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