**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** |
| **word** | * **1.1 -** string composed of permissible characters that abides by the length requirements * **1.2 -** uppercase word | * **1.a -** non-encoded characters * **1.b -** empty string * **1.c -** single char * **1.d -** integer type * **1.e -** >11 lettered word * **1.f -** null |

**Class Representatives:**

|  |  |
| --- | --- |
| Equivalence Class | Representative |
| 1.1 | “cat” |
| 1.2 | “DOG” |
| 1.a | “典Josephus” |
| 1.b | “” |
| 1.c | “a” |
| 1.d | 78 |
| 1.e | “JosephusJosephus” |
| 1.f | null |

**Representative Boundaries:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Equiv. Class** | **Representative** | **Lower Boundary** | **Upper Boundary** |
| 1.1 | “cat” | “ca” | “catt” |
| 1.2 | “DOG” | “DO” | “DOGG” |
| 1.a | “典Josephus” | “典Josephu” | “典Josephuss” |
| 1.b | “” | - | “a” |
| 1.c | “a” | “” | “aa” |
| 1.d | 78 | 77 | 79 |
| 1.e | “JosephusJosephus” | “JosephusJosephu” | “JosephusJosephuss” |
| 1.f | null | - | - |

**Test Cases:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test ID** | **word** | **Eq. Class** | **Expected Output** |
| t\_0 | “cat” | 1.1 |  |
| t\_1 | “DOG” | 1.2 |  |
| t\_2 | “典Josephus” | 1.a |  |
| t\_3 | “” | 1.b |  |
| t\_4 | “a” | 1.c |  |
| t\_5 | 78 | 1.d |  |
| t\_6 | “JosephusJosephus” | 1.e |  |
| t\_7 | null | 1.f |  |
| t\_8 | “ca” | 1.1 |  |
| t\_9 | “catt” | 1.1 |  |
| t\_10 | “DO” | 1.2 |  |
| t\_11 | “DOGG” | 1.2 |  |
| t\_12 | “典Josephu” | 1.a |  |
| t\_13 | “典Josephuss” | 1.a |  |
| t\_14 | “aa” | 1.c |  |
| t\_15 | 77 | 1.d |  |
| t\_16 | 79 | 1.d |  |
| t\_17 | “JosephusJosephu” | 1.e |  |
| t\_18 | “JosephusJosephuss” | 1.e |  |