Django Signals

Question 1: By default, are Django signals executed synchronously or asynchronously?

Answer: Synchronous Execution

By default, Django signals are executed synchronously. This means that when a signal is sent, the signal handlers are called in the same thread and the same execution context as the sender of the signal. The execution of the signal handler blocks the calling code until the handler completes its execution.

Question 2: Do Django signals run in the same thread as the caller?

Answer: Yes, in the Same Thread

Django signals run in the same thread as the caller by default. This means that if a signal is sent from a particular thread, the signal handlers are executed in that same thread.

Question 3: By default, do Django signals run in the same database transaction as the caller?

Answer: Yes, in the Same Transaction

By default, Django signals run within the same database transaction as the calling code. This means that if a signal is sent during a database transaction, the signal handlers will also be part of that transaction. If the transaction is rolled back, the changes made by the signal handlers will also be reverted.

Topic: Custom Classes in Python

Rectangle Class Requirements

1. **Initialization:** An instance of the Rectangle class requires length and width as integers to be initialized.
2. **Iteration:** The instance should be iterable, providing its dimensions in a specific format.

Example :

```
rect = Rectangle(10, 5)
for dimension in rect:
    print(dimension)
```

Output :

```
{'length': 10}
{'width': 5}
```