CAT

V: Valid

I: Invalid

N: Null

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| ID | Test Case(s) | Input | Expected Results |
| 1 | Cat without Output Stream | **Arguments**: V  **InputStream**: V  **OutputStream**: N | **CatException**, **Message**: cat: OutputStream not provided |
| 2 | Cat with one valid file | **Arguments**: V  **InputStream**: V  **OutputStream**: V | Contents of file with a **New Line:** ‘\n’ at the end |
| 3 | Cat with multiple valid files | **Arguments**: V  **InputStream**: V  **OutputStream**: V | Contents of all fileswith a **New Line:** ‘\n’ at the end |
| 4 | Cat with non-existent file | **Arguments**: I  **InputStream**: V  **OutputStream**: V | **New Line:** ‘\n’ |
| 5 | Cat with no Arguments and No input stream | **Arguments**: N  **InputStream**: N  **OutputStream**: V | **CatException**, **Message**: cat: InputStream not provided |
| 6 | Cat with no Arguments, Valid Input Stream Exists | **Arguments**: N  **InputStream**: V  **OutputStream**: V | Contents of InputStream |

Grep

V: Valid

I: Invalid

N: Null

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| ID | Test Case(s) | Input | Expected Results |
| 1 | Grep without Output Stream | **Pattern**: V  **Files:** V  **InputStream**: V  **OutputStream**: N | **GrepException**, **Message**: grep: OutputStream not provided |
| 2 | Grep without pattern and files | **Pattern**: N  **Files:** N  **InputStream**: V  **OutputStream**: V | **New Line:** ‘\n’ |
| 3 | Grep with pattern, without files, without input stream | **Pattern**: V  **Files:** N  **InputStream**: N  **OutputStream**: V | **GrepException**, **Message**: grep: InputStream not provided |
| 4 | Grep with pattern, without files, with valid input stream | **Pattern**: V  **Files:** N  **InputStream**: V  **OutputStream**: V | **Line(s) from the input stream containing the matching pattern** |
| 5 | Grep with one valid file | **Pattern**: V  **Files:** V  **InputStream**: V  **OutputStream**: V | **Line(s) from the file containing the matching pattern** |
| 6 | Grep multiple valid files | **Pattern**: V  **Files:** V  **InputStream**: V  **OutputStream**: V | **Line(s) from the files containing the matching pattern** |
| 7 | Grep with some valid files | **Pattern**: V  **Files:** V & I  **InputStream**: V  **OutputStream**: V | **Line(s) from the valid files containing the matching pattern** |
| 8 | Grep with non-existent file | **Pattern**: V  **Files:** I  **InputStream**: V  **OutputStream**: V | **New Line:** ‘\n’ |

Echo

V: Valid

I: Invalid

N: Null

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| ID | Test Case(s) | Input | Expected Results |
| 1 | Echo without Output Stream | **Arguments:** V  **InputStream**: V  **OutputStream**: N | **EchoException:** OutputStream not provided |
| 2 | Echo without arguments | **Arguments:** N  **InputStream**: V  **OutputStream**: V | **EchoException:** Null Arguments |
| 3 | Echo empty string | **Arguments:** V  **InputStream**: V  **OutputStream**: V | **Empty String** |
| 4 | Echo with arguments | **Arguments:** V  **InputStream**: V  **OutputStream**: V | **Arguments** |

Cal

V: Valid

I: Invalid

N: Null

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| --- | --- | --- | --- |
| ID | Test Case(s) | Input | Expected Results |
| 1 | Cal without Output Stream | **Monday Option:** V  **Year:** V  **Month:** V  **InputStream**: V  **OutputStream**: N | **CalException:** OutputStream not provided |
| 2 | Cal with year | **Monday Option:** N  **Year:** V  **Month:** N  **InputStream**: V  **OutputStream**: V | **Prints out all months in a 3 by 4 format of that particular year starting from Sunday** |
|  | Cal with any invalid arguments | **Monday Option:** I  **Year:** I  **Month:** I  **InputStream**: V  **OutputStream**: V | **CalException:** cal: Invalid Argument |
| 3 | Cal with Monday option and year | **Monday Option:** V  **Year:** V  **Month:** N  **InputStream**: V  **OutputStream**: V | **Prints out all months in a 3 by 4 format of that particular year starting from Monday** |
| 3 | Cal with month and year | **Monday Option:** N  **Year:** V  **Month:** V  **InputStream**: V  **OutputStream**: V | **Prints out the calendar of the month in that year starting from Sunday** |
| 4 | Cal with Monday option, month and year | **Monday Option:** V  **Year:** V  **Month:** V  **InputStream**: V  **OutputStream**: V | **Prints out the calendar of the month in that year starting from Monday** |