Problem Statement

You are a software engineer at a standardized testing company which creates online tests for elementary schools. You have been tasked with creating practice materials for students learning their times tables so teachers can have their students practice in an environment similar to the actual test. Write a complete C/C++ program, **APP_C25_1.cpp**, which will quiz and grade the user on basic multiplication.

Instructions

Represent

- As a group/table use pseudocode to create a plan for solving the problem.

Plan

- Create a file named **APP_C25_1.cpp** .
- Outline the steps your program will take by adding comment statements to your file based on the pseudocode.

Implement

- In the file **APP_C25_1.cpp**, perform the following tasks:
  - Display the rules of the game to the user.
  - Use the random number generator to get two random integers in the range 1 <= x <= 12.
  - Display the two numbers to the user
  - Prompt the user to enter the product of the two numbers. Use a **`scanf`** statement to get this input.
  - Use **`if – else if – else`** structures to determine which message to display to the user based on the following outputs:
    - Correct response!
    - Incorrect response, correct answer is XX
  - Keep track of the number of correct and incorrect responses
  - At the end of each game prompt the user to choose one of the following:
    (1) play again
    (2) see statistics
    (3) reset statistics
    (4) quit
    Use a **`switch–case`** structure to implement this choice.
  - Display an error message if one of those options is not entered and ask the question again.
- Compile, link, and run your program.

Evaluate

- Check the four choices at the end of the program, as well as making sure that both the correct and incorrect response messages are functioning.

Document

- Create a single PDF that includes your code, planning documentation, output from running your program for each of the cases, and verification.
- Submit your PDF to Carmen according to the DAL.

Include the standard comment and **`printf()`** statements indicating name, seat number, etc.