20 May

**Python Basic - 1**

Q.1. What are keywords in python? Using the keyword library, print all the python keywords

=Keywords in Python are reserved words. You cannot use them as variable name, function name, class name, etc.Keywords in Python are reserved words. You cannot use them as variable name, function name, class name, etc. a set of predefined words, called Keywords which along with Identifiers will form meaningful sentences when used together.List in python are False,True,none,and,as,assert,async,await,break,class,continue,def,del,elif,else,except,finally,for,from,global,if,import,in,is,lambda,nonlocal,not,or,pass,raise,return,try,while,with,yield.

Q.2. What are the rules to create variables in python?

* A variable name must start with a letter or the underscore character
* A variable name cannot start with a number
* A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )
* Variable names are case-sensitive (age, Age and AGE are three different variables)
* Variable Names cannot be started with any python keywords.

Q.3. What are the standards and conventions followed for the nomenclature of variables in python to improve code readability and maintainability?

= A variable can consist of upper- and lowercase letters, the digits 0-9 and the underscore character.

* The first character of a variable cannot be a digit.
* Keywords like if or the Boolean True are reserved and cannot be used as variable names.
* Variables are case-sensitive; therefore x is different from X.
* Python, variable names typically follow the Camel Case convention. In Camel Case, variable names start with a lowercase letter, and subsequent words are capital.

Q.4. What will happen if a keyword is used as a variable name?

= Keywords refer to the reserved words in Python. In other words, anyone cannot use it as a variable or identifier. Thus, we use them for defining the syntax and the structure of Python. They are case sensitive. If we going to use it as keywords it gives us syntax error.

Q.5. For what purpose def keyword is used?

= def () keyword in python is used to define the function that users can use to built their own function. All the code that you put between the def function\_name(parameters) and end will be executed every time you call the function\_name later.

Q.6. What is the operation of this special character ‘\’?

= separate location in a file or network path.

Q.7. Give an example of the following conditions:

(i) Homogeneous list

(ii) Heterogeneous set

(iii) Homogeneous tuple

= Eg; 1. Homogeneous list= Fruits list

my\_list=[‘Apple’, ‘Banana’, ‘Mangoes,]

Eg; 2.Heterogeneous list= [‘John’, 10, ‘Apples’]

Eg; 3. Homogeneous tuples= {1,2,3,4,5}

Q.8. Explain the mutable and immutable data types with proper explanation & examples

= 1. Mutable data types= List in pythons are mutable data types.

It is ordered collection of an items.

It is mutable i.e. It can be changed modify or edit after creation of it.

Its always placed in square braces[].

My\_list=[“Apples”, “Banana”, “Mangoes”, “Grapes” ]

Print(My\_list)

=[“Apples”, “Banana”, “Mangoes”, “Grapes” ]

(My\_list).append(“Oranges”)

print(My\_list)

=[“Apples”, “Banana”, “Mangoes”, “Grapes”, “Oranges” ]

In this way we can add item.

We can delete or remove and insert the new items by (pop), (del), (insert) by using

this functions that’s why its called mutable.

2.Immutable data type= Tuples; it is immutable data types in python.

Tuples are it is also ordered collection of items, which is immutable i.e it cannot

be changed , modified or edited after creation.

Created by placing in parentheses().

My\_tuples=(1,2,3,4,5)

We cannot change in it.

Q.9. Write a code to create the given structure using only for loop.

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rows = 5

for i in range(0, rows):

for j in range(0, i + 2):

print("\*", end=' ')

print(" ")

for i in range(rows 1, 3, 5, 7, 9):

for j in range(0, i +2 ):

print("\*", end=' ')

print(" ")

Q.10. Write a code to create the given structure using while loop.

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= line= 1,3,5,7,9.

While <=9:

print(lines)