**Class for Time and opertations like read write**

**import** java.util.Scanner;

**public** **class** Time {

//data members

**int** hour,minute,second;

//Input function

**public** **void** input()

{

Scanner sc=**new** Scanner(System.*in*);

**do**{

System.*out*.print("Enter valid details");

System.*out*.print("\nHours:");

hour=sc.nextInt();

System.*out*.print("Minutes:");

minute=sc.nextInt();

System.*out*.print("Seconds:");

second=sc.nextInt();

}**while**(minute>59||second>59); //Repeat the input process till valid input

}

//Function to display time

**public** **void** display()

{

System.*out*.println(hour+"hours "+minute+"minutes "+second+"second");

}

//Function to find greatest time value

**public** **void** great(Time t)

{

System.*out*.println("Greater time value");

**if**(hour>t.hour)

System.*out*.println(hour+":"+minute+":"+second);

**else**

System.*out*.println(t.hour+":"+t.minute+":"+t.second);

}

//function to find difference between two time values

**public** **void** difference(Time t)

{

**int** diff\_hour,diff\_minute,diff\_second;

//subtract small time value from great

**if**(hour>t.hour)

{

diff\_hour=hour-t.hour;

diff\_minute=minute-t.minute;

diff\_second=second-t.second;

}

**else**

{

diff\_hour=t.hour-hour;

diff\_minute=t.minute-minute;

diff\_second=t.second-second;

}

//If time difference is negative then converting to positive

**if**(diff\_minute<0||diff\_second<0){

diff\_minute=Math.*abs*(diff\_minute);

diff\_second=Math.*abs*(diff\_second);

}

//If seconds greater than 59, increasing minutes by 1

**if**(diff\_second>59)

{

diff\_minute+=1;

diff\_second-=59;

}

//If minutes greater than 59,increasing hour by 1

**if**(diff\_minute>59)

{

diff\_hour+=1;

diff\_minute-=59;

}

System.*out*.println("\nTime difference:");

System.*out*.println(diff\_hour+"hours "+diff\_minute+"minutes "+diff\_second+"seconds ");

}

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

//Objects creation of class

Time t1=**new** Time();

Time t2=**new** Time();

System.*out*.println("Time 1");

//input value of time 1

t1.input();

System.*out*.println("Time 2");

//input value of time 2

t2.input();

//display time values

System.*out*.println("Time value 1:");

t1.display();

System.*out*.println("Time value 2:");

t2.display();

//display greater time value

t1.great(t2);

//display difference between time values

t1.difference(t2);

}

}