

Challenge 2 Q

Implement a function called `sort_students` that takes a list of student objects as input and sorts the list based on their CGPA (Cumulative Grade Point Average) in descending order. Each student object has the following attributes: `name` (string), `roll_number` (string), and `cgpa` (float). Test the function with different input lists of students.

class Student:

```
def __init__(self, name, roll_number, cgpa):
    self.name = name
    self.roll_number = roll_number
    self.cgpa = cgpa
```

```
def sort_students(student_list):
```

```
    sorted_students = sorted(student_list,
    key=lambda student: student.cgpa,
    reverse=True)
    return sorted_students
```

Example usage:

```
if __name__ == "__main__":
```

```
    students = [
        Student("Archana", "A101", 3.8),
        Student("Akshu", "B102", 3.5),
        Student("Nithi", "C103", 4.0),
        Student("Aruna", "D104", 3.9),
    ]
```

```
    sorted_students = sort_students(students)
```

```
    for student in sorted_students:
```

```
        print(f"Name: {student.name}, Roll
    Number: {student.roll_number}, CGPA:
    {student.cgpa}")
```

Output

Name: Nithi, Roll Number: C103, CGPA: 4.0

Name: Aruna, Roll Number: D104, CGPA: 3.9

Name: Archana, Roll Number: A101, CGPA: 3.8

Name: Akshu, Roll Number: B102, CGPA: 3.5