Design two exception classes DateException and TimeException with suitable getMessage() method. DateException should be a checked exception. TimeException should be an unchecked exception. Design two classes as follows: Class MyDate - this class should have the following > Data members - Day, Month, Year > Methods >> getInput() with suitable parameters to take input from the user. This method should throw an exception of type DateException if the user inadvertently enters a date that is not valid. The getInput() method should NOT handle the exception in itself. >> showDate() - to display the date entered by the user in dd/mm/yyyy format Class MyTime - this class should have the following > Data members - Hour, Minute, Second > Methods >> getInput() with suitable parameters to take input from the user. This method should throw an exception of type TimeException if the user inadvertently enters values that is not valid. This method should be equipped with its own exception handler. >> showTime() - to display the date entered by the user in hh:mm:ss format Write the main method with suitable try-catch blocks and run the program.

**Code:**

class DateException extends Exception

{

public String getMessage()

{

return("DateException has occuered");

}

}

class TimeException extends RuntimeException

{

public String getMessage()

{

return("TimeException has occuered");

}

}

class MyDate

{

int date,month,year;

void getInput(int x,int y,int z) throws DateException

{

if(x<=31 && y<=12)

{ date=x;

month=y;

year=z;

}

else

{

throw new DateException();

}

}

void showDate()

{

System.out.println("the date is:- " +date+ "/" +month+ "/" +year );

}

}

class MyTime

{

int hour,minute,second;

void getInput(int x,int y,int z)

{

try

{

if(x<=24 && y<=60 && z<=60)

{ hour=x;

minute=y;

second=z;

}

else

{

throw new TimeException();

}

}

catch(Exception e)

{

String s=e.getMessage();

System.out.println(s);

}

}

void showTime()

{

System.out.println("the time is:- " +hour+ ":" +minute+ ":" +second );

}

}

class main

{

public static void main(String args[])

{

MyDate ob1=new MyDate();

try

{

ob1.getInput(2,4,2017);

ob1.showDate();

ob1.getInput(35,13,3450);

}

catch(Exception e)

{

String b=e.getMessage();

System.out.println(b);

}

MyTime ob2=new MyTime();

ob2.getInput(20,30,40);

ob2.showTime();

ob2.getInput(25,59,70);

}

}

**Output:**

