

Tasks for Lab 4:

Problem 1: Exam Grading

Write a Python Program which asks the instructor to enter a student's details (namely, Name, Roll Number), and the score secured by the student in three subjects (namely in Physics, Chemistry and Maths). The program should then process this data and compute the grade for each subject and also the overall grade. The output should be presented in the terminal as neatly structured like a grade card.

The grade should be computed based on the following criteria:

- Score ≥ 90 : Grade A
- $80 \leq \text{Score} < 90$: Grade B
- $70 \leq \text{Score} < 80$: Grade C
- $60 \leq \text{Score} < 70$: Grade D
- Score < 60 : Grade F

Expected output:

```
-----  
Enter Student Name:  
Enter Roll No.  
Enter marks in Maths:  
Enter marks in Physics:  
Enter marks in Chemistry:  
-----  
Here is the Grade Card:  
-----  
Student Name:  
Student Roll:  
Grade in Maths: A  
Grade in Physics: A  
Grade in Chemistry: A  
Overall Grade: A  
-----  
Thank you!
```

Problem 2: Temperature Converter

Write a Python program that prompts the user to enter a temperature and its unit (Celsius or Fahrenheit). Based on the unit provided, convert the temperature to the other unit and display the result. Use a string variable to store the unit.

Problem 3: Username Validation

Prompt the user to enter a username. Write a Python program to check if the username meets the following criteria:

- The username must be at least 5 characters long.
- The username must not contain any special characters or spaces.

If the username meets the criteria, print "Valid username." Otherwise, print "Invalid username."

Problem 4: String Length Comparison

Prompt the user to enter two strings. Write a Python program to compare the lengths of the two strings and print a message indicating which string is longer, or if they are of equal length.
