**Test Reference:**

|  |  |
| --- | --- |
| /\*\* |  |
|  | \* Add new dirty word or update if exists when a user plays a dirty word |
|  | \* @param word The dirty word plays |
|  | \*/ |

**Equivalent Classes:**

|  |  |  |
| --- | --- | --- |
|  | **Valid** | **Invalid** |
| **game\_id** | * **1.1** - 1 * **1.2** - {x | x > 0 and x < 2147483647 } * **1.3** - 2147483647 * **1.4** - 0 | * **1.a -** null * **1.b -**  {x | x < 0 and x > -2147483648 } * **1.c -** -1 * **1.d -**  -2147483648 |

**Class Representatives:**

|  |  |
| --- | --- |
| Equivalence Class | Representative |
| 1.1 | 1 |
| 1.2 | 33 |
| 1.3 | 2147483647 |
| 1.4 | 0 |
| 1.a | null |
| 1.b | -33 |
| 1.c | -1 |
| 1.d | -2147483648 |

**Representative Boundaries:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Equiv. Class** | **Representative** | **Lower Boundary** | **Upper Boundary** |
| 1.1 | 1 | 0 | 2 |
| 1.2 | 33 | 32 | 34 |
| 1.3 | 2147483647 | 2147483646 | 2147483648 |
| 1.4 | 0 | -1 | 1 |
| 1.a | null | - | - |
| 1.b | -33 | -34 | -32 |
| 1.c | -1 | -2 | 0 |
| 1.d | -2147483648 | -2147483649 | -2147483647 |

**Test Cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test ID** | **word** | **Eq. Class** | **Expected Output** |
| t\_0 | 1 | 1.1 |  |
| t\_1 | 33 | 1.2 |  |
| t\_2 | 2147483647 | 1.3 |  |
| t\_3 | 0 | 1.4 |  |
| t\_4 | null | 1.a |  |
| t\_5 | -33 | 1.b |  |
| t\_6 | -1 | 1.c |  |
| t\_7 | -2147483648 | 1.d |  |
| t\_8 | 0 | 1.1 |  |
| t\_9 | 2 | 1.1 |  |
| t\_10 | 32 | 1.2 |  |
| t\_11 | 34 | 1.2 |  |
| t\_12 | 2147483646 | 1.3 |  |
| t\_13 | 2147483648 | 1.3 |  |
| t\_14 | -34 | 1.b |  |
| t\_15 | -32 | 1.b |  |
| t\_16 | -2 | 1.c |  |
| t\_17 | -2147483649 | 1.d |  |
| t\_18 | -2147483647 | 1.d |  |