

1. What is the significance of Indentation in Python?

Ans: **indentation** is extremely important because it is used to define the structure and scope of the code. Unlike many other programming languages that use braces {} to define blocks of code, Python uses indentation to indicate the grouping of statements.

1. Define code blocks:

Use indentation to define code block such as if statements, loops, and function definitions.

- Example:

```
python
```

```
if condition:
```

```
    #Indented block
```

```
    statement
```

```
    statement2
```

2 . Nested Code Blocks:

- Indentation can be nested to represent nested code blocks.

- Example:

```
python
```

```
for i in range(5):
```

```
    #Outer loop
```

```
        for j in range(i):
```

```
            #Inner loop
```

```
                print(j, end="")
```

```
                print() # Print a newline after each inner loop
```

3. Function Definitions:

- Indentation is used to define the body of a function.

- Example:

```
Python
```

```
def greet(name):
```

#Indented block inside the function definition

```
print("Hello", name)
```

4. Class Definitions:

- Indentation is used to define the methods and attributes of a class.

- Example:

```
python
```

```
class MyClass:
```

#Indented block inside the class definition

```
definit (self, x):
```

```
self.x = x
```