

Class: Date
Method signature: public boolean isValid()

Test case	Requirement	Test description and Input data	Expected Result
#1	The method will return true for any leap year that has Feb 29	Create an instance of Date with the month = 2, day > 28, and the year is a leap year "2/29/2020"	True
#2	The method will return true for any non leap year that has a valid date	Create an instance of Date with the month = 2, day > 28, and the year is a leap year "03/15/2022"	True
#3	The method will return false for any non leap year that has Feb 29	Create an instance of Date with the month = 2, day > 28, and the year is a non-leap year "02/29/2011"	False
#4	Valid range for the day shall be greater or equal to 1, and less than or equal to 31. The method shall return false for a day value outside the valid range.	Create an instance of Date with a valid month, but the day > 31 "10/32/2022"	False
#5	Valid range for the day shall be greater or equal to 1, and less than or equal to 31. The method shall return false for a day value outside the valid range.	Create an instance of Date with a valid month, but the day < 1 "6/0/2022"	False
#6	Valid range of the year is from any year before this year, and no further than this present year.	Create an instance of Date with a valid month, but the year out of range of the present year "2/15/2032"	False
#7	On a leap year, February has exactly 29 days. No more, no less. Valid range of days in February on a leap year is $0 < x < 30$.	Create an instance of Date with a valid month, but the day out of range of the month on a leap year "2/30/2020"	False

Class: AccountDatabase
Method signature: public boolean close()

Test case	Requirement	Test description and Input data	Expected Result
#1	<p>The account is created with all the valid credentials, is commanded to open, and then is closed.</p> <p>The code will close an account that exists.</p>	<p>The date of birth is a valid date, and the profile information is given. The account is then opened, and then closed.</p> <pre>Date dob1 = new Date(10, 20, 1995); Account account1 = new Checking(new Profile("Mike", "Williams", dob1), 3000); assertTrue(accountDatabase.open(account1)); assertTrue(accountDatabase.close(account1));</pre>	True
#2	<p>The account is created with all the valid credentials, but is never commanded to open, and then is closed.</p> <p>The code cannot close an account that does not exist.</p>	<p>The date of birth is a valid date, and the profile information is given. But the account is never given the command to open, and then the code attempts to close the account.</p> <pre>Date dob2 = new Date(5, 5, 2003); Account nonExistingAccount = new Checking(new Profile("Alice", "Johnson", dob2), 3000); assertFalse(accountDatabase.close(nonExistingAccount));</pre>	False