| Class Name: Date  Method Signature: public boolean isValid(){} //determines if a date is a valid calendar date |
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| Test Case # | Requirement | Test description and Input Data | Expected result/output |
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| 1 | The method will return false for any date with a year before 0. | * Create an instance of Date with valid day and month but with a year < 0. * test data: “12/23/-1” | false |
| 2 | Valid range for the month value will be >=1 and <=12. The method will return false for a month value that is not inside the valid range. | * Create an instance of Date with valid day and year but with a month >12. * test data: “13/29/2023” | false |
| 3 | Number of days in February for a non-leap year is 28. The method will return false if the date given has 29 days for a non-leap year. | * Create an instance of Date with a valid day, month, and year but month value is February (2) and day value is (29) in a non-leap year. * test data: “2/29/2011” | false |
| 4 | Number of days in February for a leap year is 29. The method will return false if the date given has 29 days for a leap year. | * Create an instance of Date with a valid day, month, and year but month value is February (2) and day value is (29) in a leap year. * test data: “2/29/2012” | true |
| 5 | The number of days in January is 31. The method will return true if the date given in January has 31 days. | * Create an instance of Date with valid day, month, and year but month value is January (1) and day value is 31. * test data: “1/31/2023” | true |
| 6 | The number of days in April is 30. The method will return false if the date given in April has 31 days. | * Create an instance of Date with valid day, month, and year but month value is April (4) and day value is 31. * test data: “4/31/2023” | false |
| 7 | The number of days in September is 30. The method will return false if the date given in September has 31 days. | * Create an instance of Date with valid day, month, and year but month value is September (9) and day value is 31. * test data: “9/31/2023” | false |

| Class Name: Event  Method Signature: public boolean equals(Object obj)} //checks if two dates, timeslots, and locations of an event are equal. |
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| Test Case # | Requirement | Test description and Input Data | Expected result/output |
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| 1 | Given two events, the two dates are not equal. The method will return false. | * Create two instances of events with valid dates, timeslots, and locations but the dates are different. * Test data: date1 = “11/14/2023”,   date2 = “12/15/2023” | false |
| 2 | Given two events, the two timeslots are not equal. The method will return false. | * Create two instances of events with valid dates, timeslots, and locations but the timeslots are different. * Test data: event1 = Timeslot.MORNING, event2 = Timeslot.AFTERNOON | false |
| 3 | Given two events, the two locations are not equal. The method will return false. | * Create two instances of events with valid dates, timeslots, and locations but the locations are different. * Test data: event1 = Location.HLL114, event2 = Location.AB2225 | false |
| 4 | Given two events, the two dates and the timeslots are not equal. The method will return false. | * Create two instances of events with valid dates, timeslots, and locations, but the dates and timeslots are different. * Test data: date1 = “12/15/2023”, date2 = “11/14/2023”, event1 = Timeslot.MORNING, event2 = Timeslot.EVENING | false |
| 5 | Given two events, all dates, timeslots, and locations of an event are equal. | * Create two instances of events with valid dates, timeslots, and locations where all values are the same/equal. * Test data: date1, date2 = “12/15/2023”, event1, event2 = Timeslot.MORNING, Location.AB2225 | true |
| 6 | Given two events, the two dates and the locations are not equal. The method will return false. | * Create two instances of events with valid dates, timeslots, and locations, but the dates and locations are different. * Test data: date1 = “6/23/2023”, date2 = “4/27/2023”, event1 = Location.AB2225, event2 = Location.ARC103 | false |