20 May

Python Basic - 1

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

Keywords in Python are reserved words that have special meanings and cannot be used as identifiers (variable names, function names, etc.) in the code.

Code

Import keyword

print(keyword.kwlist)

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

* Variable names in Python can contain letters (a-z, A-Z), digits (0-9), and underscores (\_). They must start with a letter or an underscore. Python is case-sensitive, so myVariable and myvariable are considered different variables.
* You cannot use reserved keywords as variable names
* Variable names cannot contain spaces or special characters like !, @, $, %, etc

Q.3. What are the standards and conventions followed for the nomenclature of variables in

python to improve code readability and maintainability?

* Use descriptive and meaningful names
* Use lowercase letters and underscores - example, use first\_name instead of FirstName or firstname.
* Avoid using reserved keywords
* Use plural names for collections

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

SyntaxError: invalid syntax

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

The def keyword in Python is used to define a function

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

In Python, the backslash character (\) is used as an escape character. It is used to include special characters or sequences within strings and to represent certain characters that have special meanings.

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

(i) Homogeneous list -a list where all elements have the same data type

list=[1,2,3,4]

(ii) Heterogeneous set - mixed\_set = {1, 'apple', 3.14, True}

(iii) Homogeneous tuple =(1,2,3,4)

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

Immutable Data Types:

Immutable data types are those whose values cannot be modified after they are created

Ex - String,int,float,tubles,frozenset

Mutable Data Types:

Mutable data types, as the name suggests, are those whose values can be modified after they are created.

Ex-list, dict, set

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

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Code:

for i in range(1, 6):

print('\*' \* (2\*i - 1))

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

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Code:

for i in range(9, 0, -2):

print('|' \* i)