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	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 non-leap year	● Create an instance of Date with the month = 2, day > 28 and the year is a non-leap year ● Input data: "2/29/2011"	False
2	Number of days in February for a non-leap year shall be 28. The method shall return true if the date given has 28 days for non-leap year	● Create an instance of Date with the month = 2, day<= 28 and the year is a non-leap year ● Input data: "2/28/2011"	True
3	Number of days in February for a leap year shall be 29. The method shall return false if the date given has 30 days for leap year	● Create an instance of Date with the month = 2, day > 29 and the year is a leap year ● Input data: "2/30/2000"	False
4	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 leap year	● Create an instance of Date with the month = 2, day <= 29 and the year is a leap year ● TInputest data: "2/29/2000"	True
5	Number of days in months that have only 31 days. The method shall return false if the date given is more than 31 days for months with only 31 days	● Create an instance of Date with the month = 3, day > 31 and any year ● Input data: "3/32/2011"	False
6	Number of days in months that have only 31 days. The method shall return true if the date given is less than or equals to 31 days for months with only 31 days	● Create an instance of Date with the month = 3, day <= 31 and any year ● Input data: "3/31/2011"	True
7	Number of days in months that have only 30 days. The method shall return false if the date given is more than 30 days for months with only 30 days	● Create an instance of Date with the month = 6, day > 30 and any year ● Input data: "6/31/2011"	False

8	Number of days in months that have only 30 days. The method shall return true if the date given is less than or equals to 30 days for months with only 30 days	● Create an instance of Date with the month = 6, day <= 30 and any year ● Input data: "6/30/2011"	True
9	Number of days in any month that is less than 1 day. The method shall return false if the date given is less than 1 day	● Create an instance of Date with the any month, day < 1 and any year ● Input data: "4/0/2011"	False
10	Number of months in a year that is more than 12 months. The method shall return false if the month given is more than 12 months	● Create an instance of Date with the month = 13, any day and any year ● Input data: "13/26/2011"	False
11	Number of months in a year that is less than 1 month. The method shall return false if the month given is less than 1 month	● Create an instance of Date with the month = 0, any day and any year ● Input data: "0/26/2011"	False

Class name: Event
Method signature: public boolean equals(){} // Checks if two Event objects are equal

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	This method returns false if there is two different events	● Create an instance of an Event and another instance of an completely different Event ● Input data: 　○ The first event with date of 05/10/2024, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45 　○ The second event with date of 12/25/2023, timeslot of afternoon, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30	False

| 2 | This method returns true if there is two same events | ● Create an instance of an Event and another instance of the same Event
● Input data:
  ○ The first event with date of 05/10/2024, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
  ○ The second event with date of 05/10/2024, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45 | True |

Method signature: public String toString(){} // Format all event details into a String

| 1 | This method returns the correct format of events in a string | ● Create an instance of an Event
● Input data: An event with date of 05/10/2024, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45 | "[Event Date: 5/10/2024] [Start: 10:30 AM] [End: 11:15 AM] @ARC103 (Allison Road Classroom, Busch) [Contact: Computer Science, fdc16@rutgers.edu]" |

Method signature: public int compareTo(){} // Compare two events

| 1 | This method returns "Less than" if event one's date is before event two's date | ● Create an instance of an Event and another instance of another Event at a different date
● Input data:
  ○ The first event with date of 11/10/2023, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
  ○ The second event with date of 11/20/2023, timeslot of afternoon, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30 | Negative number |
| 2 | This method returns "Greater than" if event one's date is after event two's date | ● Create an instance of an Event and another instance of another Event at a different date
● Input data:
  ○ The first event with date of 11/20/2023, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
  ○ The second event with date of 11/10/2023, timeslot of afternoon, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30 | Positive number |

3	This method returns "Equal" if event one and event two happens at the same date and timeslots	● Create an instance of an Event and another instance of another Event at a same date and timeslots
		● Input data:
		  ○ The first event with date of 11/10/2023, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
		  ○ The second event with date of 11/10/2023, timeslot of morning, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30
			0

4	This method returns "Less than" if event one happens before event two on the same date	● Create an instance of an Event with an earlier timeslot and another instance of another Event at a later timeslot, both with the same date
		● Input data:
		  ○ The first event with date of 11/10/2023, timeslot of morning, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
		  ○ The second event with date of 11/10/2023, timeslot of afternoon, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30
			Negative number

5	This method returns "Greater than" if event one happens after event two on the same date	● Create an instance of an Event with an later timeslot and another instance of another Event at a earlier timeslot, both with the same date
		● Input data:
		  ○ The first event with date of 11/10/2023, timeslot of evening, location ARC103, department of CS, email of fdc16@rutgers.edu, duration of 45
		  ○ The second event with date of 11/10/2023, timeslot of morning, location AB2225, department of BAIT, email of sjd13@rutgers.edu, duration of 30
			Positive number