**Boundary Conditions and Equivalence Partitions**

Zip Codes

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | # of digits = 5 | 11111, 34567, 98765 |
| Invalid | 5> # of digits < 5 | 111111, 5555 |
| Valid | 00600 <= value<=99950 | 00601, 99949, 8000 |
| Invalid | Value<00600, value>99950 | 00599, 99951 |

States\*

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | Value exists in S (please see below) | All possible state abbreviations from AL.. WY, that exist in S |
| Invalid | Value does not exist in S | Ai, CCH, OL |

Last Name

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of characters<=15 | Antonacci, J |
| Invalid | 15< # of characters,  # of characters < 1 | (blank), JosephBAntonacci |
| Valid | All characters in A-Z or a-z or - | Antonacci, Joe-Antonacci |
| Invalid | Not all characters in A-Z or a-z or - | Antonacci1, Joseph^ |
| Invalid | “-“ begins or ends the input value | -Antonacci, Joseph- |

First Name

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of characters<=15 | Joseph, J |
| Invalid | 15< # of characters,  # of characters < 1 | (blank), JosephBAntonacci |
| Valid | All characters in A-Z or a-z or - | Antonacci, Joe-Antonacci |
| Invalid | Not all characters in A-Z or a-z or - | Antonacci1, Joseph^ |
| Invalid | “-“ begins or ends the input value | -Antonacci, Joseph- |

City\*

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | Value exists in S (please see below) | All possible valid cities, that exist in S (i.e. cities valid for the US states) |
| Invalid | Value does not exist in S | supercalafragalistic, expialladocious |

Address\*

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | Valid US street address |  |
| Invalid | Invalid US street address |  |

Customer Id

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of digits<=15 | 1, 100, 55555, 123456789012345 |
| Invalid | 15< # of digits,  # of digits < 1 | (blank), 1234567890123456 |
| Valid | All characters digits(integers) | 12345, 67890 |
| Invalid | Not all characters are digits | 12345a, b67890, 123c456 |

Movie Id

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of digits<=15 | 1, 100, 55555, 123456789012345 |
| Invalid | 15< # of digits,  # of digits < 1 | (blank), 1234567890123456 |
| Valid | All characters digits(integers) | 12345, 67890 |
| Invalid | Not all characters are digits | 12345a, b67890, 123c456 |

Movie Title

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of characters<=30 | Iron Man 2, The Matrix: Reloaded |
| Invalid | 30< # of characters,  # of characters < 1 | (blank), The Lord of the Rings Forever and Ever and Ever Fifth Sequel to the Trilogy |

Dates(\*)

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | Integers only in form MM/DD/YYYY | 12/02/2018, 01/01/2018 |
| Invalid | Any form not in the valid format from above. Or those with invalid date ranges. | (blank), aa/bb/2018, 12/02/201, 12/2/2018, 12/02/2019 |

Employee Id

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of digits<=15 | 1, 100, 55555, 123456789012345 |
| Invalid | 15< # of digits,  # of digits < 1 | (blank), 1234567890123456 |
| Valid | All characters digits(integers) | 12345, 67890 |
| Invalid | Not all characters are digits | 12345a, b67890, 123c456 |

Password

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of characters<=30 | 65df4h6h4, 5df4sh56dz4h65dh4 |
| Invalid | 30< # of characters,  # of characters < 1 | (blank), 84dasg654s8g6sfg46fdhz465dh465h |

Secret Answer

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | 1<=# of characters<=30 | 65df4h6h4, 5df4sh56dz4h65dh4, yellow, blue |
| Invalid | 30< # of characters,  # of characters < 1 | (blank), blueyellowgreenredpinkorangebrown, 84dasg654s8g6sfg46fdhz465dh465h |

Email Address\*

|  |  |  |
| --- | --- | --- |
| Partition Type | Partition Description | Test Cases |
| Valid | Characters/Integers/Specials @ [some valid domain] | Antonacci [J@gmail.com](mailto:J@gmail.com), AntonJ@yahoo.com |
| Invalid | Blank or with invalid use of characters or invalid domain name | (blank), Joseph\Antonacci@gmail.com, AntonJ@+584+54.com |

Please note: Some categories for validity were chosen based on known valid sets. Rather than list these, it seems in the interest of time, effort, and expense to utilize already existing tools, where possible, to handle checking certain types of partition conditions. For example, valid email addresses. These are each marked with a \*