	EXPERIMENT: No. Assignment - 2.
*	Set A.
	a through the first the second of the second
J.	White a program that create 2 threads - each displaying
1-2 15	a message Chass the message as a parameter to the
	a message Chass the message as a parameter to the constructor). The threads should display the messages continuously till the user presses ctrl-c. Also display the thread information as its is running.
	continuously till the user presses ctrl-c. Also display
	the thread information as its is running.
	Ass2SetAlijava
	The second of th
27	class NewThread implements Runnable
000 \$k≠0 8 000 \$	<u>{</u>
	Thread t;
327	String str; all alchaling at many min a distalla
x.V.	Liver interest inserter con the Herre do to
grade	NewThread Cstring str)
. [sen	the those unline to intraction with out of
	t = new Thread Cthis);
	this.str = str;
	System · out · psintln (t);
	t-start(),
	g and the second of the second
	public void run ()
	?
Marian San	toy
	30 million and the date of the
	for(ii)
REGAL MOUSTAGES	Teacher's Sign.:

```
Thread. sleep (500);

System out println (str);

I catch (Interrupted Exception c)

I the relevant of the property of the plant of the property of the plant of t
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2) Write a java program to calculate the sum and average of an array of 1000 integers (generated randomly) using 10 threads Each thread calculates the sum of 100 integers (Ise these values to calculate average. [Use join method].

```
import java ulil.*;
```

class NewThread implements Runnable

Threat t; sum = 0, start, end, avg, arr[];

New Thread Cint arrit , int start, int end)

this arr = arr; this stack = stock;

EXPERIMENT : this end = end; t = new Thread Cthis).

System. ocet. peintln Ct+ "Range = "+start+" - "+ public void run() for Ci=start; i = end; i++) sum = sum + arr [i]; Thread . sleep (00). aug = sum /100;

System · out · psintln (t + "Sum = " + sum + "

Aug = " + aug);

I catch CInterrupted Exception e) 53 class AssaSetA2 am I have bend day public static void main (string args []) NewThread obj [] = new NewThread [Jo]; int i , cnt = -1 , arr[]; Random r = new Random (); Teacher's Sign.:_

```
arr = new int [1000];
         for Ci=o; i<1000; i++)
         arr[i] = r.next Int (1000);
         for Ci = 0; i < 10; i++)
           obj [i] = new Newthread Carr, ++cnt, cnt = cnt +91).
        try
>
          System out preintly ("In *** waiting for threads to finish *** \n");
             for Ci=o;i <10; i++)
              obj [i] ·t·join();
           I catch CEnterrupted Exception e) 52
           System out printly c"In xxx main thread exiting. xxx In");
* Set A Extra programe for practice
```

s. Define a thread called "PrintText_Thread" for peinting text on command prompt for n number of times. Create three threads and run them. Pari the text and n as parameter to the thread constructor. Example:

Vi. First thread prints "I am in Fy" to times.

ii. Second thread peints "I am in 84" 20 times.

iii. Third thread prints "I am in TY" so times.

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> AssestA Extra java

EXPERIMENT : No. class peint-Text Thread implements Runnable steing name; Thread tilor. inti, cnt: printText Thirad Csteing name, int ont) this name = name; A sthirt on the stands o ret morron o diely . of the new thread (this, name) and of minds System. out. println ("New Thrd: "+t), omortistark () public void run () paling a lolarid for Ci=1; i <= cnt; i++) System. out pointly C"It I am in "tname +": "+i); Thread sleep (1000); S catch CInterrupted Exception e) >3

Rystem.out.printle ("***" + name +" exiting.

***"). Teacher's Sign.: ___

```
class Assesset A Extra

public static void main Cstring args [])

new printread C"FY" 10);

new printread C"SY" 20);

new printread C"SY", 20);

new printread C"TY", 80);
```

entina pain

* Set B.

string to be searched. Search for the string in all test files in the current folder. Use a separate thread for each file. The result should display the filename, line number where the string is found.

Asseset Blijava

closs Fileklatcher extends Thread.

String Filename;

intrount = 0, rount Buffer = 0, count Line = 0.

String line Number = * ";

Buffered Reader br;

String input Search;

string line = ";

File Watcher Csteing filename, string such)

This filename = filename;

EXPERIMENT: inputSearch = srch . Public void runc) 184 br = new BuffereReader Cnew FileReader C" C:\IDemo \\"+ Filename)), while ((line = br. readline ())!=null) Steing words [] = line · split (" "),

For (string i: words) if (i.equals CinputSearch)) count ++; count Buffer ++; : F (count Buffer 80) countBuffer = 0; line Number + = countline + ",". briclose (). Teacher's Sign .: _

```
System.out.println C"In Thread Name = " + this +
"In File Name = " + filename + "In Flit Times found at = "
+ rount + "In Word Found at line no = " + line Number).
     catch (Exception e)
         e peint StackTrace ();
class Asseset 81
     public static void main (string airg [])
          inti
          File fl;
          File dir= new File ("C: // Demo");
           String Filer [] = dir list ();
            File Flatcher FWLJ = new FileHlatcher [files.length];
           for Ci=o; i = files length; i++)
                 Cfiles [i] · ends Hith (".java"))
                   fw[i] = new FileHatcher Cfiles (i], args [o]).
                   fulil . start ();
```

	EXPERIMENT: No.
2]	Define a thread to move a ball inside a panel
	Vancacy. The Ball chould be crobed up
	clicks on the start Button. Each ball should have
	a different color and vertical mailier
,	a different color and vertical position.
	is a state of the
. T. P	(- m v) 1 3 - 1 - person of more than sild me
10.5 10.0 10.0 10.0	(file tile to the set in the file to the
一 >	
	Asseset Bejava Mars Des man al las
	· To diget · i
	impost joua aut. *;
	impost javo aust event . *;
g da s	import javoz swing . *:
•	impost java·util·*.
	The sold of the sold of the
	clase AscesetBe extends I Frame implements Action Listenor
	3
y:	JPanel pnls, pnlz;
	JButton bi, bz;
90	was to the water that seems
	Ass 5 set B2()
	\$ 200 to 17 T
	setSize (600,600).
	setTitle ("lasss Set Be").
2019	setlocation (300,100);
REGAL	Teacher's Sign.:

```
pn.12 = new JPanel (1,
  pn12 · add (bi);
   pnlz.add (b2);
 bi add Action Listener Cthis);
 abz. addAction Listener Cthie);
 buadd Cpnl2 is South 1) its time of and
   set Befault Close Operation CJFrame . Extt-01/2-close).
  set Misible Ctrue);
  public void action Performed CAchon Event e)
     if Ceget source ()==bs)
   Ball b = new Ball Cpnls), bistart ();
                               is for our training
   if (e.getSource()==b2)
system.exit-(0);
                               tion, tooks one, it is pro-
                               Mar sevel- pani
  public static void main (string args [])
 new Assb 8et B2(7;
                                 Front rivia
                                    The policy
class Ball extends Thread
                                     Ass Seets
   Jeanel pni,
   int x=0, y=0, flg=0;
Color c;
                         11/16 223 - 1") old 11/13
                          setlorithm ( 300)
```

```
EXPERIMENT : No.
   Ball CJPanel pos)
      this pos = pos;
      int rc = random Integer (0, 25).
      int gc = randomInteger (0,255).

int bc = randomInteger (0,255).

c = new Color (rc, gc, bc).

x = randomInteger (10,550).
    public int randominteger (int min, int mox)
        Random rand = new Random ()
        int random Num = rand next Int (Cmax-min)
          +1)+min;
         return randomNom;
     public void draw ()
         Graphier g = por get Graphier ();
g. set Color (c);
g. filloval (x, y, 50, 50);
      void move ()
          Graphics g = pns. getGraphics ();
g. setXDR Mode (pns. getBackground ());
          g.setColor (c);
           g. Filloval (x, y, 50,50).
                                     Teacher's Sign.: _
```

```
if (flg ==0)
        y=y+10;
       if (y == 480)
                                                                                                                        Than Jone To the I L
               , tla = 1 ;
 elsc
                                                                                          and a series of the series of 
           y=y-10/2 no so when what one of the
                 if Cy==0) styr repolationsham add in
                        flg =0; (seption of the ment of
           g. filloud (x1y, co150);
        9 dispose () / was adulation de dispose (
     public woid run () as been not and
                 drow ();
                 for City
        move ();

sele sleep (100); fautant
        catch (Interrupted Exception e).
                         and peretien in a compone
             aroa ( 1987) of a consort a g
                                                                  1 150 2 1010 tr. 5
                                                              12 112 1 x 1 /0001/14 ...
```