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C2 BATCH

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LAB PROGRAM: 8

→ import java.util.*;

```
class ageException extends Exception {  
    int detail;  
    ageException (int a) {  
        detail = a;  
    }  
    public String toString () {  
        return "Exception :" + detail + "the entered age does not match the user's requirement";  
    }  
}  
class Father {  
    int age;  
    Father (int age) throws ageException {  
        this.age = age;  
        if (this.age <= 0) {  
            throw new ageException (this.age);  
        }  
    }  
    void display () {  
        System.out.println ("Father's age : " + this.age);  
    }  
}  
class Son extends Father {  
    Father f;  
    Son (int age, Father f) throws ageException {  
        super (age);  
        this.f = f;  
        if (this.age >= this.f.age) {  
            throw new ageException (this.age);  
        }  
    }  
}
```

```
    }  
}  
void display () {  
    this.f.display ();  
    System.out.println ("Son's age : " + this.age);  
}  
}  
}  
  
public class prog & {  
    public static void main (String [] args) {  
        try {  
            Scanner input = new Scanner (System.in);  
            System.out.print ("Enter the father's age : ");  
            Father f = new Father (input.nextInt());  
            System.out.print ("Enter the son's age : ");  
            Son s = new Son (input.nextInt(), f);  
            s.display ();  
        } catch (Exception e) {  
            System.out.println (e);  
        }  
    }  
}
```

prog8 - Notepad

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```
import java.util.*;  
  
class ageException extends Exception{  
    int detail;  
    ageException(int a){  
        detail = a;  
    }  
    public String toString(){  
        return "Exception :" + detail + " the entered age does not match the category";  
    }  
}  
class Father{  
    int age;  
    Father(int age) throws ageException{  
        this.age = age;  
        if(this.age<=0){  
            throw new ageException(this.age);  
        }  
    }  
    void display(){  
        System.out.println("Father's age:" + this.age);  
    }  
}  
  
class Son extends Father{  
    Father f;  
    Son(int age, Father f) throws ageException{  
        super(age);  
        this.f = f;  
        if(this.age>=this.f.age){  
            throw new ageException(this.age);  
        }  
    }  
    void display(){  
        this.f.display();  
        System.out.println("Son's age:" + this.age);  
    }  
}
```



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```
}

}

public class prog8{
    public static void main(String[] args){
        try{
            Scanner input = new Scanner(System.in);
            System.out.print("Enter the Father's age:");
            Father f = new Father(input.nextInt());
            System.out.print("Enter the Son's age:");
            Son s = new Son(input.nextInt(),f);
            s.display();
        }catch(Exception e){
            System.out.println(e);
        }
    }
}
```

Command Prompt

```
E:\ooj\lab\LAB 8>javac lab8.java
```

```
E:\ooj\lab\LAB 8>java lab8
Enter the Father's age:54
Enter the Son's age:18
Father's age:54
Son's age:18
```

```
E:\ooj\lab\LAB 8>java lab8
Enter the Father's age:-12
```

```
Exception : -12 the entered age does not match the category
```

```
E:\ooj\lab\LAB 8>java lab8
Enter the Father's age:28
Enter the Son's age:32
Exception :32 the entered age does not match the category
```

```
E:\ooj\lab\LAB 8>
```