

# Python- Variable

## Assignment Questions

### Q1. Write all the conventions being followed while declaring a variable?

- Use descriptive names: Choose a name that describes the purpose of the variable so that other developers can easily understand its meaning.
- Use camelCase: Start with a lowercase letter and capitalize the first letter of each subsequent word. For example, firstName, numberOfStudents.
- Use lowercase for constants: If a variable is intended to be a constant, use all uppercase letters to declare it. For example, const PI = 3.14159.
- Avoid using reserved keywords: Do not use reserved keywords (such as var, let, const, if, for, etc.) as variable names. Use singular nouns for singular values: Use singular nouns to name variables that represent a single value. For example, age, height, name.
- Use plural nouns for collections: Use plural nouns to name variables that represent a collection of values. For example, students, fruits.
- Declare variables at the beginning of the scope: It is a common practice to declare all variables at the beginning of the block, function or file scope, to avoid confusion and errors.
- Initialize variables when declaring them: Whenever possible, initialize variables when declaring them to avoid unexpected values. For example, let counter = 0;

### Q2. What will happen if we declare a restricted keyword as a variable?

- In Python, you cannot declare a restricted keyword as a variable name because it is a syntax error. If you try to do so, you will get a SyntaxError exception

### Q3. Can we actually declare a string as a variable name?

- Yes, we can declare a string as a variable name in Python, but it is not a common practice and is generally not recommended. In Python, variable names must follow certain rules, which include:
- The name must start with a letter (a to z or A to Z) or an underscore (\_).
- The name can contain letters, numbers, and underscores.
- The name is case-sensitive.

### Q4. Is it possible for us to declare “\_” as a variable? If so, then write an example of it.

- Yes, we can declare it as a variable. Here is the example.

```
[1]: _="variable"
[3]: _
[3]: 'variable'
[4]: print(_)
      variable
[ ]:
```

**Q5. Using an example, explain how the variables in python are dynamic in nature.**

```
: print(x)  
print(type(x))
```

```
5  
<class 'int'>
```

```
: x = "Python"  
print(x)  
print(type(x))
```

```
Python  
<class 'str'>
```

**GitHub Repository:**