public class Time {

private long hour ; // declared private data field of type long

private long minute ; // declared private data field of type long

private long second ; // declared private data field of type long

Time() { // no argument constructor to create a time object for the current time using system.currentTimemillis() method

// using example of 2.7 showCurrentTime to get the hour , minute and second

long totalMilliseconds = System.currentTimeMillis();

long totalSeconds = totalMilliseconds / 1000;

long currentSecond = totalSeconds % 60;

long totalMinutes = totalSeconds / 60;

long currentMinute = totalMinutes % 60;

long totalHours = totalMinutes / 60;

long currentHour = totalHours % 24;

hour = currentHour;

minute = currentMinute;

second = currentSecond;

}

Time(long specifElapTime) { // constructor with one argument to create a time object with specified elapsed time

long totalSeconds = specifElapTime / 1000;

long currentSecond = totalSeconds % 60;

long totalMinutes = totalSeconds / 60;

long currentMinute = totalMinutes % 60;

long totalHours = totalMinutes / 60;

long currentHour = totalHours % 24;

hour = currentHour;

minute = currentMinute;

second = currentSecond;

}

Time (long newHour, long newMinute, long newSecond) { // constructor with 3 arguments of type long for h,m,s

hour = newHour;

minute = newMinute;

second = newSecond;

}

public long getHour() { // getHour method that return the current hour from the object

return hour;

}

public long getMinute() { // getHour method that return the current minute from the object

return minute;

}

public long getSecond() { // getHour method that return the current second from the object

return second;

}

public void setTime (long elapsedTime){ // settime method with one argument for setting a specified elapsed time

long totalSeconds = elapsedTime / 1000;

long currentSecond = totalSeconds % 60;

long totalMinutes = totalSeconds / 60;

long currentMinute = totalMinutes % 60;

long totalHours = totalMinutes / 60;

long currentHour = totalHours % 24;

hour = currentHour;

minute = currentMinute;

second = currentSecond;

}

}

public class TestTime { // testtime class

public static void main (String[] args) {

Time t1 = new Time(); // declare and instantiate object t1 of type time

long hour = t1.getHour(); // calling the getHour method using t1 object and assign the return value to the variable hour

long minute = t1.getMinute(); // calling the getMinute method using t1 object and assign the return value to the variable minute

long second = t1.getSecond(); // calling the getSecond method using t1 object and assign the return value to the variable second

Time t2 = new Time(555550000); // declare and instantiate object t2 of type time

long hour2 = t2.getHour(); //calling the getHour method using t2 object and assign the return value to the variable hour2

long minute2 = t2.getMinute(); //calling the getMinute method using t2 object and assign the return value to the variable minute2

long second2 = t2.getSecond(); //calling the getSecond method using t2 object and assign the return value to the variable second2

// display the time of object 1 using the format hour:minute:second

System.out.println("Time of object 1 is "+hour+"h:"+minute+"m:"+second+"s");

// display the time of object 2 using the format hour:minute:second

System.out.println("Time of object 1 is "+hour2+"h:"+minute2+"m:"+second2+"s");