4. Complex.

Q: Explain about int, float, number system?

A: Int: It represents non-precision value.

→ It represents in 3 ways.

i. Implicit: Based on assigned data, datatype to be defined

Syntax: variablename = data.

Ex: a = 10
print(a)

ii. Explicit: Explicitly represent the datatype to an variable.

Syntax: variablename = datatype(data)

Ex: a = int(10)
print(a)

iii. Datatype/variable Annotation:

Declared the datatype to an variable

Syntax: variableName: datatype = data

Ex: a: int = 10
print(a)

Float: It represent precision
→ It represent in 3 ways:

1. Implicit: Based on assigned data, datatype to be defined

Syntax: variableName = data

Ex: a = 10.10
print(a)

2. Explicit: explicitly represent the datatype to an variable.

Syntax: variableName = datatype(data)

Ex: a = float(10.10)
print(a)

3. Datatype / variable Annotation:
Declared the datatype to an variable.

Syntax: variableName : datatype = data

Ex: a : float = 10.10
print(a)

19. Explain about Exponential number system?

A = Exponential number system:
It represents long float numbers (or) short form of float numbers.

1. Implicit Based on assigned data, datatype to be defined.

Ex: num = 2e
print(num)

2. Explicit: explicitly represent the datatype to an variable.

Syntax: VariableName = datatype (data)

Ex: num = float (1.62234-6669)
print(num)

20. what is complex numbers system:

A: Complex numbers system:

→ It represent imaginary & real numbers.
→ to calculate the imaginary numbers.
→ Rep by a+bj. here is a is real part
b is ima part.

Rep in 3 ways:

1. Implicit: Based on assigned data, datatype to be defined

Syntax: variableName = data

Ex: a = 1+2j
b = 3+5j
print(a+b)

2. Explicit: explicitly represent the datatype to an variable.

Syntax: variableName = datatype (data)

Ex: a = complex(1)
print(a)

3. Datatype / variable Annotation:

Declared the datatype to an variable

Syntax: variableName: datatype = data

Ex: a: complex = 1
print(a)

21. what is a string?

A: string is a serie or collection of characters.

22. How many ways to represent a string

A: there are 3 ways:

1. single quotes
2. Double quotes

23. How many ways to represent string data?

A: There are two ways:

1. single / Inline " " / ' '
2. Multiline """ """ / ''' '''

Ex: Multiline

address = """
2-3-11,
B.N Reddy colony,
MBNR (D)
"""

24. How many ways to represent string datatype:

A: There are 3 ways:

1. Implicit
2. Explicit
3. Datatype / variable Annotation.

25. How to check string length?

A: By using len() function check the length of string.

ex: a = "prathyusha"
print(len(a))

26. what is concatenation and explain about concatenation tech?

A: By using joining and append the string.

1. Operator overloading
2. f'string / interpolation
3. string join method.

1. Operator overloading:

By using `+` operator we can append/join the string.

syntax: string1 + string2.

fname = "prathyusha"
lname = "kadumuri"

print(fName + " " + lName)

2. f'String / Interpolation:

joining / appending the string by using f/string / Interpolation.

Interpolated rep by {}

fName = "Navya"
lName = "kalakani"
print(f" {fName} {lName}")

2. f'string / interpolation:

→ joining / Interpolation appending the string by using f/string / interpolation.

Interpolated rep by {}

syntax: f" {string 1} {string 2}

Ex: fname = "prathyusha"
lName = "kadumuri"
printf f" {fName} {lName}"

3. string join method:

By using string join method we can perform the string concatenation.

syntax: joining char.join(tuple)

Ex: fname = "kadumuri"
lname = "Prathyusha"
Print(" ".join(fName lName)

27. What is Overloading?

A: It means different behaviours.

→ Operator behaves diff at diff behaviours

→ Operator perform addition blw the number & append blw the string.

28. string split methods?

A: there are 4 methods.

1. split
2. splitline
3. partition
4. Rpartition.

29. Differency blw partion & rpartition?

A:

partition

1. partition is a string function. It is used to partition the string by using character or string.

syn: variableName
partition (string/char)

ex: email = "a@prathy@gmail.com"
print(email.partition("@"))

Rpartition

1. rpartition is a string function. It is used to rpartition by string by using character/string.

Syn: Variablename.
rpartition (strng/char)

ex: email = "a@prathy@gmail.com"
print(email.rpartition("@"))

Q: Explain about string functions?

A: string functions:

1. lscapitalize: first char of word should be capital letter.

syntax: variable.lscapitalize()

ex: a = "prathy"
print(a.lscapitalize())

2. lstitle: each word of first char should be capital.

syntax: variable.lstitle()

ex: name = "prathy"
print(name.lstitle())

3. lsupper: each string/char should be upper case letters.

syntax: variable.lsupper()

ex: name = "pathyu"
print(name.lsupper())

4. lslower: each string/char should be lowercase letters.

syntax: variable.lslower()

ex: name = "prathy"
print(name.lslower())

5. lscasefold: It is same as lower, each char/string should be lowercase.

print(name.lscasefold())

6. lsswapcase: Each string is convert to uppercase to lowercase & uppercase.

Syntax: variable.lsswapcase()

Ex: name="pattyu"
print(name.lsswapcase())

1. Explain about string check functions!

: check what type of string.

ex: number, digit etc.

1. lsnumeric: To check the given string is numeric value or not

Syntax: variable.lsnumeric()

Ex: name = "567"
print(name.lsnumeric())

2. lsalnumeric: To check the given string is alphanumeric value or not.

Syntax: variable.lsalnumeric()

Ex: name = "cda563"
print(name.lsalnum())

3. lsdecimal: To check the given string is decimal value.

syntax: variable.lsdecimal()

Ex: name = "10.10"
print(name.isdecimal())

4. isdigit: To check the given string is digit value or not.
Syntax: variable.isdigit()
Ex: name = "ab16"
print(name.isdigit())

5. isascii: To check the given string is alphabets & number values or not
Syntax: variable.isascii()
Ex: name = "312"
print(name.isascii())

6. isupper: To check the given string is upper case letters, values or not
Syntax: variable.isupper()
Ex: name = "pathyu"
print(name.isupper())

7. islower: To check the given string is lower case letter values or not
Syntax: variable.islower()
Ex: name = "PRATHYU"
print(name.islower())

8. isidentifier: To check the given string is special characters, number values or not.

Syntax: variable.isidentifier()

Ex: name = "615"
print(name.isidentifier())

9. isspace: To check the given string is space values or not

Syntax: variable.isspace()

Ex: name = " "
print(name.isspace())

10. isprintable: To check the given string is printable value or not.

Syntax: variable.isprintable()

Ex: name = "613"
print(name.isprintable())

11. istitle: To check the given string is contain the letters should first char should be capital letter

Syntax: variable.istitle()

Ex: name = "prathy"
print(name.istitle())