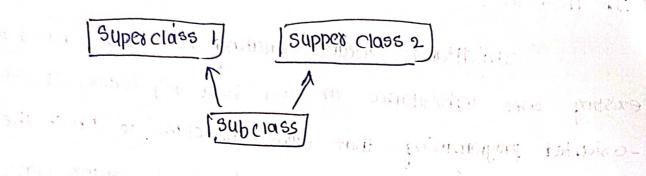
Classia (Classia) (Classia) (Classia) (Classia)

Class c

4. Multiple Inheritance: A sænaris where a class inherit properties and methods from more than one sy



5. Hybrid Inheritance; It is a combination of two or more type of inheritance. Dealt and Description

Grand father) Single -> Single inheritance [Father] | Son | Daughter | Hemachical Inheritance tybrid interitance

Single Inhéritance a mart mars le com ai deside

Class A {

INE Q;

system.out. println ("a = "+a);

class B extends A g

Int b;

void display BO f

System.out-print (1b="+b), 33

```
public class single inheritance
                                       Enample &
               public static void main (string [] args) {
          B. obj = new();
             obj. 9 = 20;
                              A polyaib bilen siegin
              06j. b = 30;
                obs: display A (); Indesh sollen
              Obj: display B (); " (place shick
          33
output: a=20, b=30
                             Class Animout &
Multilevel Inheritance.
                         void eath of
 System - cut. print in [" mis anny Anissolis
         public void display A () of
          System out printen (Inside display A").
     44
                                y wid booker ?
      Class B entends A for tong the contage
           public void display BC) &
             system. out println (" Inside display ").
    44
    class c extends B. () worth live
              Public void display B() &
               system out printin ("In side display (");
                           Public class Main f
     43
  i com publications, main forme silving
             Public static void main (string[] aigs) ,
                c · obj = new(C);
                Obj. display Ac);
```

```
can emorate in storice ecopts station,
  Obj · displays ();
                  isin blur store y bilduly
  ob, display cc);
 33
output: inside display A
        inside display Bon progett : 600
       inside display c : O a from the igo
Herirarchial Inheritance
         Class Animal & osed, carn
              void eat () &
           System - out. print in (" This animal mats food");
                      on reight him allows
       Class Dog entends Animal for more
          void barker s
           System. Out printing (" The dog banks").
                   Public your display BID &
       Class cat entende Animal &
                                              11
                 meow() of
          void
               system - out. printh ("The cat med No");
     project out of a disting for many
      Public Class Main of
            Public Static void main (sting [] args),
  Dog. dog = new Dog ()
                   dog eat C):
```

```
as instruction county bodism") endoing the materia
 dog · bark():
                         get bustons wior between
Cat. cat = new cat();
  cat. meowe); significa some indusquitura seem sidusquitura
       1 ( apro 1 Traicis) mora blov oilote stiden
Output: This animal eats food
         The
            dog banks
                         · ma mortisca todo
        This animals eats food military 100
        The
            cat meons . . . person isto
Multiple Inheritance
     Class A &
                                              13F 1140
                      recklood from class a
         System · out print in (" method from class A");
                      niethod from missface c
  74
     interface B &
                          is reachiblement (2011)
        void method B ();
                       Public soil show of of
      void method c ();
               I will be to be the same
    4
                       () Tart: blov
      class Dealtends A implements B, C &
                 public void method B() {
```

```
System out printen ("methool from interface B"
                                           : (1 x rb d . 1. 27)
     public void method ();
                                   -()10) mary $103.46.
         System out printen ("method from interface
    3 3
     public class multiplenheritance enample
           public static void main (string[] args);
             10 obs = new 10 commo mar := 100 co
                               all good boune
            Obj. method Aci:
            Obj. method_Boll; 2100 clossics all
             obj. method co; sursing the sale
              ኔ ኔ
                                           Mill Lakerdie
butput:
                                        (1006 A 3
        Method from class A
                              ) A hodisa body
   ( "A Soll) man
                from Interface B
                   System - out panians ( v mistiped
        method from interface c
Hybrid Inheritance
  Class Grandfather &
                               (1) di baihari kijav
        public void show G c) ;
      System. out. println (" He is grand father in).
     44
                           O a harrian' blay
           father entends grandfathers
    C lass
             public void ShowF() &
        sustem out printin ("He is father");
          flog pointen they allely
      y
```

```
The Market Andrew
             entends
                    father s
  1995
       SON
        parent around toll
   and t
                               THE OF CHILDREN
          public void show sc) 1
           System - out · println (" He (& son ");
                     King comparable of compiler landing
    44
public class Daughter extends father
                                     ther a could pro-1
      baptic world as possed back for actionis
    System. out. println (" she is daughter ");
                               0% the try place 8(0%)
                                        arg's[]) ¿
       public static void main (string
with the section of one book super son ();
       . diele the Objections of in bottomes ad of show
             shooth, show FC);
     obj · Show 好();
                                 of gradies of - to helper
           Daughter Obj 2 - new Daugther ();
                Obj2. Show DC);
                                                wanti · P
                obje. Show For; buttern o much autgence
                 Obj 2. Show G (); do do do to ) . pel
           44
                                  class rejoin s
 outputs He is son
                          public static
               is father
           He
                                           Frrt who
               is grandfather
            He
                                 : plo 0 po 1011
           she is daughtly
               is father where the my ape
 doud pri
           He
               is grand father.
           He
                    which funtilmetic enception () s
  E (1875) Colo Center ( a profession of exception = 2"+
```

c get indescription;

a.

? pulled about the Exception is an error that occurs during the s sterior en bineur (a He te am a) imuland 40

key component of exception handling.

1. Try Block- This is where you write the code that my throw an exception. It an exception occurs, the execution Of the try block stops and control is transferred to catch block! (Elepto priore) alone biov others andpoi

2. Catch Block - this is where you handle the exception block of code to be executed if an error occurs to try block.

3. Finally Block - This block Contains code that is executed SH OND BE (): regardiess of whether an exception was thrown or not.

4. throw statements- This is used to explicitly thrown an (OU world - cido exception from a method, or block of code

1. Try - - catch block 1 moto . was

class main ;

public static void main (string [] args); , radion at the

trys

int a= 5/a;

she is taught system. out. println (i Res of Code in try block).

rallificació si si

enior know et ou catch (Anithmetic enception c) & system. out. printen (" Arithmetic enception =>"+ e.get message());

```
Me.
```

id the order 160 shoots did Deatch (Enception e) s System. out. printen ("exception > " + e.getmessage()); 494 Output: Arithmetic exception => / by zero 7 promot

2. Try --- Catch block

public. Class mainis) intring the interes Public Static void main (string [] args);

try s

int a [] कि एए 20/30 3 70 में प्रकार अधिकार में अधिकार में system. out-println (ac w); pripari ai aint

3 catch (Array ander out of Bourds enception. e) system out minten ("A vray index outrob Bound exception = " + egetmessage ());

333

4 (812 000) 81 Array underbut of Bounds Exception = Index is out of output: bounds for length y.

Finally & block leits on buy " milling the imaleys

class main & public Static void main (string [] args) {

```
reary x
   int divide by zero = 570;
  Catch [ Arithmetic Enception e) &
                                     in the Course into one
           System. Out. printen ('Arthmetic exception =) 11 +e 18
       message (1).
                       Asithmetic exception = stopses
     3 Pinally &
                                       July - - colch block
         System out print in ("This mis the Anally block").
    papers static void main (state prints studies
 Cutput:
          Anithmetic enception Palaby zen [70 1111
         This is Finally block: Jos alanta too malepe
         Crote) igo por the county found to more porca) as por E.
Publico class mains

Static void cherrige (int age) throws with metic
 1110 of 18 Cage (18) {
   throw new Arithmetic exception (myoy are not eligible).
  y else {
                              Lounds tir rength &.
   3 ystem. Out-printer(" you are eligible to vote")
   44
 public static void main (string [] args q
                      check age (us);
         47
```

```
Jute You are not cligible.
Jested thy block
        public class enceptest of
             Public static void main (string args (J) }
  try >
    int acj= {1,2,3};
  try s
     int 6=1/0;
      System out println (" Friception thrown: " + get message
   Y catch (exception e) &
         age(); q
        system out print en (al4J);
       Jestch [Array - index out of Bounds exception e) ;
        System, out. println(1 exception thrown: "te, get messagec).
        system. out. printer ("Execut of the blocic"),
outputs Exception thrown is 1 by zero
Exception thrown; index 4 out of bounds for length 3
   out of the block
```