

# Ex.1

```
import java.util.*;

class Account_Details extends Exception
{
    static long account_number=100000;
    int balance=10000;
    Account_Details()
    {
    }
    Account_Details(String str)
    {
        super(str);
    }
}

class CustomerDetails extends Account_Details
{
    String name,address,age,phone_number;
    int withdraw;
    long accno;
    Scanner sc= new Scanner(System.in);
    CustomerDetails()
    {
        account_number=++account_number;
        accno=account_number;
    }
    static void isNumber(String s) throws Account_Details
    {
        for (int i = 0; i < s.length(); i++)
            if(Character.isDigit(s.charAt(i)) == true)
            {
                Account_Details a =new Account_Details("Please enter a valid name");
                throw a;
            }
        }
    }
```

```
}  
else  
{  
    continue;  
}  
}  
  
static void ischaracter(String s) throws Account_Details  
{  
    for (int i = 0; i < s.length(); i++)  
        if(Character.isDigit(s.charAt(i)) == true)  
        {  
            continue;  
        }  
        else  
        {  
            Account_Details a =new Account_Details("Please enter a valid name");  
            throw a;  
        }  
    }  
  
    void read()  
    {  
        System.out.println("The account number is "+accno);  
        try  
        {  
            System.out.print("Enter the name: ");  
            name=sc.nextLine();  
            isNumber(name);  
            try  
            {  
                System.out.println("Enter the age: ");  
                age=sc.nextLine();
```

```
ischaracter(age);
if(age.length()>2 | |age.length()<2)
{
Account_Details a =new Account_Details("Please enter a valid name");
throw a;
}
try
{
System.out.println("Enter the address ");
address=sc.nextLine();
if(address.length()>50)
{
Account_Details a =new Account_Details("Please enter address below 50 characters");
throw a;
}
try
{
System.out.println("Enter the phone number ");
phone_number=sc.nextLine();
ischaracter(phone_number);
if(phone_number.length() !=10)
{
Account_Details a =new Account_Details("Please enter valid phone number");
throw a;
}
try
{
System.out.println(balance);
System.out.println("Enter the amount to be withdrawn ");
withdraw=sc.nextInt();
if (balance<withdraw)
```

```
{  
    Account_Details me = new Account_Details("Balance is less than withdrawl amount");  
    throw me;  
}  
}catch (Account_Details e){  
    e.printStackTrace();  
}  
}  
catch(Account_Details e)  
{  
    e.printStackTrace();  
}  
}  
catch(Account_Details e)  
{  
    e.printStackTrace();  
}  
}  
catch(Account_Details e)  
{  
    e.printStackTrace();  
}  
}  
catch(Account_Details e)  
{  
    e.printStackTrace();  
}  
}  
catch(Account_Details e)  
{  
    e.printStackTrace();  
}  
}  
}  
public class Dank  
{  
    public static void main(String args[])
```

```
{  
    Scanner sc= new Scanner(System.in);  
    System.out.println("Enter the number of people");  
    int n =sc.nextInt();  
    CustomerDetails [] hello = new CustomerDetails [n];  
    for (int i = 0; i < n; i++)  
    {  
        hello[i]=new CustomerDetails();  
        hello[i].read();  
    }  
}  
}
```

# Result

Command Prompt

```
C:\Users\aswin\Desktop>javac Dank.java
```

```
C:\Users\aswin\Desktop>java Dank
```

```
Enter the number of people
```

```
2
```

```
The account number is 100001
```

```
Enter the name: S Aswin
```

```
Enter the age:
```

```
20
```

```
Enter the address
```

```
50 Ignacy Maistry Street Puducherry 605001
```

```
Enter the phone number
```

```
9994231662
```

```
10000
```

```
Enter the amount to be withdrawn
```

```
5000
```

```
The account number is 100002
```

```
Enter the name: Jalaj
```

```
Enter the age:
```

```
19
```

```
Enter the address
```

```
50,North Car street ,Panruti
```

```
Enter the phone number
```

```
8667832235
```

```
10000
```

```
Enter the amount to be withdrawn
```

```
5000
```

```
C:\Users\aswin\Desktop>
```

```
C:\Users\aswin\Desktop>java Dank
Enter the number of people
1
The account number is 100001
Enter the name: Ash123win
Account_Details: Please enter a valid name
    at CustomerDetails.isNumber(Dank.java:30)
    at CustomerDetails.read(Dank.java:58)
    at Dank.main(Dank.java:133)
```

```
C:\Users\aswin\Desktop>java Dank
Enter the number of people
1
The account number is 100001
Enter the name: S Aswin
Enter the age:
100
Account_Details: Please enter a valid name
    at CustomerDetails.read(Dank.java:66)
    at Dank.main(Dank.java:133)
```

```
C:\Users\aswin\Desktop>java Dank
Enter the number of people
1
The account number is 100001
Enter the name: S Aswin
Enter the age:
20
Enter the address
50 Ignacy Maistry Street Puducherry
Enter the phone number
99942316624
Account_Details: Please enter valid phone number
    at CustomerDetails.read(Dank.java:85)
    at Dank.main(Dank.java:133)
```

```
C:\Users\aswin\Desktop>java Dank
Enter the number of people
1
The account number is 100001
Enter the name: S Aswin
Enter the age:
20
Enter the address
50 Ignacy Maistry street Puducherry
Enter the phone number
9994231662
10000
Enter the amount to be withdrawn
```

# Ex 2

```
import java.util.*;

class Product extends Exception
{
    int productID;
    String productName;
    double cost;
    Boolean availableStatus;

    Product()
    {
    }

    Product(String str)
    {
        super(str);
    }

    Product(int a,String b,double c)
    {
        productID=a;
        productName=b;
        cost=c;
        availableStatus=true;
    }
}

public class ProductDemo
{
    Scanner sc= new Scanner(System.in);

    void display(Product[] product,int i)
    {
        System.out.println(product[i].cost);
        System.out.println(product[i].productName);
        System.out.println(product[i].productID);
    }
}
```



```
void search(Product[] product,int r)
{
Scanner sc= new Scanner(System.in);
try
{
int count=0;
for(int i=0;i<5;i++)
{
if(r>5)
{
Product a=new Product("ProductNotFoundException");
throw a;
}
else if(product[i].productID == r)
{
System.out.println(product[i].availableStatus);
System.out.println(product[i].productName);
System.out.println(product[i].cost);
break;
}
else
{
continue;
}
}
}catch(Product e)
{
e.printStackTrace();
}
}

public static void main(String args[])
```

```
{  
int n,a=5;  
Product [] product = new Product [5];  
ProductDemo hello = new ProductDemo();  
product[0]=new Product(1,"bottle",10);  
product[1]=new Product(2,"pad",20);  
product[2]=new Product(3,"pen",30);  
product[3]=new Product(4,"pencil",40);  
product[4]=new Product(5,"rubber",50);  
System.out.println("Enter the product id");  
Scanner sc= new Scanner(System.in);  
n=sc.nextInt();  
hello.search(product,n);  
}  
}
```

# Result

```
C:\> Command Prompt
Microsoft Windows [Version 10.0.18363.1082]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\aswin>cd desktop

C:\Users\aswin\Desktop>javac ProductDemo.java

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
1
true
bottle
10.0

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
2
true
pad
20.0

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
3
true
pen
30.0

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
4
true
pencil
40.0

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
5
true
rubber
50.0

C:\Users\aswin\Desktop>java ProductDemo
Enter the product id
6
Product: ProductNotFoundException
    at ProductDemo.search(ProductDemo.java:42)
    at ProductDemo.main(ProductDemo.java:75)
```