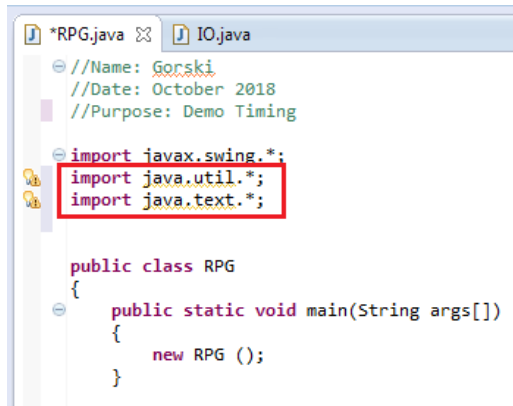


Timing an event

1. Add this code to the top of your program:

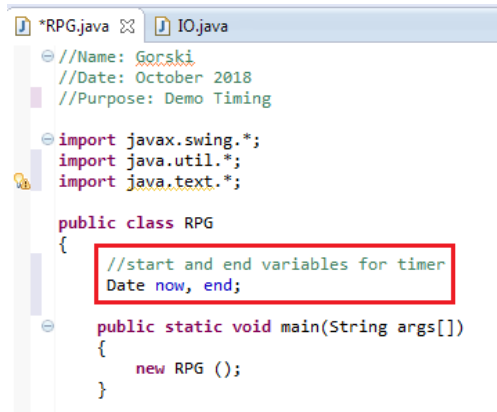
```
import java.util.*;
import java.text.*;
```



A screenshot of an IDE window showing a Java file named *RPG.java. The code includes comments for Name (Gorski), Date (October 2018), and Purpose (Demo Timing). Below the comments, three import statements are listed: import javax.swing.*; import java.util.*; and import java.text.*;. These three lines are enclosed in a red rectangular box. Below the imports, the start of a public class RPG is visible, with a main method that creates a new RPG object.

2. Add this code inside the class:

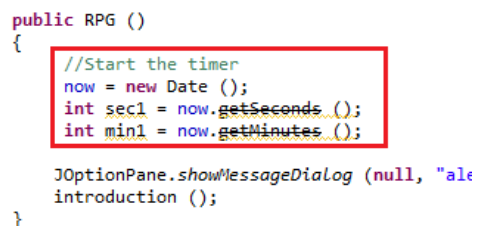
```
//start and end variables for timer
Date now, end;
```



A screenshot of an IDE window showing the same Java file. The code is identical to the previous screenshot, but now the two lines of code from the previous step (//start and end variables for timer and Date now, end;) have been added inside the RPG class, just before the main method. These two lines are enclosed in a red rectangular box.

3. Add this code when you want to start timing:

```
//Start the timer
now = new Date ();
int sec1 = now.getSeconds ();
int min1 = now.getMinutes ();
```



A screenshot of an IDE window showing the RPG class constructor. The code for the constructor is: public RPG () { //Start the timer now = new Date (); int sec1 = now.getSeconds (); int min1 = now.getMinutes (); JOptionPane.showMessageDialog (null, "all introduction ()); }. The three lines of code for starting the timer are enclosed in a red rectangular box.

4. Add this code to stop the timing.

```
//End the timer
end = new Date ();
int sec2 = end.getSeconds ();
int min2 = end.getMinutes ();

public RPG ()
{
    //Start the timer
    now = new Date ();
    int sec1 = now.getSeconds ();
    int min1 = now.getMinutes ();

    JOptionPane.showMessageDialog (null, '

    //End the timer
    end = new Date ();
    int sec2 = end.getSeconds ();
    int min2 = end.getMinutes ();

}
}
```

5. Add this code to do something with the results.

```
//Calculate time: move on if quick enough
int elapsed_sec = (min2 * 60 + sec2) - (min1 * 60 + sec1);
if(elapsed_sec<15) {
    System.out.println("Excellent. You completed that quickly.");
    System.out.println("You can move on.");
    introduction ();
} else {
    System.out.println("Sadly, you took too long.");
    System.out.println("The sharks circled you and ate you.");
    System.out.println("GAME OVER.");
    System.exit(0);
}

//End the timer
end = new Date ();
int sec2 = end.getSeconds ();
int min2 = end.getMinutes ();

//Calculate time: move on if quick enough
int elapsed_sec = (min2 * 60 + sec2) - (min1 * 60 + sec1);
if(elapsed_sec<15) {
    System.out.println("Excellent. You completed that quickly.");
    System.out.println("You can move on.");
    introduction ();
} else {
    System.out.println("Sadly, you took too long.");
    System.out.println("The sharks circled you and ate you.");
    System.out.println("GAME OVER.");
    System.exit(0);
}
}
```

```
public void introduction ()
```