```
Sab-2
I impost java. util. ";
   Public closs finst ?
          Public static void main (string[] asgs) ?
               Scannes gc = new scannes (system in);
                System. out. por int ("Enter a number");
                int number = schent Int();
                System.out-paintln ("you entered: " + number);
  Output's and stand they are there of work and are
   Enter a number : 8
    you entered 8
                  Flowshust Algorithm
stepi & Stant
sapa: Initialise vosiable numbra-
step 3 : Paint "Entra a number"
stepy: Read number
steps + Paint your Entered "+ number
. Step6'- Stop
2) Java program to check whether a number is Even or odd.
- import java . util . scanner;
  public class second ?
             pullic static void main (string[] orgs)
           int numi
           System.out. print (" Enter on Integer number: ");
           Scannes in = new Scannes (System. in)
            numz in-next Int ();
            if (hum % 2 = 20)
                 System.out-paintle (hum + " is an even number");
               system - out println (num + " is odd number );
```

```
output?
 Enter on integer numbers
2 is an even humbes
  Algorithm
stepli- stort
steps · Initilise variable num
skp3 & Read num
skp4: if (num %2 = = 07
         Print num + 10 even, go to step 6
Skp stoelse
         Paint num + is odd
Skp6 - Stop
3) Java program to print Right triongle stor plan.
   Public class Third ?
         Public static void main (straing[] angs) ?
            in + gow, column, n=8;
            for (now = o i now < n i now ++)
             for (column 20 i column 6 = 2000 i column +1)
               Sýstem.out. print (00 x ") i
              Sysem out - println();
   output:
                      music in new tart ()?
                    # # place to colons
```

courtes but population Chang & I in

```
Algorithm
sepliston
ckp = 1 Jailialize voniables 2000, column, h + 8
5 mp 31 for (2000 =0 ; 2000 cm; 2000++)
        fan (column 20 i column < 2 90 w i column ++)
          ? print" & "
        & Frint 'w"
       cointinue until condition foils
  Stepy - Stop
41 Java program to find outlient and Remainder
marblic class Founth &
          Public static void main (storing[] angs)
           int num1 = 15 : num2 = 2 ;
           int 9,40 = numilnumz:
           int sem = numl % hum 2 i
           Syskm.out. println ("ouotient is: "+ quo);
           3ystem out phintln ( * Remainder is: "+ sem);
     3
 8
                         entre verible my me ere
 output -
   Ouotiont: 7
                             - I mount - " First por
   Remainden = 1
  digosith m
 Stept. Stant
  Step 2: Initialize variable num 1 = 15, num 2 = 2, 840, sem
 skp3: quo = humilnum 2
  Step4 - sem enum 1 1. num 2
 Steps: Print "quotient: "+ quo
 super Dyinh " nemoinder " , nem
 SEP 7: Stop
```

```
5) Java program do Multiply 2 no. 5
- import jova. util. scannes;
  Public class Fifth &
      Public Static void main (string [ ] asgs)
        Scannen in a new Aconner ( Systemin) i
       System.out. point ("Ento first no: ");
       int nie in neut Int();
       System.out. paint ("Enten decond no: "1;
       7nt n2 = in. next Int();
       in+ pno = n1 * m;
       System out, Println ("out: "+ pro 7:
output!
 DENKA finst no 21 smile de loure a mare sui
   output - 2 : d abatum of I dilling too motege
digonithm
 Step 1: Stant
 Step 2 2 Initialise variable ni, na , pro
 sups. Imput = "Enks finst no = ", n,
                                       E Literations
                                      Benjarde 5 = 1
Stepa". Input 2 "Enka Second no " ina
Steps = 720 2 n1 + n2
Suple print a Product is + pho
Stept! stop
                             REPRESENTATIONS OF PRESE
```

many the Design of the said the

```
6 Swap two numbers
    Public class Six H
      Public Static void main (String () angs)
       flout first 21.20 f , second 21.45 f ;
       System. out. println (" -- Before Dwopping -- 7')
       system out paintln 1" First ho = " + first?;
       Syskm, out paintln ("second not "+ Second) i
      float temp · first i
      finst e decond;
      Second . Hump ;
      System. out println (" - - . After swopping -- ");
      System. out println ("Jisst no = " + first);
      Syskm. out. paintly ("second no = " + second);
 out put '-- Defore owapping --
         fisst no = S
         second no = 8
        -- After Dwapping --
           7:35+ MO28
          Decond no = 5
 Algorithm
 2 tepi; &tast
 slepz: gritilise vosicille first = 1.20 f. second = 2.45 f
 steps: Paint "First no = " + first
 Supul paint " decond no " + decond
 steps & Jemp - Pinst
         liast - becond
         Becond + lemp
 SKPE'+ Paint " - - Alks awopping -- "
Step 7 - Paint " Flast no : " + flast
 & tep 8 - Paint " Se lond no! " + Second
 2 kp 9 - Stop
```

```
C:\Windows\System32\cmd.e
Microsoft Windows [Version 10.0.22631.3155]
(c) Microsoft Corporation. All rights reserved.
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac First.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java First
Abhishek Gouda H
1BM22CS006
Enter a number : 8
You entered: 8
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac Second.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java Second
Abhishek gouda 1BM22CS006
Enter an Integer: 10
10 is even
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac Third.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java Third
Abhishek gouda 1BM22CS006
Enter number of rows : 5
* *
* * *
* * * *
* * * * *
* * * * * *
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac Fourth.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java Fourth
Abhishek gouda 1BM22CS006
Ouotient is 7
Remainder is 1
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac Fifth.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java Fifth
Abhishek gouda 1BM22CS006
Enter 1st number
10
Enter 2nd number
20
Output: 200
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>javac Sixth.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 1>java Sixth
Abhishek gouda 1BM22CS006
--Before swap--
First number = 1.2
Second nmber = 2.45
--After swap--
```

```
21- Quadgatic Equation
                                             22-12-23
Twite a Jave program that paints all seal solutions to the quality
equation ans str scoo
imposit gava. util * ;
 (1035 9 Roots 8
    rublic static void main (string angs[]) ?
           a, b, c, d; 91, 92;
           System. Out. Paint (" En 44 the well of a: ");
            Scannes Sc = new Scanner (system in );
            a 2 Sc. neut Int ();
            System. out. psint (" En 42 the coeff of b:");
            b= sc. next Int();
            System. out. praint ("En un the coell of c:");
           if ( a = = 0) }
               system. out-point (" Invalid inputs ");
           else # &
             d = b + b - 4 + a + c;
             16 (d >0) ?
                 91 = (-b+d)/2+a; (b+math.599+(d))/(2+a)
                92 2 (-b-d) 12 a & - 2 = math- sent (d) (2 a);
    System. out. Ps int In (" Roots one neal and
                 R1: + 91 + "R2: + 912);
            else if (d < 0) ?
                 9,3 - 6/2 * a i
       922 d/2 = a; math- 52 9+ (d) /2 + a;
             System out printly (" Rooks are Imaginary and
             R1:"+91+ (92)+"" + " R2:"+91 +
              "" + (92) + ";");
```

```
else of [d==0]
          91 = 92 = - U/2 a 's
          System. out paintln ("Roots une equal
          R1= R2 2" +91);
 Algonishm +
Step 2: Stept
super initilise vonables, a, vic, d, 9,, 9,2 ;
Sup 3 h B. Paint Enka the values of a, b, c
Step 44 Read a, b, c
sups 1 if (a==0)
            Print Invalled inputs
           goto step 9
 Sup 6 + Clsc
         if (d>0)
      Print Books are neal
           91= (= b+d) /e=a; (-b+mah.sen+(d1)/6 = a)
           Print 91, 92
Step 7: else of (d < 0)
             Print Proots one Imaginary
               9112/06/200
              $ d/2 a; siz= (muh. 59 A + (d)) /2 " a;
             Print Swot 1 = 91 + 912";"
                   nout 2 = 91 = 92"1"
sup & else if (d = 20)
          9112 9122 - 4/2401;
           paint Roots are equal and
                  RI = R2 = +(911);
Skp" Stop
```

Zlow chont: Stont Initilise vosiables a, bicid sissa Paint Enter the values of a, bec if (a = = 0) 79 ve Print Sovalid Inputs Jaue if (d > 0) Paint Roots one equal False カーマ(しょうか)/2+01 92: (-レ型が)/2+ は; Pain 1 9, 192 736 (d20) print Rooks are imayinal talle 9 2 2 SHAMY 2 4 a Print 91 - A1 + 72 1 PRIN - A2 2 81 - 92'1) El31 14 79 4 E 1==0 912922-V/2+a Julse Print Roots are equal and R12 R2 = +(91) Stop

Enka the coefficients a . L. ( : 1 2 1

Rook one Equal and Roots and -1.0

Enka the coefficients a, L. ( : 3 2 1

Roots are Smaginary

En 49 the coefficients a, b, 6:164

Roots one Real and Root1:-0.763932

Root2:-5.236068

Enter the coefficients a, u, 6:014
Invalid Inputs

Jan 10

```
+
   C:\Windows\System32\cmd.e
Microsoft Windows [Version 10.0.22631.3155]
(c) Microsoft Corporation. All rights reserved.
C:\Users\abhig\OneDrive\Desktop\javaa\week 2>javac Quad.java
C:\Users\abhig\OneDrive\Desktop\javaa\week 2>java Quad
Abhishek Gouda
                1BM22CS006
Enter co-efficients
1 2 1
roots are equal
r = -1.0
C:\Users\abhig\OneDrive\Desktop\javaa\week 2>java Quad
Abhishek Gouda 1BM22CS006
Enter co-efficients
3 2 1
roots are imaginary
r1 = 0.0
r2 = 0.47140452079103173(i)
C:\Users\abhig\OneDrive\Desktop\javaa\week 2>
```

```
2ab-2
          SGPA-Calculaton
                              Later assets as a proper later
import jova will scanner ;
class student $
    String usn:
    string name;
    intil a redits = new intest;
    in tIJ manks = new int [4] /
    Public void accept Debilo (7 &
         Scanner scanner a new scanner (system in)
        System out print ("Enter USN: 17;
          ans a (double) me grade sum I Educate hold conditi
         USN & Scanner nextline (7;
        segstem . out . print ( 25 n k 22 Name: ");
         name = scanfia next Linelli
                                        Public Class SAPA (
        System.out. paintln ("Enks details for each subject: \n")
        for (int 120.1 ( chedits length 11++) }
              sysum.out. paint (" In Enka Caidits for subject" +
              (i+1) + ": "7;
                           Stadeof accordocalls ()
              Chedits [1] = Scanner nent Intl7;
        System. out. grint ("Enka monks for Subject" + (it) +
       SARIN ON BURY (" ONE " SENGUM - FRE )!
      munustije stanneg next Int();
          Aconnes coose (1;
                      Make and American Committee the
     Public double calculates GPAL) ?
         it total credits 26;
          int weighted sum 20;
          double ans;
```

```
for lintize; is condite length istall 1900
        lotal cardils as enrolls [: ] ;
       Int gande points i
        grode foints + (markstillio) +11
        if ( grode points = = 11) {
               grade Points 210; to select a struct a struct
        clase if (grade points = 4) } last date and a second of
             grade Points 20; 3 1) elas a same was
        weighted sum or grade points & chedits [1]
                        SHIPM OUT MAINT ( SHIPM USIN:
      ans o (double) weighted Sum I (double) total (medits;
                            in Cariffian diamons & war
       netagn ons;
                     sustem contignint (Sura Nome:
8
Public class sana {
     Pullic Static void main (string [] 0295) {
          Scannich sc . new Scanner (syskin in)
    student & Ludent & new student(1);
          Student. acceptoepoils ();
       System out . Println (" in Student Details : ");
          System . Out. grint In ("Uspy: " + student- usn )i
          System. out printla l'Nome i "+ student name) i
          double sapa a student culculate sepali:
          System.out paint (" In sapa : " + sapa);
         Scanner . close (7)
```

Step1: Stond

supe: initializing variables usn, name, monks, exidits

sups: enknder (1; function call

sup 4: Input usn, name , manks, caedils

steps ! display dell' function call

Step 6: Paint (usn)

Supri Print (name)

SNIS: BON (120 ; ics i i++)
{ paint (mosks)

Maint (chidils)

sup 9: sgpa() function call

sup 10: inilializing vonialles g.v.,

sup 11:- for a = 0; ic8; is )

9 = 0 v = ( medits [i] \* ( monks [i] ) 10 ) + 1)

92 2 3 9 ;

sup 12: Print (9/20)

SKPII'. EXO.

Zlow chants ( Suput ( none) Saput USW NO BENEFICIAL pall finding call yes Tally was all a 30px 2 ( chdils) display dot() Immin 2 (UEN) NO / Parat Imones 1 588017 < 1 1 ( a b) 12128 dits (17 & 70 mass (17 610) +1)

```
gutput,
 Enka USN: 16m 22 65006
 Enka nome + Abhishen
 En xx the details of each student :
 Enka caedite for subject 2:
 4
Enka Mosks of Subject 1!
91
Enka caedits for subject 2 ?
H
Enka Monns of Subject 2:
39
Enkl Exedit for subject 3:
4
    manks for sutject 3:
Enka
99
Enha Enedits for subject 4:
 3
     cardite for subject 4:
9nks
78
     chedits for subject 5!
Enk 12
 3
       maghs
      (ardis for subject 5:
Enter
79
      Cardits for subject 6 !
Enks
 1
     conditions for subject 6:
Enles
100
Enks (redits for subject 7:
 1
Enter marks for subject 7:
```

70

Enks reedits for subject 8 ! Enter montes for subjet 8: 56 2 Ludent de lails: USn: 16m22csoob Nome : Abbishel SEPA! 4. 23009 quette for saligate 3; PARKE for Section 3 : resedite for suitely it in the soline of it can be subject s: 9 410 may 10 4 4 4 6 1 1 2 11/119 - 60/ 31 post And in for while out of

C:\Windows\System32\cmd.e + | ~ Microsoft Windows [Version 10.0.22631.3155] (c) Microsoft Corporation. All rights reserved. C:\Users\abhig\OneDrive\Desktop\javaa\week 3>javac Sgpa.java C:\Users\abhig\OneDrive\Desktop\javaa\week 3>java Sgpa Abhishek Gouda 1BM22CS006 Student name : Abhi USN : 1BM22cs006 Course 1 credit and marks 3 60 Course 2 credit and marks 2 70 Course 3 credit and marks 1 100 Course 4 credit and marks 4 91 Course 5 credit and marks 4 89 Course 6 credit and marks 2 78 Course 7 credit and marks 3 99 Course 8 credit and marks 4 88 Abhi 1BM22cs006 SGPA : 8.91304347826087

```
Lab-$3 - 1 Committed gode-of godes = 1616.
1) Dails of a Book & Input and display of the
  details of book using tostoring ()
                        side of bedien a doile
  impost java.util. +;
                                     3 HELLSH
 class Books &
                                  Sololie closs Ralo [
       staing name;
       string author is a mism blow sitales silver
       double price;
    Public Books (String name: String author)
         double price int numpages ) ? 100%
                    MAINT NO 60. NOW 1 7 N+ ()
        this name a name i
         this author = guthor ?
         this patte e paile i
        this num-pages a num pages is
   void setDetails ( string name , string author,
double price in the number of state
        this nama aname !
      this paice a paice; stantage, the walles
        this author a outhor?
        this num pages 2 num pages it
      Eysman out paintly ( Para dumas: "):
  void get Details ()
     Stoing 5 2 Book ! " I name + "by au thos!" - ou hors +
      . " with pages :" + num-pages + " is of poice : " + poice;
  System. out. point in Ls);
     3 (1) the E twon . De of segues amon the
     belief a new Books ( name , author , gaine,
```

```
Public string to string tostring () {
       Staing Sa Book 1 + name + "by author in
        author +" with poges " + numpages + "
        is of pages " & price i
                                   to fit was favo to fine
      netuan Si
                                        SEE BOOKS E
                                    string home:
Public class Data {
       Public Static vold main (string [] angs ) ?
          Scanner sca new Scanner ( System . in)
         System. out. paintln (" Enten the total number
                   public Books ( Staing name , Staing
          of Books ");

int n = 6c. next Int ();
           Book 13 book 2 new Book En 37
            Books bl J z new Books [n];
           Books
        for (int i=0; i <n; i+1) {
               Scannes - nentline jete ) aliatolitée bien
                 se nearly met )
          System. out. Println (" Enten the details of Book !
                 + (1+1) 1 3 MONS SMON 35 (1
           System. out . paintln ( Entra name : ")
               String nume 2 Scommannextline();
            System. out. Println (" Enter author: ");
               String author - Scores nextline();
            System. out. printly (" Entr price:"):
       States 8/
                double palce = sc. nent Pouble ();
             System fout . println ("Enka no of pages:");
                 int num-pages = sc. next Int();
              V(:7 = new Books (name, author, price)
                            num-pages);
```

system.out. println ("In Delails of the Books 1" 7; for Cint 1 = 0 i ian (1++) & and man and sales system out println ("In Rook"+ (1+1) + " Details" + B[i] . tostning() ) i wood to make the POSISMAN Du Hazz L b D D Algorithmis; 200 7 2000 7 000 step1 + Stast Spendalolls of Book c stepet class Books Initilize name , author , poils , num-payes step 3'e (seata constructor books and initilise suput method set Detoils and pass strings name, author , pails , num - pages Stepst method get Details and paint string s > Rook + name + by author + author + with poges + num-pages + i's of price " + Price. Skp 6 + method to shring () Print so Book +name + by author +author + with pages + nom-payes + is of paice + paire skp 7'r class Data Steps to paint Enter the total namber of Books step 91 - Read n Sup cot Read name , author , paica, nod pages Supli's Parint Details sup 121/2 End

S) Output! Late Charles to be to be any Enks the number of books William some der the Call gives a Clotte September Enks the details of Book 2 Commence - 5139 name : aaa Author & bub Naice + 100 No of poget : 292 Enho the details of Rook 2 24000 0000 home see out of the roll of some of the Author: ddd see a companier Books and billing 88110 -111 No of pages 2077 2 2000 bus sticked 400 bearing OUTER , porce , norma pages Display! memod for Leville and part Essing 5 & Rock + none Deboils of Book 2 on these of with pages + non- fugle aaa) ile of poils: \* & price. 666 100 Europe to smelled to shally () 121 Poral 5 - 600k - rume + by comes + ouses + & chills of Book & - and was a supply with ccc expar class sala of old and he has all a south a south the same bear " " 4 posts wells Say 107 Read name , outlos , pares , no a sup 11 From Belaite

Microsoft Windows [Version 10.0.22631.3155]
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C:\Users\abhig\OneDrive\Desktop\javaa\week 4\lab 3>javac Program3.java

C:\Users\abhig\OneDrive\Desktop\javaa\week 4\lab 3>java Program3

Abhishek Gouda 1BM22CS006

Book Details
Name=Why Bharath Matters, Author=Dr S Jaishankar, Price=350.0, numPages=500

Book Details
Name=Introduction to Algorithm, Author=Alan Jhonson, Price=556.47, numPages=1235

C:\Windows\System32\cmd.e

```
as Develop a Jova program de create an abstract class
  to find the area of Rectorgle, Iniongle and
  circle.
import jova. util. +; Lab=4]
 abstract doss Shape &
  O to what as this signal sold come a signal of the
       alsmoch void paint Asea()
  is the our prints of the see has and height
  class Rectangle extends shape ?
    Rectongla (in the int ba) f
                    in new to net 1 1 ;
         a 2 l;
                       to be grain thank () }
Sys Km. out pointly (" a for the sidens of a cight ");
    Public void print Anca () }
           System. out. psintin (" Asca of sectongle = "+ l ba);
     2
 close Islangla extends shape ?
          Jaiongla (int ba , int h) {
        election of deboth has deposed to const
           beh'
  Public void print Ascoll & ....
        double 0914 205 40 + bi
        Syskmo outrops inlln (" daca of Jaiongle" + ocea);
                      done of a delarge 1295, o
    3
                        so to the section of a circle
  class warde extends shape ?
          Ciaclo (int a) ?
  Public void prin +Asra () {
          double onea 23.14 +9, +9, 2
         System out paintle l'Asia of the circle "+ care);
```

```
- Class Moin' & a no ward of mangons and a young
          public static void main (staing () angs)?
          Scannes sa e new Scannes (System. in);
          Sconnics out paintly ("l.
          System out println leanth the sides of a Rectongle
             nec. Print Area ();
em. out. printh
          Rectangle sec inew Rectangle ( in sc. nent 3n+ 1),
          System. out. println ("Entra the basa and height
            of a priangle "19"; ending alguarante and
            Jaiongle this znew friangle (se nent Intl),
                   in nentzn+() );
            tai. Paint Agra ();
      Syskm.out println ("Entys the nodius of a cinde");
Cincle Cin = new Cincle (Sc. nent Int());

(in. print Area ())
                             closs Brionple on Hends Shape &
                     Springle (int variath) ?
   Output!
   Enka the length and brackth of a Prectough '.
      11 13
     Area of Lectorgle: 143. 07 Mostal said Word ald Me
     Enha of the base and height of a briongle!
: ( 0122 +4'50 gnotal fo asea ) allalaged 00 - my 8 82
     Anca of a friangle: 493.0
     Enka the Godius of aciacle
                             Conde calends Shape !
     Anca of a Ciacle: 30975.1400 a dais about
                               Public void paid thera [] &
                     double one = 3.14 20 = 5 ;
            Stylen out-pasodin (" ware of the concle
```

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C:\Users\abhig\OneDrive\Desktop\javaa\week 4\lab 4>javac Program4.java

C:\Users\abhig\OneDrive\Desktop\javaa\week 4\lab 4>java Program4

Abhishek Gouda 1BM22CS006

Rectangle area : 15.0

Triangle area : 25.0

Circle area : 153.86

C:\Users\abhig\OneDrive\Desktop\javaa\week 4\lab 4>

```
Week = 5
I program to use get and set method.
  public class cont ?
     11 Private members
      paivate Staing item Nome i
      paivak int paire;
     paiva k int quatity i
   11 Finst setter me mod
   Public void set I tem Nome (staing item Nome);
          this . Item Nome i
    Il finst getter method
    Public Staing get Item Nome () {
      netuan itm Nome;
  11 Second setter method
  public void set Price (int price) ?
        this paile = paile;
 11 second getter method
 Public int get paire() 9
     actuan paile;
Public Static void main (51.2 ing[) asgs)?
       Cast Obj = new Cost();
         obj. Setzlem Nome ("BuHen") ;
         byskm rout. printin ("The defoils we have set
                age : ");
         System. out. printlh (obj. get Item Nome () "In"
                obs-getphila ());
```

Outputs The details we set are Butter 50 CONTRACTOR MINE

```
2) Bank 2290 890m 3ab= 5
 impost java util +;
 class Account &
    staing cust-nome;
    int aceno;
    String accitype:
    double bolonie;
    Public Account (string cust-name, int aleno,
         String occupe.) ?
         this . cust-nome = cust-nome
         th 15 - all no = allno;
        this-acc - type = acc - type;
        this . valante 20;
  Public void display Ball) ?
      System. out. Phintln ("Allount number" "+ aceno);
     System. out println (" austomes name: " + accest-name);
     Syskm.out. psintin 1" Account type:" + occlype);
    System. out. psintlu " Bolonie: " + bolonie);
 3
class saving entends Account {
       double interest - nak;
      Savings (String cust-name, int accord) ?
         Syper (cost-name , ace no, "savings");
         this interest - sak 20.5;
   Public void Depoist Interest ()?
           Valance + = balance * inlesest - sale?
          System, out. Println ("compound Interest deposited
    applied . Cussent balance: "+ valance);
   Public void compoundantesest (double initial-and)
E
    double ci = initio Lamt + Math. Pow((1+ in Hos) + Set ), time
               - instiul - am + i
          valance + = ci i
```

```
System. out- printing" Compound intrest applied
                          + balonis)
        cument balonce : "
   Publica void withdrawell?
     System. out. psintln ("Entre the amount to be
                 Grom your saving account : ")?
       with drown
     double glass. next Double (1);
         System . out. print In (" In Sufficient Balance!").
      els6 9
         System out paint In (" you have with drawn
          Valance - Volance - 21 7
        Systm. out. paint in 1" your consent balance is!".
                    stolantel'
     2
Class Euggent enknds Account ?
      double min-valonic, sisvile-chasge
     cument (string cust-name, int accord) ?
        Suprer (cust home, aluno, "cument") j
         this. min-balance = Sooi
         this. service-change = 20
     Pullic void withdrawl ( double out ) ?
          if (valonie - cm+> min-volonie) ?
            balance - = amt;
          System. out println ("with dead successfull.
         current valonic ; '+ balonce);
      else ?
```

```
gyskm. out paintly I'willdrowl not possible
       que se insufficient bolonie ");
pallic void service (hosga () }
     if (bolonie 2 min-bolonie) }
          balance - = scavice - change
         System. Out printal "scavice change imposed.
      (ushent balance : " + balance );
& Public void geting() ?
  Syskm. out . print Inlin En 48 the amount
                                      for which theque
  has do le issued "li
   e = Sc. next Double ();
  Public void cashche() }
      if (e > lalance)
      System. out. printly ("cheque bounced!");
       System. out println (" via easting acheque you have
        windrawn "te);
      bolonic 2 balanik = e i
         Syskm. out - paintln (" cussent bolonic is: "+ bol
        if ( balonic < 3000-) min-balance)
           halance = balance -100;
          System.out. phinIn ("your bolonic is below thegoe
           Lalon(1), a penalty is applied "? i
           Sysum. out printly your current bulonce
                is " I balonie);
```

```
Public class Ab ?
       Public static void main (string ( ) ongs) ?
             Sconnes in onew Sconnes ( system. in ) ;
            System. out printle ("choose account type:
           System . out. prin In (" 1. Savings");
           system. out paintln ("2, Guarent");
          System out printly (" Entr choice 100 2");
          int choice 2 in nent In 11);
          Systemout paintly ("En 42 Cus lower home :"
          String Cust-nome = in. next 1);
          system. out. printly ("Enus account number:");
          int oceno = in. nent Int();
          if (choice == 1) ?
              saving savAcc=new Saving (cust-name, circus);
                   System.out. println ("En Ha initial balonce");
               double initial Lalance 2 in neuthouble ();
               Suv Acc. balance = initial balance;
              System. out. println ( For withdraw ( ") ;
               Sav. Acc -withdrawl (and) i
                "system.out. paintln ("Enka interest 2016:");
                double interist_Auk = in nent Double () ;
                SOUACE. in 4+13h-90k ~ in 4+3h- nak;
                Sav Aca - display Ball 1
                System-out. println ("Enkir time (in years)
               to calculak compount inkest :"1:
                int time = in nextInfli
    Gav Acc. compount Inlesest (initiate alone I time);
               Sav Accordisplay Balli;
         HELT
```

· Output choose arount type 1. savings 2 cuasen 2 EN HA CUS TO MEA- nome: Abhi En HA GUOVAL NUM LET : 001 En Kr initial Lalonce: 10000 Enka w'14 draw L amount ? 1000 cuspent valence : 900 b entry (tima : 2 mass) will any the more selected Current Lolonia: 9658 Enka nome ! A bhí num + 13 2001 balance : 9658 egythe in energy [3 - new 24 (62) 32.5176 Class Entrant collects Sugart ?

To the comment of the

Microsoft Windows [Version 10.0.22631.3155] (c) Microsoft Corporation. All rights reserved.

C:\Users\abhig\OneDrive\Desktop\javaa\week 5>javac Bank.java

C:\Users\abhig\OneDrive\Desktop\javaa\week 5>java Bank

Abhishek Gouda 1BM22CS006

Deposit of 1000.0 Successful

New balance : 51000.0

Withdrawal of 2000.0 Successful

New balance : 49000.0

Deposit of 2041.6666666666715 Successful

New balance: 51041.6666666667

The balance of acc no. 3514213 is 51041.66666666667

Deposit of 5000.0 Successful

New balance : 15000.0

Withdrawal of 8000.0 Successful

New balance: 7000.0

The balance of acc no. 6854665 is 7000.0

C:\Users\abhig\OneDrive\Desktop\javaa\week 5>

```
6) Create package (IE, 13EE and import the
    package on main . Java file,
   Package CIE;
       Import jova. util. Scannen :
      Public class Student ?
            Public int son?
            Paulic String wan ;
           Publis Staing name's
           Pablic void accept ()
              Scanner Scanner (system-in):
              System . out paintln (" En Ha Usn: ");
             usn 2 for sc. nent();
              system out paint ("En us home = ");
              nome = sc. next() '.
              System.out. print ("Entra sem: 1);
              sem » sc . nenf() ;
      2
   Public class Internal 9
           Mublic int mushes () = new int (5);
    3
  3.
Pachage SEE;
 import CIE student i
 Bublic class Enternal entends Student ?
          int cut 2 new intest;
```

```
Mainijava
import java util, +;
impont. SEE.
1 m pool C 2 E . +
pullia class main &
         Public static void main (strings) ongs 79
             int final [] = new in 1 (57)
             Scannin in a new Scannin (System in)
            System . Out - print In (" En Ha n = "1)
             int no in nent Int();
             SEE. Enkanal end [] = new SEE. ExhanalEn]
             CIE. Inkanol in [] = new CIE. Inkanol En];
           for lint 120 ; ich ; i+)?
              end lid z new SEE. En Honal ();
              in [; ] = new (IE. In Hanal ();
             System out paintln (" En Ma deboils of" + (i+1));
              Enth. Syskm.out. println (" Enth internal and
               End Eij : accept(1's
                  En HAnal monks");
                for (inf j 20 ij 45 ij ++) {
                       System. out . pain th ("(ourse"+ (j+1));
                       in (7). mosts (j) = in next Intil);
                       End [i]. ext[j] = in . next Int();
                        final (i) 2 in (i) morus(i) +
                                      endris.entsi7;
               14
              Eyskm. out. println (" Final monks &
                 + end sid. nomel j
               for Cint k 20 ; K < 5 ix ++1 ?
                      Systemout. paintle ("Course"
                        ofk+1) + M= "+final (N))
                3
             3
```

outpul: Ente nol Enha details of 1 Enha Usn 2 15 Enles nome = Rom Enha in Hanal Enhand monks Course IV and stand of the grand on my see 23 89 in the manufaction CH3 march 23 390 wine & Class Vonence . 323 (0436 3 そくみんに はなる からますりの 78 cours e 5 · (11-39 90 000 90 Million 100 miles bings much End Ell sengeros Cours 7 = 56 Course 1 = 56 Course 2 2 16 COURSE 4 = 62 Cours C 5 2 62 2 stre Whente Dalasta Contact + cod siz none) i fortist kees Hes Theel System out. printle Coores " (CA) harry and a first was

```
C:\Users\arbaa\Desktop\CSO >java FinalMarks
Enter n:
1
Enter details for student 1
Enter USN, Name, and Semester:
008
Abhishek
3
Enter im and sm of subject 1
15
90
Enter im and sm of subject 2
36
92
Enter im and sm of subject 3
40
99
Enter im and sm of subject 4
34
98
Enter im and sm of subject 5
35
90
Final marks of Abhishek
Subject 1 = 105
Subject 2 = 128
Subject 3 = 139
Subject 4 = 132
Subject 5 = 125
```

C:\Users\arbaa\Desktop\CSO >javac FinalMarks.java

```
Magaam 7 -
while a program that demonstrate handling of exception
in a in heritance but correct a last closs's called
 "Ja ther" and derived closs called son which extends
 Me Last Class.
 In Jahin closs, in plement a constructor which takes
  the age and throws the enception wrong Agel when
  In pulage 20. In sundos implement a constitutor
  that case both la ther and sor's age and
  shaows an exception if son's age is >= Jathinoge
   class Wrong Age entends Exception ?
          Dublic Wordy Age () }
            g sop ("Invalid og i") i
                        class James &
  int Fage ;
    Public void Jathen (int age) throws wrongAge
                                         A 21017
      if lage < 201 % some how situate still so
          new throw wrong Age();
         3 182 102) 402 WAY = 15 405
       . else ?
          Sop ("valid age") i
          See 2 7 6 13 7 " 2 2 405 40 1 7 405
          Thog 2
         Fage = age i
      Dublic int get agest 1 ?
              noturn Joge;
```

```
endends Father ?
 Class Son
Public son ( int aget , int ages) & throws wrong Dec
         int sage
   is super (ageF) i
    if (ager & ages)?
          hard wrong Agels?
 clse &
       sor (" Valid age") i
     Sage a ages;
     Public int getages () {
        Actuan Sage i
    as the sold do then (int ege) throws wrong ABC
Class A &
  Public Static void main (String 7: 049579
  toy? Jather 712 new Father (SOXi
     Son SI = new Son (50, 25);
     SOP (" Father age is 1/+ 71.get ageF());
     Sopl" # son age is" + St.get ages())i
   9 4
  cath (wrong Age e) ?
       SOP ( e) 1
    3
                     Petro it 812 09577 ?
```

Algosi Hmiz 1299 Silver Supl & Stont super closs wrong Age onkinds Exception Constructor wrong Agel) Print Invalid age. super class futher, initilize force construitor Jakir (age) throws wrong Age. SKP3 - 16 (090 <=0) throw exception Print valid age sup a'- get aga Famin() i Skp6's Class Son enknds James Initilize Sage Supa Constructor son (aget , ages) Amonous evenong Age · Father constructor (ageF) sups: if (age = < ages) ? throug throw exception; Stepq + else. Print valid age Step 10 5 get age sun (); Step 11%. class A imain Step 12 '+ thy & obj AL for Jumer class ol; \$1 for son class · Print" Jutter age is Fage i Paint "Son age is Sage"

Supra Stop.

catch l'exception el

Output. valled Age valid by a mentioned some and green do volid Age commercial when party James age is so . The bloom to Son og 15 25 16.02.24 get age Febral 9: class for then is Sames LONDERD SON ( O SOF , OSES) THERE WAS INSTRUMENT · Jather constructor (ager) design three conflish 73 12 valid 03 c the lite closs A amoin oli At for down class 00; 58 for Sun class cash lengthing

Microsoft Windows [Version 10.0.22631.3155] (c) Microsoft Corporation. All rights reserved. C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>javac FatherSon.java C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>java FatherSon Abhishek Gouda 1BM22CS006 Father's Age : 50 Son's Age : -10 WrongAge: Son's Age is negative C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>javac FatherSon.java C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>java FatherSon Abhishek Gouda 1BM22CS006 Father's Age : -20 Son's Age: 10 WrongAge: Father's Age is negative C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>javac FatherSon.java C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>java FatherSon Abhishek Gouda 1BM22CS006 Father's Age : 20 Son's Age: 50 WrongAge: Son's Age should be less than Father's Age

C:\Users\abhig\OneDrive\Desktop\javaa\week 7\lab 7>

C:\Windows\System32\cmd.e

Program 8 White a Program which could not threads one Throws diaplosing BMS college of engineering ones Every Ion seconds and one was displaying the once wary two seconds. Public dos Hain 8 Static class Disploy8MS extends thalad @ overgide Public void sun() { int 1= 1; while ( 125) 1 system. out. Println (" BMS colleged Enginesig) try & thread . Sleep (10000); catch (Intern opted greep 1 bn e) ? e. Print Stack Trace 3 Eles class Display CSE Enlands Thomad ? a overside Paulis void sun()? inti-0; while (for) ? System-out prinstn ("CSE"); thread - Sleep (200); catch (Inlannepterception e) 1 e. Printstack Throw() ;

```
Public Static Void main
    Public class Main ?
                         A CO A SOLD ON M.
     Public Statia void main (String ) orgs)
       Display BMS · dist = new DisplayBMS() i
       Display Bes ()
          distiti
       Display (512 dis 2 = new Display (5E(1)
         display dist. Shortli
                dis 2 Stort() ;
and Algorithm:
 supl's stant
 styr + class Display Bms entends thread
        method run(), inililize is1
          while (i < 5)
            paint BMS college of enginnesing
               thread -sleepl 10 secl i
           catch (Intensepted Enceptione) &
                   print except ion
              displayese extends throad
 SHP3 + class
            mckod orun(1, inililize 1 = 1
               while (iezs).
                  Print (SE
                  try & shored steep ( 2 sec) i
                 catch ( 9- Harapted Euception e) 3
                         e. P. Print enception
  Stepy = class Main
          initilize object ,
               display BMS as dist
         initilize objut
```

displayest as 1is 2

dis1.5709+(7)

stepst stop

Output:

BMS college of Engineer in &

CSE

CSE

BMs college of enginessing

CSIZ

CS 12

BMS colleged Engineering

CSFZ

CSE

BMS college of Engineering

CSE

CS F2

BMS college of Engineesing

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1112

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displayor as place

C:\Windows\System32\cmd.e

Lab-9 29) Write a program that cuentre a usen intoface to yenfom integer divisions. The user envas two numbers in the tent fields , Nems and Nums, The division of Numb or Nume were not an is Afois displayed in the Result field when the Divide button is eliched. If numl on Nume were holon in kg " , the group would throw an as the metic Exception Display the exception is a message diolog bou. Sur to variety a property with the other order import Javan. swing + ; import java : awt. + ; import java awt. event . + i Public closs Swing Demo & swing Demolo ? JFrame J/Am = new JFrame ("Divider App"); Ifam. set Defoult (losa Operation ( JF name. EXIT\_ ON-CLOSE); j form- set size (275,150) i Jealel jeab = new Jeabel ( Enter the divider and dividentil) J Text Field as H = new JAPlant JTent Field (8) ; JTONE Field tith a new JTENT Field (8) ; JBUHon button = new JButton ("calculate"); Jeatel enn enew Jeobell) Thatel alabanew Thatel (7" Jeacel blob = new Jealel(7) Travel anslow a new Trabell's I fam add (ess) s ifam - add (ilab) i ifnm.odd(ajth) idam - add (bjob); Jahn add (button); Stam-add ( Wat ); Jlam add (Vlab) i ifam add (anslab);

```
Action Listenen I = new pation Listenes () [
   Public void action Performed (Action Event out) 1
  Sustantent out pointly ( Action event from
   a fort field "?;
   was diployed in the tenath them has been the grade
       ajth. add Action Lischenes (I);
        bjH. add Action Listener (I);
        button, add Action Listenes (new Action Listenes () 9
             Public void action performed (Action Event evt) ;
                toy & their control to
                 int a = Integer, moss Int (ojth. get Tent())
                 int be Intigen pas Int ( with get Tenta);
                int ons = a/bi
                alab. Set Tent ("In Az" +a) ;
                blab. set Tent ("In B=" + b);
                anslab. sct Tint (" In Ans = " + ans);
 g catch (Number Format Enleption e) 3
                  alab. set Tend ("");
                  blab. set Tent ("");
              ans146. set Tent ("1) ]
               ens. set Tent (Hut: "En un only Integer !");
            alabecetTent [""] i
                 blab . Set Tent (" "1;
                 anslow. Set Tent (" ");
                 enn - set Tent (11 B should be NON 3001")
        3) ;
        ifam cet Visible (taye);
                               from all ( Wall ?
```

10 4 10 14 1 Ans 1402 ..

Public static void main (string oras []) ?

Swing utilities . Involve later (new Runnetlel) ?

Public void orun() ?

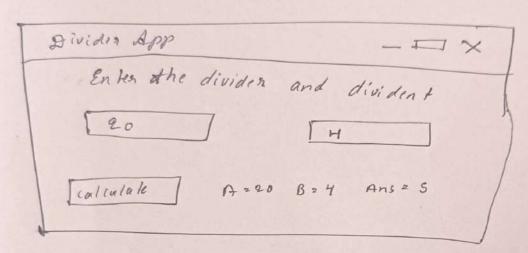
new Swing Demo();

31;

3

3

output)



23/2

Junctions ?

Thatel: object object that can display either text to an image.

Action listenes: The listenes, interface for section g ation events Action event: - d semantic event which indicates that a component defined action accorded occurred.

Set Tent (n'= Defines me single line of dent set visible Cu) = shows on hides this window depending on the value of pasameter to

invokelation a so updak or perform any tost on Event dispatcher thread asynch son ously

