TargetReady

assignment for day#1

Assignment #1

Calendar for given month and year

Implement the Java function listed below:

```
public static void printCalendar(int month, int year) {
        /// do stuff here
}
```

The function should accept `month` and `year` and print the calendar for the same. If inputs are invalid, appropriate error message/s should be printed.

Sample output for the inputs (8, 2018):

```
Su Mo Tu We Th Fr Sa
           1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
```

PS:

- Do not use any builtin Java classes like `Date` or `Calendar`
- Divide the function into small reusable functions, if possible.

Assignment #2

Number to words

Write a function called "inWords" that takes a number between 1 and 99,99,99,999 and returns a String representing the input number in words.

```
public String inWords(int num) {
        // do stuff here
        return null;
}
```

For example,

```
inWords(12345);
// should return "twelve thousand three hundred forty five"
inWords(10203040);
```

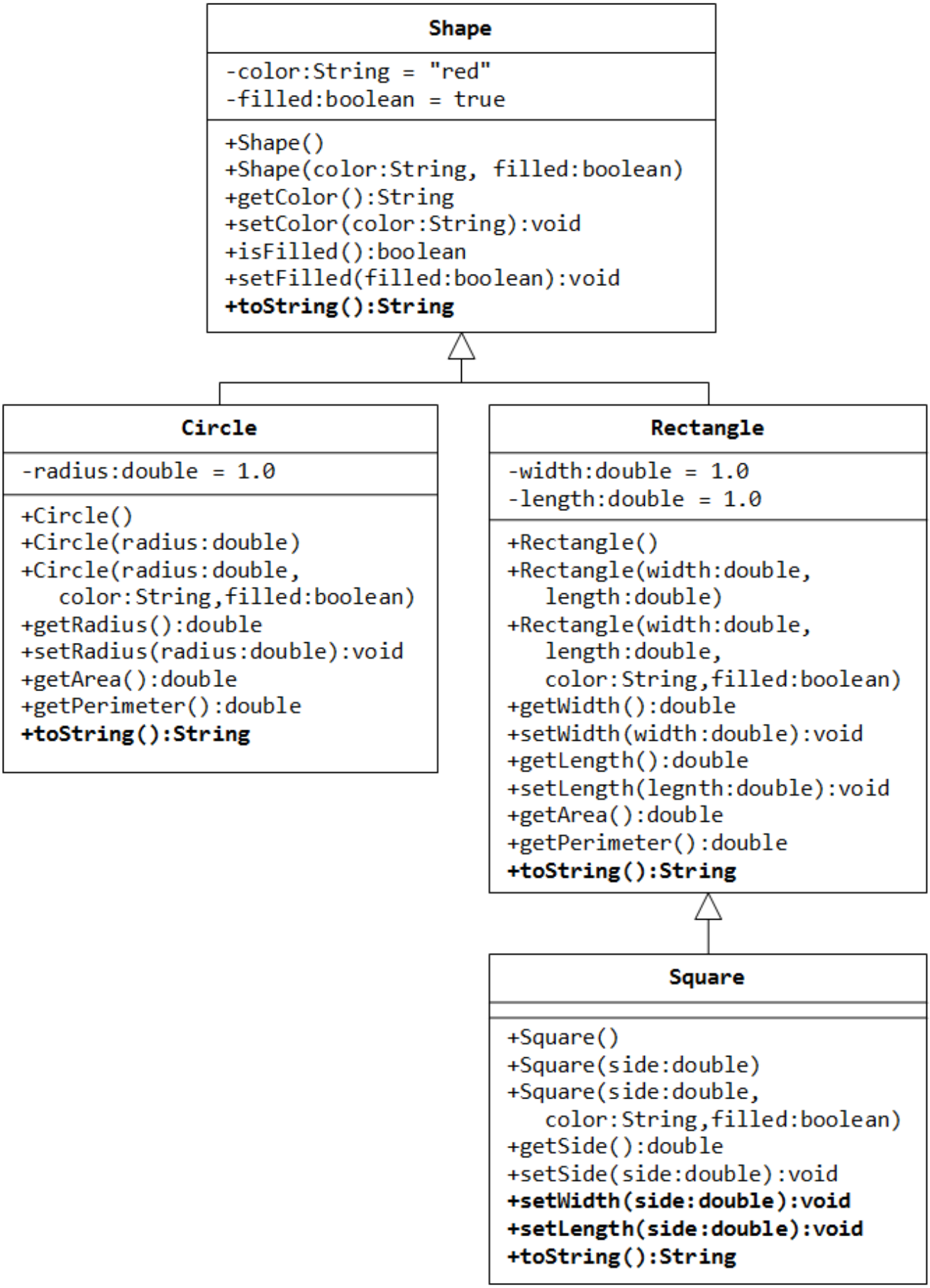
```
// should return "one crore two lakh three thousand forty"
inWords(101);
// should return "one hundred one"
```

Call the function in main, multiple times by supplying multiple values and verify the same.

Assignment #3

Classes, inheritance and polymorphism

Create the classes `Shape`, `Circle`, `Rectangle`, and `Square` as shown in the *UML* diagram below:



The `toString` function of the above classes should return text as given below:

|Classname|Sample return value from toString()| |---|---| |Shape|A Shape with color of xxx and filled/Not filled| |Circle|A Circle with radius=xxx, which is a subclass of yyy

(where yyy is the output of the toString() method from the superclass)| |Rectangle|A Rectangle with width=xxx and length=zzz, which is a subclass of yyy (where yyy is the output of the toString() method from the superclass)| |Square|A Square with side=xxx, which is a subclass of yyy (where yyy is the output of the toString() method from the superclass)|

In the `main()` method of a Program class, create an array of 10 `Shape` references containing a mixture of `Circle`, `Rectangle` and `Square` objects of different dimensions. Using a loop, print the `perimeter` and `area` for all of them.
