

class name: Student
method signature: public boolean compareTo() //compares two students

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	Two students with the exact same profile must be equal	<ul style="list-style-type: none">Create Profile one: An instance of the Student class with profile class having name Anis Chihoub. Date of birth (DOB) is 06/20/2022. Create a student object whose profile's name is Anis Chihoub with DOB 06/20/2022	An integer, 0, indicating that the two profiles are equal.
2	Two students with the same first name and last name, but Student 1's birthday is before Student 2's	<ul style="list-style-type: none">Create an instance of the Student class with a profile class having name Anis Chihoub. Date of birth (DOB) is 06/20/2002. Create a student object whose profile's name is Anis Chihoub with DOB 06/20/2003	An integer, -1, indicating that Student 1 is greater than Student 2.
3	A null student must be considered less than a Student who exists	<ul style="list-style-type: none">Create an empty student object for student 1. Create a student object for student 2 whose profile's name is Anis Chihoub with DOB 06/20/2022	An integer, 1, indicating that Student 1 is greater than Student 2.
4	A student with a last name that comes before another student must be greater than the other.	<ul style="list-style-type: none">Create an instance of the Student class with a profile class having name Anis Chihoub. Date of birth (DOB) is 06/20/2002. Create a student object whose profile's name is Anis Dhihoub with DOB 06/20/2002	An integer, -1, indicating that Student 1 is greater than Student 2.
5	Two students with the same	<ul style="list-style-type: none">Create an instance of	An integer, 1,

	first name and last name, but Student 2's birthday is before Student 1's	the Student class with a profile class having name Anis Chihoub. Date of birth (DOB) is 06/20/2022. Create a student object whose profile's name is Anis Chihoub with DOB 06/20/2020	indicating that Student 1 is less than Student 2.
6	A student with a last name that comes after another student must be less than the other.	<ul style="list-style-type: none"> Create an instance of the Student class with a profile class having name Anis Chihoub. Date of birth (DOB) is 06/20/2022. Create a student object whose profile's name is Anis Bhihoub with DOB 06/20/2022 	An integer, -1, indicating that Student 1 is less than Student 2.
7	Two students with the same profile, but student 1 has more credits than student 2.	<ul style="list-style-type: none"> Create two instances of the Student class with the exact same profile. However, student 1 has more credits 	An integer, 0, indicating that student 1 is the same as student 2

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 months April, June, September and November, each has 30 days and should not be given a date with any day larger than that.	<ul style="list-style-type: none"> Create an instance of Date where month=4,6,9 or 11, day>30, with any year Test data: "4/31/2003" 	False
2	Non leap year days in February should be 28 and the number of days in leap year should be 29. Method should return false if given any day>28 for non-leap	<ul style="list-style-type: none"> Create an instance of Date where month=2, day=29, and year is not a leap year Test data: "2/29/2003" 	False

	years.		
3	Valid range for months is 1-12. Method should return false for anything greater or less than that range.	<ul style="list-style-type: none"> Create an instance of Date where month>12 or month < 1, any valid day, and any valid year Test data: "13/31/2003" 	False
4	Valid range for months is 1-12, days is 1-30, years is a positive number. Method returns false for any negative entry.	<ul style="list-style-type: none"> Create an instance of Date where month <1 or day< 1, or year < 1 Test data: "-9/-2/-2023" 	False
5	Any month with 31 days can not be given a date where the date field is greater than 31. Method should return false for any day > 31 or any of these months.	<ul style="list-style-type: none"> Create an instance of Date where day > 31 Test data: "12/32/2023" 	False
6	Non leap year days in February should be 28 and the number of days in leap year should be 29. Method should return true given any day <= 29.	<ul style="list-style-type: none"> Create an instance of Date where month=2, day=29, and year is not a leap year Test data: "2/29/2004" 	True
7	Any month with 31 days has a range of 1-31 days. The method should return true if, for a given month, the day provided to isValid is within the range	<ul style="list-style-type: none"> Create an instance of Date where month=any with 31 days, 1<=day<=31, and any valid year Test data: "1/31/2003" 	True