



Samrat Ashok Technological Institute

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Assignment - 2

Ques. what do understand by software in computer science and how can you categorize the software.

Ans.

A computer science software refers to a set of collection of program, data, and instruction that enable a computer system to perform specific function or task. It encompasses all the utilities and libraries among other. Software is essentially the non-physical aspect of a computer system that enables hardware carry out desired operation.

Software can be categorized into several type based on different criteria.

(i) System Software - This type of software includes operating system eg. windows, macOS, linux that manage computer hardware and provide essential service to other software applications.

(ii) Application Software - Application software refer to program designed to perform specific task or function for end-user. ex. word processor, web-browser, email-client, etc.

Ques

write five feature of python that make user friendly?

Ans

Python it's known for its user friendly nature has several feature that contribute to its ease of use. Here are five features of python make its user friendly.

- (i) Readability
- (ii) simple and expressive syntax
- (iii) large standard libraries
- (iv) free and open source
- (v) Easy to code

Ques

list the various numerical data type in python with example?

Ans

In python there are several numerical data type available to representing numbers. Here are commonly used numerical data type in python along with example

(i)

integer (int): integer represent whole number without any fraction or decimal.

Ex $x = 10$



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Float - Float are numbers represent fractional and decimal part just like, ex.

$$x = 3.14$$

$$y = -2.5$$

$$z = 0.0$$

(3) Complex - Complex numbers are used to represent number with a real and imaginary part.

$$p = 2 + 3j$$

$$q = -1j$$

$$z = \text{Complex}(4, -2)$$

(4) Boolean - Boolean represent either true or false the value.

Ex

$$\text{it-true} = \text{true}$$

$$\text{it-false} = \text{false}$$

Ques.

write the out put for the following expression
is evaluated using a python interpreter.
write an error if you think the expression
will raise an error!

(i) `print(18 % 6)` = output = 0

(ii) `if 12 + 5 * 9 == 153:`

`print('true')`

`else:`

`print('false')`

output \Rightarrow false

Ques.

let the num 1 and 2 be two non empty
lists the last element of num 2 to the end of
num 1 can be written using ~~append~~ `append`.

Solve

`num1.append(num2[-1])`



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Q. List is mutable and tuple is immutable. justify with example.

Ans. In python list is a mutable and tuple is immutable. Justify with ex-
mutable list

```
My-list = [2, 3, 4, 5, 6]  
print(My-list)
```

```
My-list[2] = 10
```

```
print(My-list)
```

→ output : = ~~[2, 3, 4, 5, 6]~~ ²
[10, 3, 4, 5, 6]

Q. immutable tuple -

```
My-tuple = (1, 2, 3, 4, 5, 6)
```

```
print(My-tuple)
```

```
My-tuple[2] = 10
```

output -> raise an error