

**class name:** `Date`**method signature:** `public boolean isValid() {}` //check if a given date is a valid calendar date

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	The method shall return false for any date with a year before 1900.	<ul style="list-style-type: none"> <li>Create an instance of Date with valid day and month but with a year &lt; 1900.</li> <li>test data: "2/29/1899"</li> </ul>	false
2	Number of days in February for a non leap year shall be 28. The method shall return false if the date given has 29 days for a non-leap year.	<ul style="list-style-type: none"> <li>Create an instance of Date with the month = 2, day &gt; 28, and the year is a non-leap year</li> <li>test data: "2/29/2011"</li> </ul>	false
3	Valid month shall be $\geq 1$ . The method shall return false for a month value < 1.	<ul style="list-style-type: none"> <li>Create an instance of Date with the month &lt; 1</li> <li>test data: "0/29/2012"</li> </ul>	false
4	The day of a date should be $\geq 1$ and less than another constant depending on the month and if the year is a leap year.	<ul style="list-style-type: none"> <li>Create an instance of Date with the day &lt; 1</li> <li>test data: "11/0/2012"</li> </ul>	false
5	Valid month shall be $\leq 12$ . The method shall return false for a month value > 12.	<ul style="list-style-type: none"> <li>Create an instance of Date with the month &gt; 12</li> <li>test data: "13/29/2012"</li> </ul>	false
6	Number of days in February for a leap year shall be 29. The method shall return true if the date given has 29 days for a leap year.	<ul style="list-style-type: none"> <li>Create an instance of Date with the month = 2, day = 29, and the year is a leap year</li> <li>test data: "2/29/2012"</li> </ul>	true
7	Number of days in January shall be between 1 and 31 inclusive.	<ul style="list-style-type: none"> <li>Create an instance of Date with the month 1, day [1,31], valid year such as 2012</li> <li>test data: "1/3/2012"</li> </ul>	true

**class name:** `AccountManager`**method signature:** `public boolean close() {}` //returns true if found and closed account, otherwise

false.

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	The method shall return true if the event is found in AccountDatabase and is removed.	<ul style="list-style-type: none"><li>• Create two same instances of Account objects. Pass into AccountDatabase and close the same account.</li><li>• test data: AccountDatabase(accounts[], 1) close(the same account)</li></ul>	true
2	The method shall return false if the event is not found in AccountDatabase and subsequently not removed.	<ul style="list-style-type: none"><li>• Create two different instances of Account objects. Pass into AccountDatabase and try to close the different Account.</li><li>• test data: AccountDatabase(accounts[], 1) close(different Account)</li></ul>	false
3	GUI should not allow empty initial deposit.	<ul style="list-style-type: none"><li>• Enter in all other parameters to create an account on the GUI but don't enter in initial deposit.</li><li>• test data: first name, last name, D.O.B, Account Type, Initial Deposit EMPTY</li></ul>	Not possible
4	Should not accept initial deposit of value $\leq 0$	<ul style="list-style-type: none"><li>• Enter in all other parameters to create an account on the GUI but enter value <math>\leq 0</math> as initial deposit.</li><li>• test data: first name, last name, D.O.B, Account Type, Initial Deposit <math>\leq 0</math></li></ul>	Initial deposit cannot be 0.
5	GUI should not allow empty/missing parameters	<ul style="list-style-type: none"><li>• Enter in all other parameters to create an account on the GUI but don't enter one parameter such as first name.</li><li>• test data: last name, D.O.B, Account Type, Initial Deposit = 1000</li></ul>	Not possible

6	Should print the correct list of accounts ordered by account type and profile when selecting "Account Type Order" GUI button.	<ul style="list-style-type: none"> <li>• Create multiple accounts using the GUI and enter valid parameters for each.</li> <li>• test data: Multiple accounts entered through GUI, should print as expected.</li> </ul>	Should print the correct order.
7	Cannot withdraw if account has insufficient balance	<ul style="list-style-type: none"> <li>• Create account using the GUI and enter valid parameters, then enter same parameters but put greater value in Transaction amount parameter on GUI and click withdraw</li> <li>• test data: first name, last name, D.O.B, Account Type, Initial Deposit 1000; first name, last name, D.O.B, Account Type, Transaction Amount 1001</li> </ul>	Withdraw - insufficient fund.
8	Should not be able to type invalid/unnecessary characters into GUI input boxes. In this case should, not be able to enter anything other than alphanumeric characters.	<ul style="list-style-type: none"> <li>• Enter non-alphanumeric characters into the input boxes</li> <li>• test data:  }”:&lt;?&lt;?*&amp;^%\$#</li> </ul>	Not possible
9	Should not be able to enter numbers into first and last name GUI fields	<ul style="list-style-type: none"> <li>• Enter numbers into first or last name GUI fields</li> <li>• test data: first name: 89713</li> </ul>	Not possible
10	Should not be able to enter alphabetical characters into Initial Deposit or Transaction Amount fields.	<ul style="list-style-type: none"> <li>• Enter alphabetical characters into the Transaction Amount field.</li> <li>• test data: qwsdaefsrfaesat</li> </ul>	Not possible
11	Typing in display boxes should not affect anything else in GUI or in process. GUI should remain in sane state.	<ul style="list-style-type: none"> <li>• Enter random characters into any display box in the GUI.</li> <li>• test data: aes8fya9y2hkajds })(*&amp;^*!%~</li> </ul>	Not effect