**Equivalence Class Documentation**

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**SharkAttacksInDateRange:**

| Equivalence Class | Date 1 | Date 2 |
| --- | --- | --- |
| Same date given twice | 1/1/2023 | 1/1/2023 |
| Range of dates given | 12/1/2022 | 1/1/2023 |
| Month with 31 days, but 32nd day given | 1/1/1 | 1/32/2022 |
| Month with 30 days, but 31st given | 1/1/1 | 4/31/2022 |
| End date occurs before start date | 12/31/2022 | 1/1/1 |
| Negative month given | 1/1/1 | -1/1/2022 |
| Negative day given | 1/1/1 | 1/-1/2022 |
| Month greater than 12 given | 1/1/1 | 13/1/2022 |
| Future date given | 1/1/1 | 12/31/9999 |
| February on Leap year, multiple of 100 | 1/1/1 | 2/29/2000 |
| February on Non-Leap year, multiple of 100 | 1/1/1 | 2/29/1900 |
| February on Non-Leap year | 1/1/1 | 2/29/2001 |
| February on Non-Leap year | 1/1/1 | 2/29/2022 |
| February on Leap year | 1/1/1 | 2/29/1904 |

**GetSpecies:**

| Equivalence Class | Supplied List |
| --- | --- |
| Occurrences of Zambesi Shark attacks | Full dataset |
| Assert common words aren’t picked up | Full dataset |

**GetBodyParts:**

| Equivalence Class | Supplied List |
| --- | --- |
| Occurrences of shin attacks | Full dataset |
| Assert common words aren’t picked up | Full dataset |

**GetAttackByID**:

| Equivalence Class | ID |
| --- | --- |
| ID that exists | 1021.11.15 |
| ID that doesn’t exist | -1 |

**CompareAttacks:**

| Equivalence Class | ID 1 | ID 2 |
| --- | --- | --- |
| Some elements are missing from database | 2022.04.07 | 2018.11.11.b |
| All necessary elements exist and are known in database | 2022.12.08 | 2017.11.30.a |
| Two IDs that do not exist are passed in | 2100.00.00 | 3432.12.12 |
| Strings are passed in instead of IDs | ‘abcd’ | ‘wrongInput’ |
| The second of the two IDs does not exist | 2022.12.08 | 3432.12.12 |
| The first of the two IDs does not exist | 2100.00.00 | 2022.11.27 |

**GetSharkSpecies:**

| Equivalence Class | ID |
| --- | --- |
| The shark Species is known | 2022.10.07 |
| The shark species is unknown | 2022.11.03 |
| An non-existent ID is passed in | 2100.00.00 |
| A string is passed in instead of an ID | ‘abcd’ |

**ActivityAtTimeOfSharkAttack:**

| Equivalence Class | ID |
| --- | --- |
| The activity is in in the database | 2022.11.27 |
| The activity is unknown | 2022.05.07 |
| An non-existent ID is passed in | 2100.00.00 |
| A string is passed in instead of an ID | ‘abcd’ |

**GetInjury**

| Equivalence Class | ID |
| --- | --- |
| The injury is in the database | 2022.11.27 |
| The injury is unknown | 2022.06.21 |
| An non-existent ID is passed in | 2100.00.00 |
| A string is passed in instead of an ID | ‘abcd’ |

**CheckValidCountry**

| Equivalence Class | Country |
| --- | --- |
| A fake country is passed in | West Korea |
| A country abbreviation is passed in | us |
| Another country abbreviation is passed in | usa |
| A country’s full name is passed in | united states of america |

**MostCommonSharkArea**

| Equivalence Class | Country |
| --- | --- |
| Test country’s most common attack area | USA |
| Test that country yields correct number of most common shark attack areas | USA |
| Test for a fake country | West Korea |

**LeastCommonSharkArea**

| Equivalence Class | Country |
| --- | --- |
| Test country’s least common attack area | USA |
| Test that country yields correct number of least common shark attack areas | USA |
| Test for a fake country | West Korea |

**SafestBeachFromCoordinates**

| Equivalence Class | Latitude | Longitude |
| --- | --- | --- |
| Test with coordinates inside of country | 38.6270 | -90.1994 |
| Test with coordinates in the middle of the ocean | 49.439557 | -31.287717 |

**SafestBeachFromCountry**

| Equivalence Class | Country |
| --- | --- |
| Test with a country | usa |
| Test with a made up country | West Korea |

**WhatCountry**

| Equivalence Class | Latitude | Longitude |
| --- | --- | --- |
| Inside of a country | 52.509669 | 13.376294 |
| Middle of Ocean, finds closest country | 49.439557 | -31.287717 |