Driver's License Exam



Source: Google Images

The local driver's license office has asked you to write a program that grades the written portion of the driver's license exam. The exam has 20 multiple choice questions. Here are the correct answers:

1.B	6.A	11.B	16.C
2.D	7.B	12.C	17.C
3.A	8.A	13.D	18.B
4.A	9.C	14.A	19.D
5 C	10 D	15 D	20 Δ

A student must correctly answer 15 of the 20 questions to pass the exam.

Write a class named **DriverExam** that holds the correct answers to the exam in an array field. The class should also have an array field that holds the student's answers. The class should have the following methods:

- 1. passed. Returns true if the student passed the exam, or false if the student failed
- 2. totalCorrect. Returns the total number of correctly answered questions
- 3. totalincorrect. Returns the total number of incorrectly answered questions
- 4. **questionsMissed.** An **int** array containing the question numbers of the questions that the student missed

Demonstrate the class in a complete program that asks the user to enter a student's answers, and then displays the results returned from the **DriverExam** class's methods.

Input Validation: Only accept the letters A, B, C, or D as answers.

DriverExam Class UML:

DriverExam - correct : char[] - student : char[] - missed : int [] - numCorrect : int = 0 - numIncorrect : int = 0 + DriverExam(s : char[]) - gradeExam() : void - makeMissedArray() : void + passed() : boolean + totalCorrect() : int + totalIncorrect() : int + questionsMissed() : int[]

Sample Output:

Enter your answers to the exam questions. (Make sure Caps Lock is ON!)

```
Question 1: B
Question 2: D
Question 3: A
Question 4: A
Question 5: C
Question 6: A
Question 7: B
Question 8: A
Question 9: C
Question 10: D
Question 11: A
Question 12: D
Question 13: A
Question 14: B
Question 15: C
Question 16: C
Question 17: C
Question 18: B
Question 19: D
Question 20: A
Correct answers: 15
Incorrect answers: 5
You passed the exam.
You missed the following questions:
11 12 13 14 15
Input Validation:
Enter your answers to the exam questions. (Make sure Caps Lock is ON!)
Question 1: a
ERROR: Valid answers are A, B, C, or D.
Question 1: A
Question 2: V
ERROR: Valid answers are A, B, C, or D.
Question 2:
```