Exception Handling

try
catch
finally
throw
throws

Exception
checked
Unchecked

1
2
Prntr
free
free
1
x
free
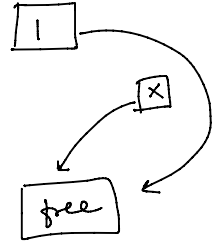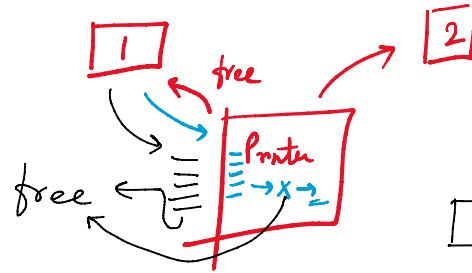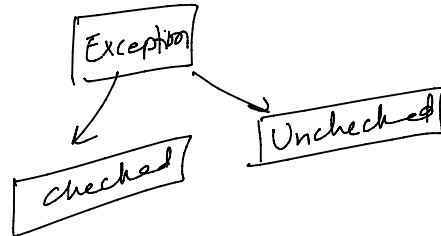
Multiple Try - catch

```java
import java.io.*;
class Main
{
  public static void main(String z[])throws IOException
  {
    int a,b,c=0;
    BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
    System.out.println("Enter 2 numbers");
    try
    {
    a=Integer.parseInt(br.readLine());
    b=Integer.parseInt(br.readLine());
    c=a/b;
    System.out.println("Division is "+c);
    }
    catch(ArithmeticException e)
    {
      System.out.println("Your are not supposed to enter 0 as deno");
    }
     catch(NumberFormatException e)
    {
      System.out.println("Pls Enter a number");
    }
    catch(Exception e)
    {
      System.out.println(e);
    }

    }
  }
```

Nested try catch

```java
import java.io.*;
class Main
```

```java
{
    public static void main(String z[])throws IOException
    {
        int a,b,c=0;
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        System.out.println("Enter 2 numbers");
        try
        {
        a=Integer.parseInt(br.readLine());
        b=Integer.parseInt(br.readLine());
        try{
        c=a/b;
        System.out.println("Division is "+c);
        }
        catch(ArithmeticException e)
        {
            System.out.println("Your are not supposed to enter 0 as deno");
        }
        }
         catch(NumberFormatException e)
        {
            System.out.println("Pls Enter a number not a string");
        }

    }
}
```

Throw Keyword

```java
import java.util.*;
class Main
{
    public static void main(String z[])
    {
        int age;
        Scanner s=new Scanner(System.in);
        System.out.println("Enter your age numbers");
        try
        {
        age=s.nextInt();
        if(age<18)
        {
            throw new NumberFormatException();
        }
        System.out.println(" You are an eligible voter");
        }
         catch(NumberFor[[matException e)
        {
            System.out.println("You cannot vote");
        }

    }
}
```

Throws Keyword

```java
import java.io.IOException;
class Testthrows1{
 void m()throws IOException{
   throw new IOException("device error");//checked exception
  }
 void n()throws IOException{
   m();
  }
 void p(){
  try{
   n();
  }catch(Exception e){System.out.println("exception handled");}
 }
 public static void main(String args[]){
  Testthrows1 obj=new Testthrows1();
  obj.p();
  System.out.println("normal flow...");
 }
}
```

User defined Exception.

```java
import java.util.*;
class Main
{
   public static void main(String z[])
   {
      int age;
      Scanner s=new Scanner(System.in);
      System.out.println("Enter your age numbers");
      try
      {
      age=s.nextInt();
      if(age<18)
      {
         throw new PratikException("u r under age");
      }
      System.out.println(" You are an eligible voter");
      }
       catch(PratikException e)
      {
         System.out.println("You cannot vote");
      }

   }
}
class PratikException extends Exception
{
   PratikException(String s)
   {
     System.out.println(s);
   }
}
```