

20 May

Python Basic - 1

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

ans

Keywords in Python are reserved words that cannot be used as ordinary identifiers. They are used to define the syntax and structure of the Python language.

```
import keyword
print(keyword.kwlist)
['False', 'None', 'True', '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?

ans

don't use any keyword name, can be any combination of letters and numbers but should not start with numbers, special characters can't be used while naming variables, if it named like '_hello' it's a private identifier

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

ans

usually use lowercase letters, choose good descriptive name, don't use keyword names in variable

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

ans

Syntax error

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

ans def is used to create a function in python

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

it is used as an escape character like in '\n' also as a way to break python statement to multiple lines like by putting \ in the end of it

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

- (i) Homogeneous list
x = [1,2,3,4,5]
- (ii) Heterogeneous set
y = {'rat', 1, 2, 3, 'apple'}
- (iii) Homogeneous tuple
x = ('A', 'B', 'C', 'D')

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

immutable data types are those whose values cannot be changed once they're created
ex int, float ,string ,tuple
mutable data types are those objects whose values can be changed
ex list

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

```
*  
***  
*****  
*****  
*****
```

rows=9

```
for i in range(rows):  
    for j in range(i+1):  
        print("*", end="")  
    print("\n")
```

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

```
|||||||  
|||||  
||||  
|||  
||  
|
```

rows=9

```
for i in reversed(range(rows)):  
    for j in range(i+1):  
        print("|", end="")  
    print("\n")
```