

Key point: You can invoke `System.currentTimeMillis()` to return the current time.

- The `currentTimeMillis` method in the `System` class returns the current time in milliseconds elapsed since the time midnight, January 1, 1970 GMT, as shown in Figure 2.2. This time is known as the *UNIX epoch*. The epoch is the point when time starts, and 1970 was the year when the UNIX operating system was formally introduced.

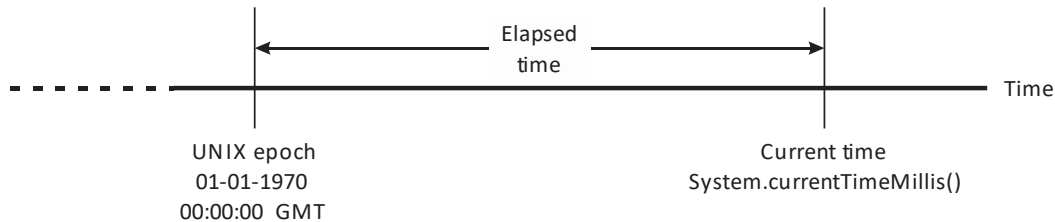


Figure 2.2 The `System.currentTimeMillis()` returns the number of milliseconds since the UNIX epoch.

- Obtain the total milliseconds since midnight, January 1, 1970 in `totalMilliseconds` by invoking `System.currentTimeMillis()`.
- Obtain the total seconds `totalSeconds` by dividing `totalMilliseconds` by `1000`.
- Compute the current second from `totalSeconds % 60`.
- Obtain the total minutes `totalMinutes` by dividing `totalSeconds` by `60`.
- Compute the current minute from `totalMinutes % 60`.
- Obtain the total hours `totalHours` by dividing `totalMinutes` by `60`.
- Compute the current hour from `totalHours % 24`.

Listing 2.7 ShowCurrentTime.java

```
1  public class ShowCurrentTime {
2      public static void main(String[] args) {
3          //Obtain the total milliseconds since midnight, Jan. 1, 1970
4          long totalMilliseconds = System.currentTimeMillis();
5
6          //Obtain the total seconds since midnight, Jan. 1, 1970
7          long totalSeconds = totalMilliseconds / 1000;
8
9          //Compute the current second in the minute in the hour
10         long currentSecond = totalSeconds % 60;
11
12         //Obtain the total minutes
13         long totalMinutes = totalSeconds / 60;
14
15         //Compute the current minute in the hour
16         long currentMinute = totalMinutes % 60;
17
18         //Obtain the total hours
19         long totalHours = totalMinutes / 60;
20
21         //Compute the current hour
22         long currentHour = totalHours % 24;
23
24         //Display results
25         System.out.println("Current time is " + currentHour + ":"
26             + currentMinute + ":" + currentSecond + " GMT");
27     }
28 }
```

run:

Current time is 23:37:37 GMT

BUILD SUCCESSFUL (total time: 0 seconds)