Cgpa calculator:-

```
def get_grade_point(grade):
    grade = grade.upper()

    grade_points = {
        'S': 10,
        'A': 9,
        'B': 8,
        'C': 7,
        'D': 6,
        'E': 5,
        'F': 0
    }

    return grade_points.get(grade, -1)



print("================================================")
print(" CGPA CALCULATOR ")
print(" NOTE: Enter FINAL GRADE (Theory + Lab Marks) ")
print("================================================\n")

n = int(input("Enter number of subjects: "))
```

```
subjects = []

print("\n--- Enter Subject Names and Credits ---")

for i in range(1, n + 1):
    print(f"\nSubject {i}")
    name = input("Subject Name: ")
    credit = int(input("Credits: "))

    subjects.append({
        "name": name,
        "credit": credit
    })

print("\n--- Enter FINAL Grades (After Theory + Lab) ---")

total_points = 0
total_credits = 0

for sub in subjects:
    grade = input(f"Enter FINAL grade for {sub['name']} (S/A/B/C/D/E/F): ")

    gp = get_grade_point(grade)

    if gp == -1:
```

```
        print("Invalid grade entered!")
        exit()

    points = gp * sub["credit"]

    sub["grade"] = grade.upper()
    sub["points"] = points

    total_points += points
    total_credits += sub["credit"]

cgpa = total_points / total_credits

print("\n========== CGPA REPORT ==========")
print("{:<15}{:<8}{:<8}{:<10}".format("Subject", "Grade", "Credits", "Points"))

for sub in subjects:
    print("{:<15}{:<8}{:<8}{:<10}".format(
        sub["name"],
        sub["grade"],
        sub["credit"],
        sub["points"]
    ))

print("---------------------------------")
print("Total Credits :", total_credits)
```

```
print("Final CGPA    :", round(cgpa, 2))
print("==================================")
```