**Test Reference:**

|  |  |
| --- | --- |
| **/\*\*** |  |
|  | **\* updating whether a valid word is used as an extension** |
|  | **\*** |
|  | **\* @param updateWord** |
|  | **\* the word that needs an update on its is\_extension value** |
|  | **\* @param newValue** |
|  | **\* the new boolean that gets updated to the database** |
|  | **\* @return true if successful; false if word doesn't exist in the** |
|  | **\* valid\_word\_table; null if database error**  **\*\*/** |

**Equivalent Classes:**

|  |  |  |
| --- | --- | --- |
|  | **Valid** | **Invalid** |
| **updateWord** | * **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 |
| **newValue** | * **2.1 -** true literal * **2.2** - false literal | * **2.a -** null * **2.b -** “true” * **2.c -** “false * **2.d -** 1 * **2.e -** 0 |

**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 |
| 2.1 | true |
| 2.2 | false |
| 2.a | null |
| 2.b | “true” |
| 2.c | “false” |
| 2.d | 1 |
| 2.e | 0 |

**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 | - | - |
| 2.1 | true | - | - |
| 2.2 | false | - | - |
| 2.a | null | - | - |
| 2.b | “true” | “TRUE” | “TRue” |
| 2.c | “false” | “FALSE” | “FalSE” |
| 2.d | 1 | 0 | 2 |
| 2.e | 0 | -1 | 1 |

**Test Cases:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **updateWord** | **newValue** | **Eq. Class** | **Expected Output** |
| t\_0 | “cat” | true | 1.1, 2.1 |  |
| t\_1 | “DOG” | false | 1.2, 2.2 |  |
| t\_2 | “典Josephus” | true | 1.a | ERROR |
| t\_3 | “” | true | 1.b | ERROR |
| t\_4 | “a” | true | 1.c | ERROR |
| t\_5 | 78 | true | 1.d | ERROR |
| t\_6 | “JosephusJosephus” | true | 1.e | ERROR |
| t\_7 | null | true | 1.f | ERROR |
| t\_8 | “DOG” | null | 2.a | ERROR |
| t\_9 | “DOG” | “true” | 2.b | ERROR |
| t\_10 | “DOG” | “false” | 2.c | ERROR |
| t\_11 | “DOG” | 1 | 2.d | ERROR |
| t\_12 | “DOG” | 0 | 2.e | ERROR |
| t\_13 | “ca” | true | 1.1 |  |
| t\_14 | “catt” | true | 1.1 |  |
| t\_15 | “DO” | true | 1.2 |  |
| t\_16 | “DOGG” | true | 1.2 |  |
| t\_17 | “典Josephu” | true | 1.a | ERROR |
| t\_18 | “典Josephuss” | true | 1.a | ERROR |
| t\_19 | “aa” | true | 1.c | ERROR |
| t\_20 | 77 | true | 1.d | ERROR |
| t\_21 | 79 | true | 1.d | ERROR |
| t\_22 | “JosephusJosephu” | true | 1.e | ERROR |
| t\_23 | “JosephusJosephuss” | true | 1.e | ERROR |
| t\_24 | “DOG” | “TRUE” | 2.b | ERROR |
| t\_25 | “DOG” | “TRue” | 2.b | ERROR |
| t\_26 | “DOG” | “FALSE” | 2.c | ERROR |
| t\_27 | “DOG” | “FalSE” | 2.c | ERROR |
| t\_28 | “DOG” | 2 | 2.d | ERROR |
| t\_29 | “DOG” | -1 | 2.e | ERROR |