**Gerald Derhemi**

**Member 2: Class Evaluating Testing for Method B**

**1. Class Name: StudentGradeTest**

**2. Test Method Overview:**

* **testValidGrades**: Tests for various valid grade inputs.
* **testInvalidGrades**: Tests for invalid grade inputs (non-"A"-"E" characters).
* **testEmptyGrade**: Tests for an empty string as a grade.
* **testNullGrade**: Tests for a null grade input.

**3. Test Method Details:**

**a. testValidGrades:**

* **Input**: "A", "B", "C", "D", "E"
* **Expected Output**: true
* **Evaluation**: This method tests if the valid grade inputs pass the validation. For each of the grades "A" through "E", the isValidGrade method should return true.

**b. testInvalidGrades:**

* **Input**: "X", "Y", "Z", "123"
* **Expected Output**: false
* **Evaluation**: This method tests if the invalid grade inputs (any character not between "A" and "E") correctly return false. The invalid grades should fail the regular expression check and return false.

**c. testEmptyGrade:**

* **Input**: "" (empty string)
* **Expected Output**: false
* **Evaluation**: The method tests whether an empty string is correctly treated as invalid, and the output should be false. The empty string does not match any valid grade.

**d. testNullGrade:**

* **Input**: null
* **Expected Output**: false
* **Evaluation**: The method tests if a null grade is handled correctly, returning false. Since null is not a valid grade, it should be considered invalid.

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| --- | --- | --- | --- |
| Input | Condition 1 (non-pull) | Condition 2(Valid Grade) | Output |
| A | T | T | T |
| B | T | T | T |
| C | T | T | T |
| D | T | T | T |
| E | T | T | T |
| X | T | F | F |
| Y | T | F | F |
| 123 | T | F | F |
| “” | T | F | F |
| Null | F | Irrelevant | F |