



Exercise 18

While Loops

Tasks:

1. You are tasked with designing a C++ program that generates a multiplication table for a given number and displays it in a specific pattern. The program will use a **for** loop to create the table and display the multiplication results in the desired format.

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Multiplication Table Generator
Enter a positive integer: 12

Multiplication Table for 12:
12 x 1 = 12
12 x 2 = 24
12 x 3 = 36
12 x 4 = 48
12 x 5 = 60
12 x 6 = 72
12 x 7 = 84
12 x 8 = 96
12 x 9 = 108
12 x 10 = 120
```

2. You are tasked with designing a C++ program to display employee information retrieved from a database. The program should use a for loop to collect data for a specified number of employees. Each employee's name and salary will be entered by the user. After gathering the information, the program should display each employee's details.

Your program should perform the following steps:

- Prompt the user to enter the total number of employees.
- Use a for loop to:
- Prompt the user to enter the name of each employee.
- Prompt the user to enter the salary of each employee.
- Display the entered employee's name and salary.
- Display a concluding message indicating the end of the display.

3. You are tasked with designing a C++ program for a car rental company that calculates the total rental cost for customers based on various factors. The program will use a for loop to process multiple rental requests and determine the final cost for each customer.

Your program should perform the following tasks:

- I. Prompt the user to enter the total number of rental requests.
- II. Use a for loop to process each rental request:
 - For each request, prompt the user to provide the following information:
 - Car type (economy, standard, luxury)
 - Rental duration in days
 - Additional features (GPS, child seat, none)
 - Calculate the total rental cost based on the car type and additional features as follows:
 - Economy car: \$30 per day, additional features add \$10 each.
 - Standard car: \$50 per day, additional features add \$15 each.
 - Luxury car: \$100 per day, additional features add \$20 each.
 - Display the rental details including car type, rental duration, additional features, and the total cost.
- III. Display a concluding message indicating the end of the rental calculations.