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import java.util.Scanner;

class TestFinallyBlock{
    void TryCatchFinally(int data, boolean value){
        try{
            if(value)
                data/=0;
            else{
                data%= 10;
                System.out.println("Mod of value: " + data);
            }
            int arr[]={1,4,8};
            arr[9]=6;
        }
        catch(ArithmeticException e){
            System.out.println("Error:Divide by zero not allowed");
        }
        catch(ArrayIndexOutOfBoundsException e){
            System.out.println("Error:Array index out of bound");
        }
        finally{
            System.out.println("finally block is always executed");
        }
        System.out.println("rest of the code...");
    }
}

class TestThrow{
    void validate(int age){
        try{
            if(age<18)
                throw new ArithmeticException("Using Throw KeyWord ");
            else
                System.out.println("welcome to vote");
        }
        catch(ArithmeticException e){
            System.out.println("Caught: " + e.getClass()+ e);
        }
    }
}

class TestThrows{
    void throws1() throws IllegalAccessException{
        System.out.println("Entered in throws1");
        throw new IllegalAccessException("Testing..");
    }
    void test(){
        try{
            System.out.println("Before throws1");
            throws1();
        }
        catch(IllegalAccessException e){
            System.out.println("Caught: "+e);
        }
    }
}

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    }
}

class Main {
    public static void main(String[] args) {
        System.out.println("Try Catch Finally.....");
        TestFinallyBlock te = new TestFinallyBlock();
        te.TryCatchFinally(10, true);
        System.out.println("\n");
        te.TryCatchFinally(10, false);
        System.out.println("\n");
        System.out.println("Throw keyword....");
        TestThrow user = new TestThrow();
        user.validate(17);
        user.validate(20);
        System.out.println("\n");
        System.out.println("Throws keyword....");
        TestThrows tt = new TestThrows();
        tt.test();
    }
}

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Output:

Try Catch Finally.....  
Error:Divide by zero not allowed  
finally block is always executed  
rest of the code...

Mod of value: 0  
Error:Array index out of bound  
finally block is always executed  
rest of the code...

Throw keyword....  
Caught: class java.lang.ArithmeticException  
Using Throw KeyWord  
welcome to vote

Throws keyword....  
Before throws1  
Entered in throws1  
Caught: java.lang.IllegalAccessException: Testing..