

Class name: Date
Method signature: public boolean isValid()

Test Case #	Requirement	Test Description and Input Data	Expected result/output
1	The method shall return false for any date with a year set to 0.	<ul style="list-style-type: none">- Create an instance of Date with a year of 0, which is an invalid year.- Test Input: "12/25/0000"	False
2	The method shall return false if the day exceeds the maximum for that month (e.g., 31 for April).	<ul style="list-style-type: none">- Create an instance of Date with April 31st (invalid because April has only 30 days).- Test Input: "4/31/2023"	False
3	The method shall return false if the month is less than 1.	<ul style="list-style-type: none">- Create an instance of Date with an invalid month of 0.- Test Input: "0/15/2021"	false
4	The method shall return false if the day is set to 0.	<ul style="list-style-type: none">- The method shall return false if the day is set to 0.- Test Input: "3/0/2023"	false
5	The method shall return true for a valid date in a leap year.	<ul style="list-style-type: none">- Create an instance of Date with February 29th, 2020 (which is a leap year).- Test Input: "2/29/2020"	true
6	The method shall return true for a valid date in a common year.	<ul style="list-style-type: none">- Create an instance of Date with December 25th, 2023.- Test Input: "12/25/2023"	true

Class name: Profile
Method signature: public int compareTo()

Test Case #	Requirement	Test Description and Input Data	Expected result/output
1	The method shall return -1 when this Profile is less than the other Profile.	- Test Case: Compare Profile("Alice", "Baker", "5/15/1995") with Profile("Bob", "Baker", "5/15/1995")(first name comparison).	-1
2	The method shall return -1 when this Profile is less than the other Profile.	- Test Case: Compare Profile("Alice", "Adams", "5/15/1995") with Profile("Alice", "Baker", "5/15/1995")(last name comparison).	-1
3	The method shall return -1 when this Profile is less than the other Profile.	- Test Case: Compare Profile("Alice", "Baker", "5/14/1995") with Profile("Alice", "Baker", "5/15/1995")(date of birth comparison).	-1
4	The method shall return 1 when this Profile is greater than the other Profile.	- Test Case: Compare Profile("Bob", "Baker", "5/15/1995") with Profile("Alice", "Baker", "5/15/1995")(first name comparison).	1
5	The method shall return 1 when this Profile is greater than the other Profile.	- Test Case: Compare Profile("Alice", "Baker", "5/15/1995") with Profile("Alice", "Adams", "5/15/1995")(last name comparison).	1
6	The method shall return 1 when this Profile is greater than the other Profile.	- Test Case: Compare Profile("Alice", "Baker", "5/16/1995") with Profile("Alice", "Baker", "5/15/1995")(date of birth comparison).	1
7	The method shall return 0 when both profiles are equal.	- Test Case: Compare Profile("Charlie", "Davis", "8/22/1990") with Profile("Charlie", "Davis", "8/22/1990")	0

		(all fields are the same).	
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