**Test Reference:**

|  |  |
| --- | --- |
| /\*\* |  |
|  | \* Updates the cumulative score of a player |
|  | \* |
|  | \* @param uname |
|  | \* the user to update |
|  | \* @param points |
|  | \* the score to add to the cumulative score |
|  | \*/ |

**Equivalent Classes:**

|  |  |  |
| --- | --- | --- |
|  | **Valid** | **Invalid** |
| **uname** | * **1.1 -** string composed of permissible characters that abides by the length requirements | * **1.a -** non-encoded characters * **1.b -** empty string * **1.c -** single char * **1.d -** integer type * **1.e -** valid characters, out of bounds * **1.f -** null |
| **points** | * **2.1** - 1 * **2.2** - {x | x > 0 and x < 2147483647 } * **2.3** - 2147483647 * **2.4** - 0 | * **2.a -** null * **2.b -**  {x | x < 0 and x > -2147483648 } * **2.c -** -1 * **2.d -**  -2147483648 |

**Class Representatives:**

|  |  |
| --- | --- |
| Equivalence Class | Representative |
| 1.1 | “tenbergen” |
| 1.a | “北” |
| 1.b | “” |
| 1.c | “a” |
| 1.d | 17 |
| 1.e | “JosephusJosephusJosephus” |
| 1.f | null |
| 2.1 | 1 |
| 2.2 | 33 |
| 2.3 | 2147483647 |
| 2.4 | 0 |
| 2.a | null |
| 2.b | -33 |
| 2.c | -1 |
| 2.d | -2147483648 |

**Representative Boundaries:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Equiv. Class** | **Representative** | **Lower Boundary** | **Upper Boundary** |
| 1.1 | “tenbergen” | “tenberge” | “tenbergenb” |
| 1.a | “北” | 典 | 书 |
| 1.b | “” | - | “a” |
| 1.c | “a” | “” | “aa” |
| 1.d | 17 | 16 | 18 |
| 1.e | “JosephusJosephusJosephus” | “JosephusJosephusJosephu” | “JosephusJosephusJosephuss” |
| 1.f | null | - | - |
| 2.1 | 1 | 0 | 2 |
| 2.2 | 33 | 32 | 34 |
| 2.3 | 2147483647 | 2147483646 | 2147483648 |
| 2.4 | 0 | -1 | 1 |
| 2.a | null | - | - |
| 2.b | -33 | -34 | -32 |
| 2.c | -1 | -2 | 0 |
| 2.d | -2147483648 | -2147483649 | -2147483647 |

**Test Cases:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **uname** | **points** | **Eq. Class** | **Expected Output** |
| t\_0 | “tenbergen” | 1 | 1.1, 2.1 |  |
| t\_1 | “北” | 1 | 1.a | ERROR |
| t\_2 | “” |  | 1.b | ERROR |
| t\_3 | “a” | 10 | 1.c | ERROR |
| t\_4 | 17 | 10 | 1.d | ERROR |
| t\_5 | “JosephusJosephusJosephus” | 10 | 1.e | ERROR |
| t\_6 | null | 10 | 1.f | ERROR |
| t\_7 | “tenbergen” | 33 | 2.2 |  |
| t\_8 | “tenbergen” | 2147483647 | 2.3 |  |
| t\_9 | “tenbergen” | 0 | 2.4 |  |
| t\_10 | “tenbergen” | null | 2.a | ERROR |
| t\_11 | “tenbergen” | -33 | 2.b | ERROR |
| t\_12 | “tenbergen” | -1 | 2.c | ERROR |
| t\_13 | “tenbergen” | -2147483648 | 2.d | ERROR |
| t\_14 | “tenberge” | 10 | 1.1 |  |
| t\_15 | “tenbergenn” | 10 | 1.1 |  |
| t\_16 | 典 | -2147483648 | 1.a | ERROR |
| t\_17 | 书 | 10 | 1.a | ERROR |
| t\_18 | “aa” | 10 | 1.c | ERROR |
| t\_19 | 16 | 10 | 1.d | ERROR |
| t\_20 | 18 | 10 | 1.d | ERROR |
| t\_21 | “JosephusJosephusJosephu” | 10 | 1.e | ERROR |
| t\_22 | “JosephusJosephusJosephuss” | 10 | 1.e | ERROR |
| t\_23 | “tenbergen” | 2147483646 | 2.2 |  |
| t\_24 | “tenbergen” | 2147483648 | 2.2 |  |
| t\_25 | “tenbergen” | -34 | 2.b | ERROR |
| t\_26 | “tenbergen” | -32 | 2.b | ERROR |
| t\_27 | “tenbergen” | -2 | 2.c | ERROR |
| t\_28 | “tenbergen” | -2147483649 | 2.d | ERROR |
| t\_29 | “tenbergen” | -2147483647 | 2.d | ERROR |