

**APCS**  
**ConditionalStatements.java**

Using either Eclipse or BlueJ access the Java application class file ConditionalStatements.java

Include your name, due date, and class period in the comments section.

Modify the main method to be able to test the two project methods.

**static String isLeapYear(String year):** The current calendar, called the Gregorian calendar, was introduced in 1582. Write a program that requests a year as input and states whether it is a leap year.

The rules for a leap year are as follows:

- All years before 1582 are not part of the Gregorian calendar. Although leap years existed before this time.
- Every year divisible by 4 is a leap year, with the exception of the years ending in 00
- If the year ends in 00 it must be divisible by 400 to be a leap year, such as 1600 and 2000 but not 1700, 1800 or 1900

Your method should incorporate an IF block to determine whether or not the inputted year is part of the Gregorian calendar leap years.

You may wish to test your program with various years, included but not limited to the leap years of 2012 and 2000, and the non-leap years of 2010 and 1900. You should also have a response for years outside of the Gregorian Calendar, such as 1580.

**static String rockPaperScissors(String userPlay):**

Add statements to the program as indicated by the comments so that the program asks the user to enter a play, generates a random play for the computer, compares them and announces the winner with a reason as to why. When tested your program should look like this:

```
Play Rock\Paper\Scissors
Enter your play ("R", "P", or "S" only)
r
You played R.
Computer played S.
Rock crushes scissors, you win!
```

The user should be able to enter upper or lower case r, p, and s. The user's play is stored as a String to make it easy to convert whatever is entered to upper case. Utilize String comparisons to determine the winner, do not convert the userPlay into an int. Any reference to Rock-Paper-Scissors-Lizard-Spock will result in a loss of points.

***\*\*Time Frame\*\****

**2 Class Periods**

***\*\*Points\*\****

**isLeapYear – 5 points**

**rockPaperScissors – 10 points**

***\*\*Deductions\*\****

**No Name – loss of 5points per program**

**Compile Errors – 5points each**

**Logic Errors – 2points each**

**Days Late – 2points per day per late program**