

OBJECT-ORIENTED PROGRAMMING (CSF3043)

K1

LECTURER: PN. NOOR HAFHIZAH

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NAME : ARUN MUGILAN A/L SARGUNAN

MATRICS NO.: S63746

LAB MODULE: 6

Shape - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Shape.java Circle.java Rectangle.java ShapeTest.java

Source History

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package shape;
7
8  /**
9   *
10   * ARUNMOGILAN A/L SARASUNAN 563746
11   */
12
13  public class Shape {
14      private String ShapeName;
15
16      public Shape(String ShapeName) {
17          setShapeName(ShapeName);
18      }
19
20      public void setShapeName(String ShapeName) {
21          this.ShapeName = ShapeName;
22      }
23
24      public String getShapeName() {
25          return this.ShapeName;
26      }
27
28      public double calculateArea() {
29          return 0.0;
30      }
31
32      public String toString() {
33          return String.format("%s %s\n",
34              "Shape Name", getShapeName());
35      }
36  }
```

shape.Shape

Output 36:2 INS

Shape - NetBeans IDE 8.2

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Search (Ctrl+F)

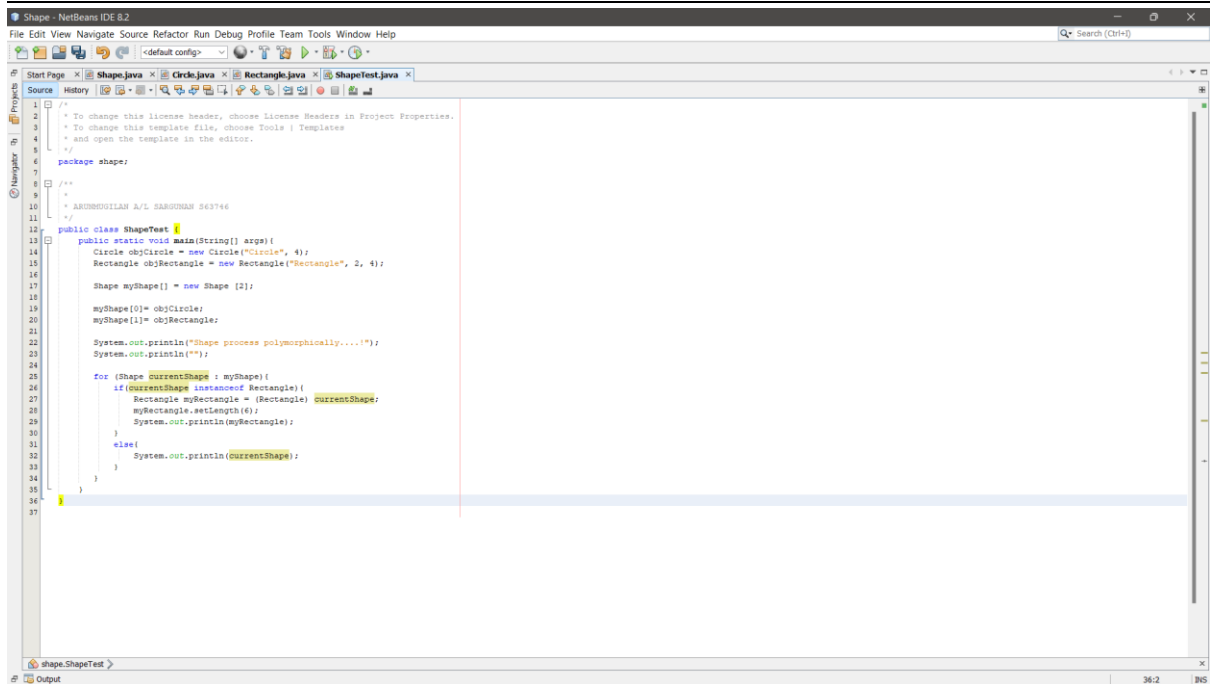
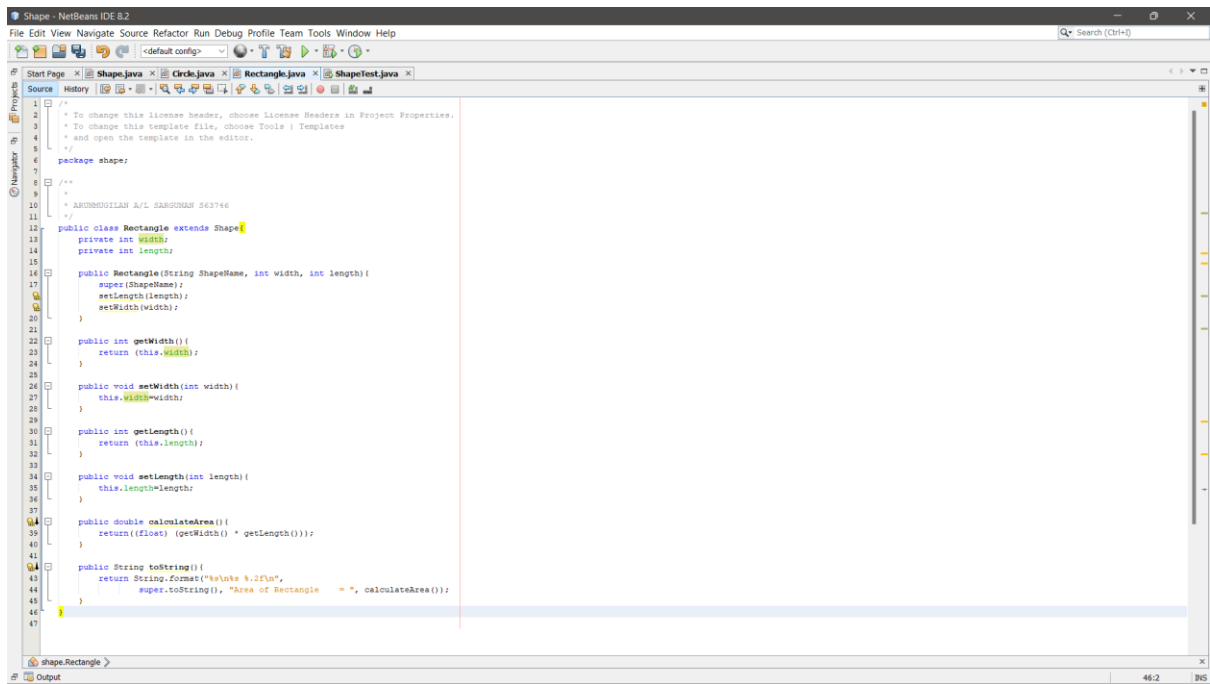
Start Page Shape.java Circle.java Rectangle.java ShapeTest.java

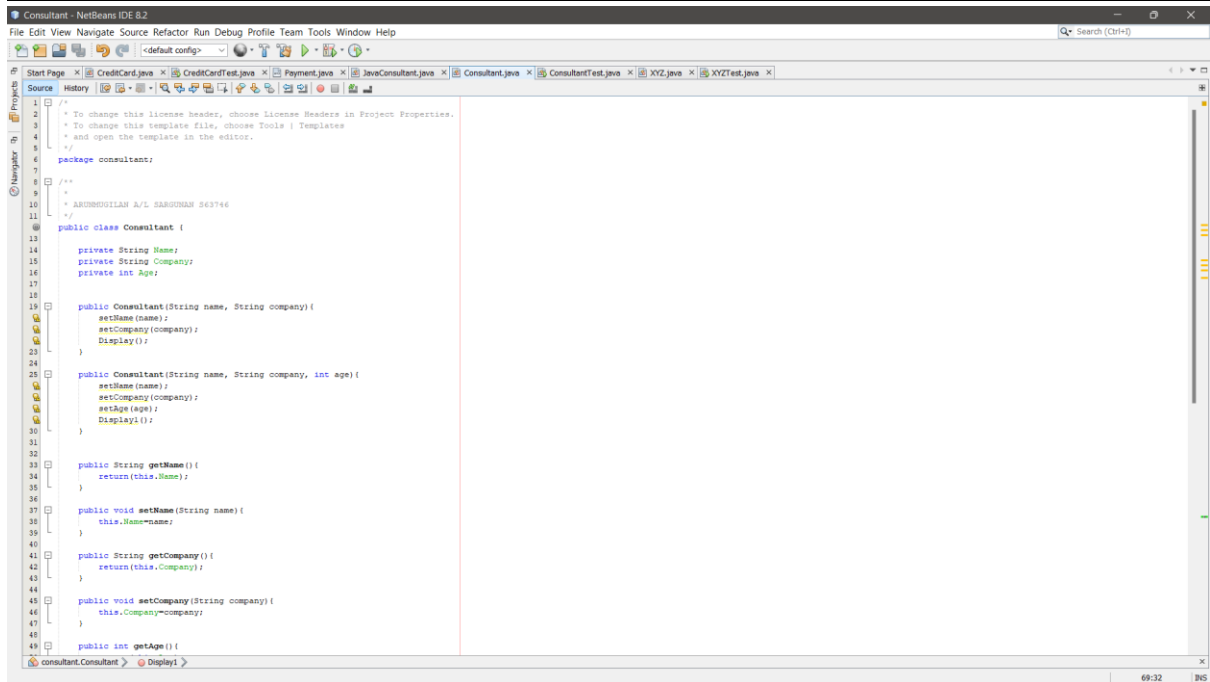
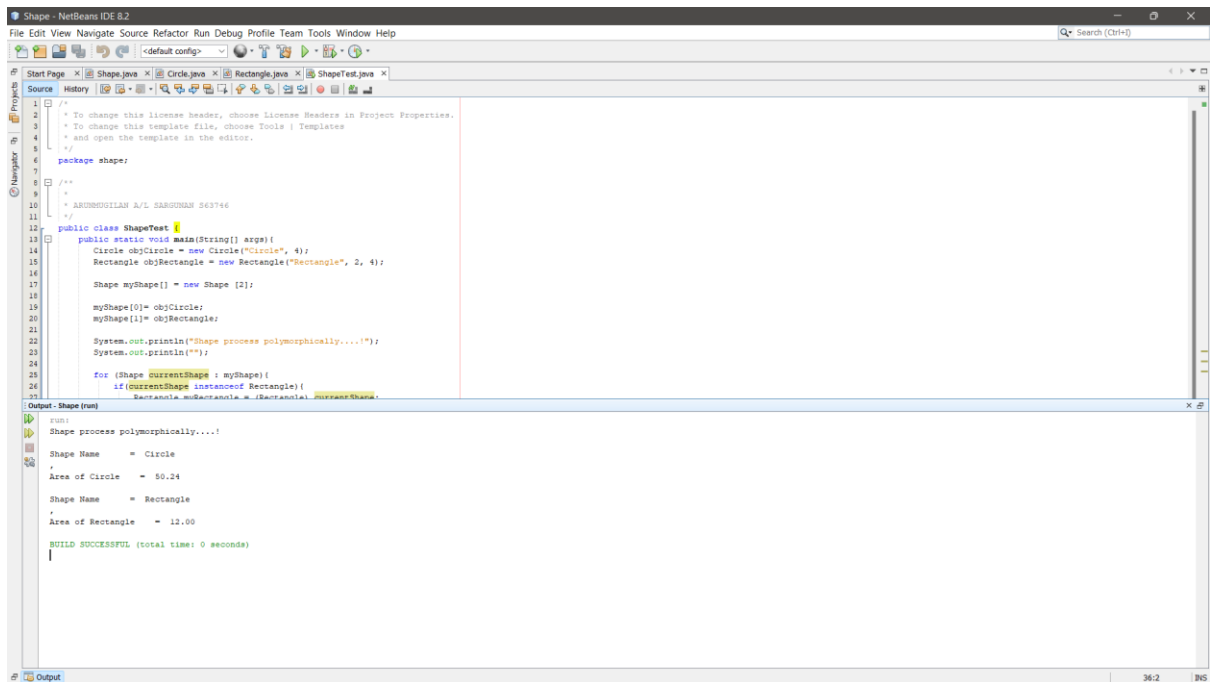
Source History

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package shape;
7
8  /**
9   *
10   * ARUNMOGILAN A/L SARASUNAN 563746
11   */
12
13  public class Circle extends Shape {
14      private int radius;
15
16      public Circle(String ShapeName, int radius) {
17          super(ShapeName);
18          setRadius(radius);
19      }
20
21      public int getRadius() {
22          return this.radius;
23      }
24
25      public void setRadius(int radius) {
26          this.radius = radius;
27      }
28
29      public double calculateArea() {
30          return (float) (3.14 * getRadius() * getRadius());
31      }
32
33      public String toString() {
34          return String.format("%s\n",
35              super.toString(), "Area of Circle", calculateArea());
36      }
37  }
```

shape.Circle

Output 37:2 INS





Consultant - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java

Source | History | |

```
1  package consultant;
2
3  /**
4   * and open the template in the editor.
5   */
6  package consultant;
7
8  /**
9   *
10   * ARUNMOGILAN A/L SARUNJAN S6376
11   */
12  public class Consultant {
13
14      private String name;
15      private String company;
16      private int age;
17
18      public Consultant(String name, String company, int age) {
19          setName(name);
20          setCompany(company);
21          setAge(age);
22      }
23
24      public String getName() {
25          return this.name;
26      }
27
28      public void setName(String name) {
29          this.name = name;
30      }
31
32      public String getCompany() {
33          return this.company;
34      }
35
36      public void setCompany(String company) {
37          this.company = company;
38      }
39
40      public int getAge() {
41          return this.age;
42      }
43
44      public void setAge(int age) {
45          this.age = age;
46      }
47
48      public int calculateSalary() {
49          return 0;
50      }
51
52      public void Display() {
53          System.out.println("Name: " + getName());
54          System.out.println("Company: " + getCompany());
55      }
56
57      public void Display1() {
58          System.out.println("Name: " + getName());
59          System.out.println("Company: " + getCompany());
60          System.out.println("Age: " + getAge());
61      }
62  }
```

consultant.Consultant | Display1 | 69:32 | BIS

Consultant - NetBeans IDE 8.2

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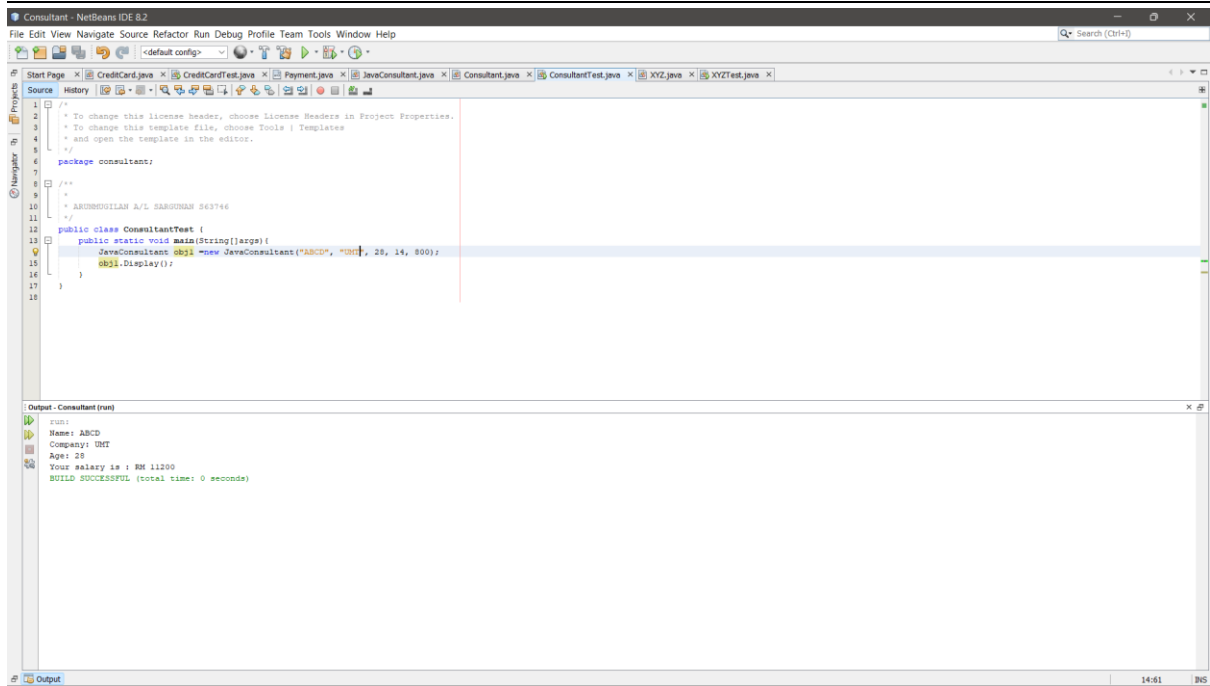
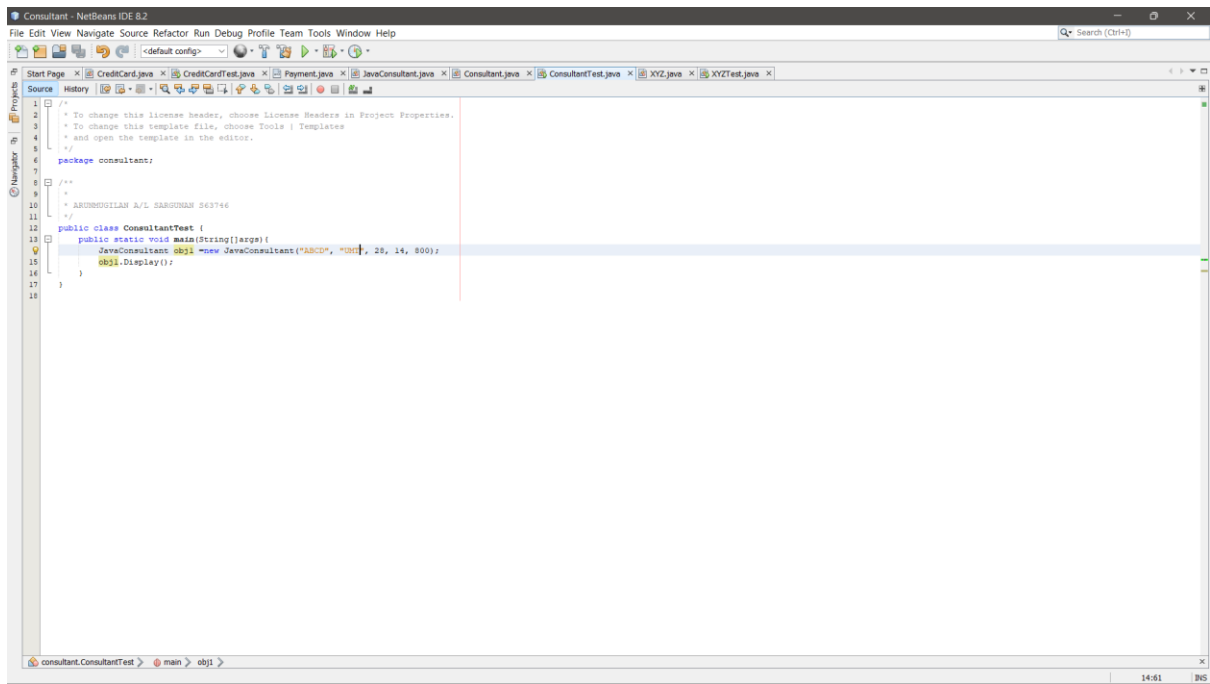
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Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java

Source | History | |

```
1  package consultant;
2
3  /**
4   * and open the template in the editor.
5   */
6  package consultant;
7
8  /**
9   *
10   * ARUNMOGILAN A/L SARUNJAN S6376
11   */
12  public class JavaConsultant extends Consultant {
13
14      private int Day;
15      private int Salary;
16
17      public JavaConsultant(String name, String company, int age, int day, int salary) {
18          super(name, company, age);
19          setDay(day);
20          setSalary(salary);
21      }
22
23
24
25      public int getDay() {
26          return this.Day;
27      }
28
29      public void setDay(int day) {
30          this.Day = day;
31      }
32
33      public int getSalary() {
34          return this.Salary;
35      }
36
37      public void setSalary(int salary) {
38          this.Salary = salary;
39      }
40
41
42      public int calculateSalary() {
43          int result = getDay() * getSalary();
44          return result;
45      }
46
47      public void Display() {
48          System.out.println("Your salary is : RM " + calculateSalary());
49      }
50  }
```

consultant.JavaConsultant | Display | 48:34 | BIS



XYZ - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java

Source | History | |

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6 package xyz;
7
8
9 /**
10 * ARUNMOGILAN A/L SARGUNAN 563746
11 */
12 public final class XYZ {
13 private String Name;
14 private int Magazine;
15 public XYZ (String name, int magazine){
16 setName(name);
17 setMagazine (magazine);
18 }
19
20 final public String getName(){
21 return(this.Name);
22 }
23
24 final public void setName(String name){
25 this.Name=name;
26 }
27
28 final public int getMagazine(){
29 return(this.Magazine);
30 }
31
32 final public void setMagazine (int magazine){
33 this.Magazine=magazine;
34 }
35
36 final public double calculateCommission(){
37 double result= getMagazine() * 2.5;
38 return result;
39 }
40
41 final public void Output(){
42 System.out.println("Name: "+ getName());
43 System.out.println("Number of magazine : "+ getMagazine());
44 System.out.printf("Total commission is : RM" + "%2f\n", calculateCommission());
45 }
46 }
47

xyz.XYZ

Output 46:2 BNS

XYZ - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

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Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java

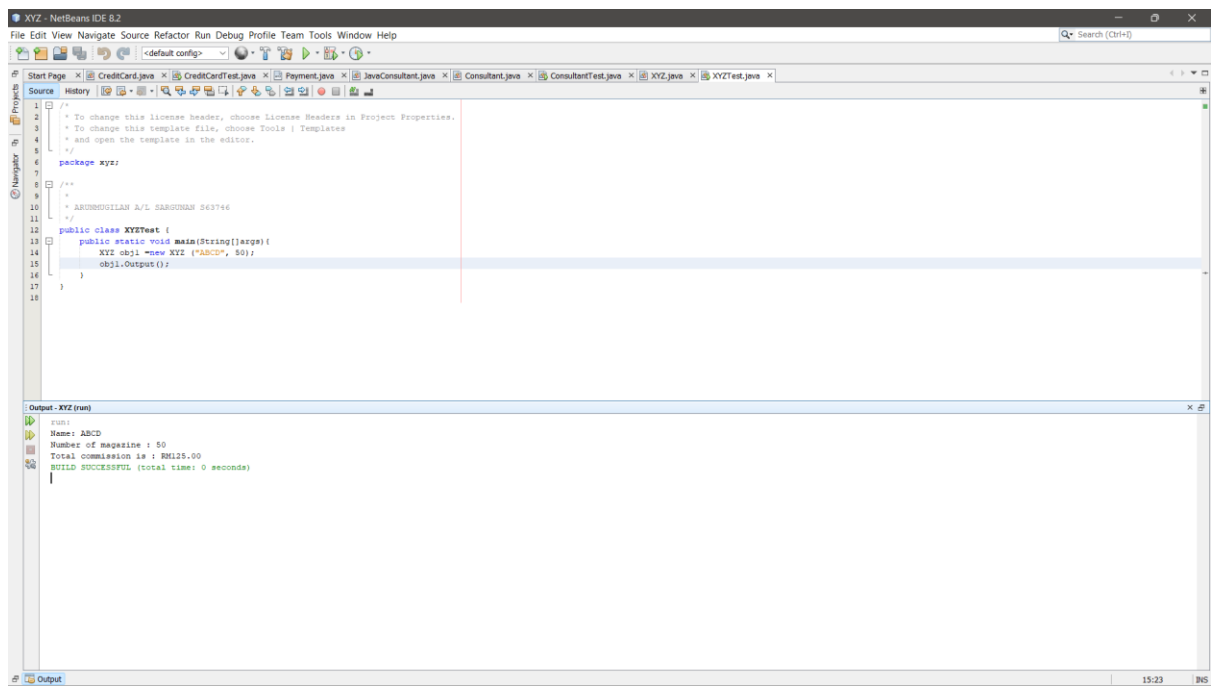
Source | History | |

1 /*
2 * To change this license header, choose License Headers in Project Properties.
3 * To change this template file, choose Tools | Templates
4 * and open the template in the editor.
5 */
6 package xyz;
7
8
9 /**
10 * ARUNMOGILAN A/L SARGUNAN 563746
11 */
12 public class XYZTest {
13 public static void main(String[] args){
14 XYZ obj1= new XYZ ("ABCD", 50);
15 obj1.Output();
16 }
17 }
18

xyz.XYZTest

main

Output 15:23 BNS




```
CreditCard - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+F)

Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java
Source | History |  | 

1  /**
2   * To change this license header, choose License Headers in Project Properties.
3   * To change this template file, choose Tools | Templates
4   * and open the template in the editor.
5   */
6  package creditcard;
7
8  /**
9   *
10   * @author ARUNMOGILAN A/L SARGUNAN 563746
11   */
12  public class CreditCard {
13      private int CCNum;
14      private String Date;
15      private String Description;
16      private double Amount;
17
18      //Define constructor
19      public CreditCard (int cnum, String date, String description, double amount){
20          setCCNum(cnum);
21          setDate(date);
22          setDescription(description);
23          setAmount(amount);
24      }
25
26
27      public int getCCNum(){
28          return(this.CCNum);
29      }
30
31      public void setCCNum(int cnum){
32          this.CCNum=cnum;
33      }
34
35      public String getDate(){
36          return(this.Date);
37      }
38
39      public void setDate(String date){
40          this.Date= date;
41      }
42
43      public String getDescription(){
44          return(this.Description);
45      }
46
47      public void setDescription(String description){
48          this.Description=description;
49      }
50  }

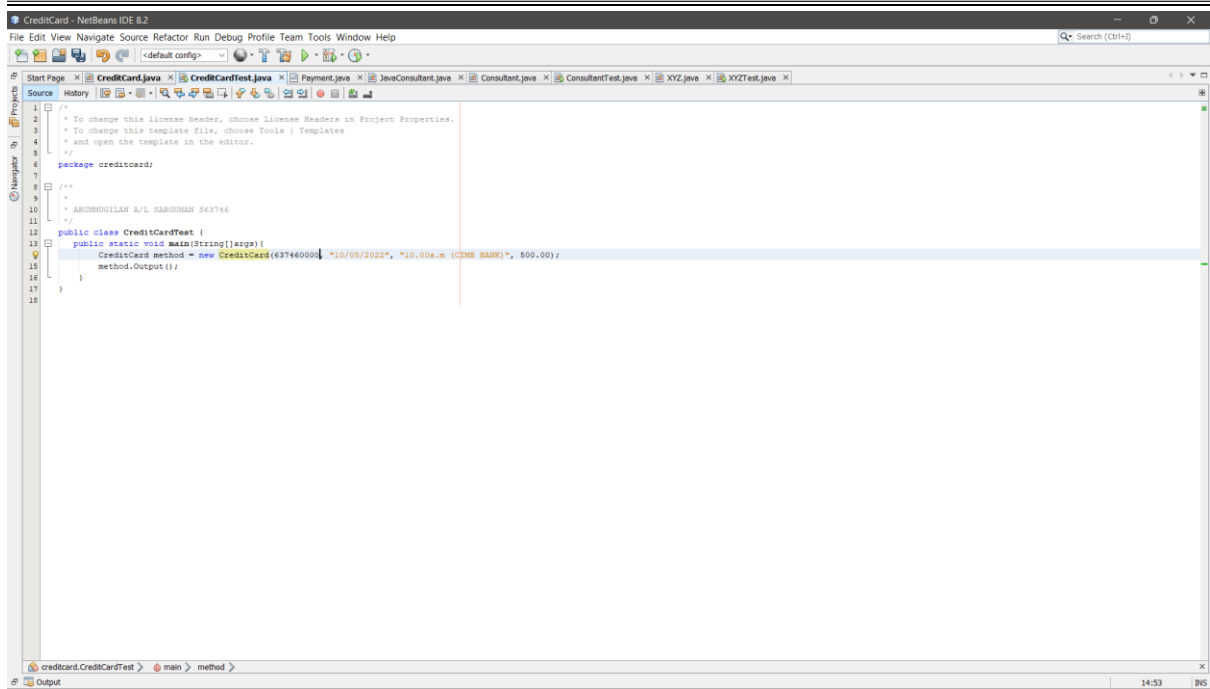
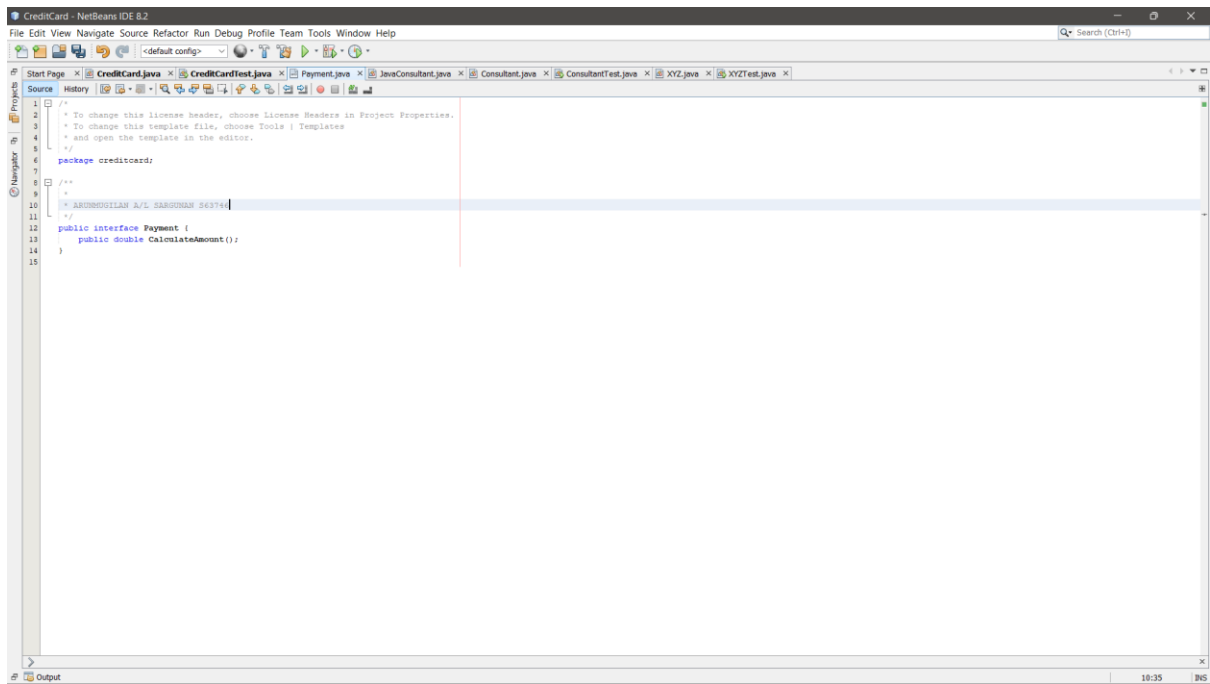
creditcard.CreditCard > Output 64:23 INS
```

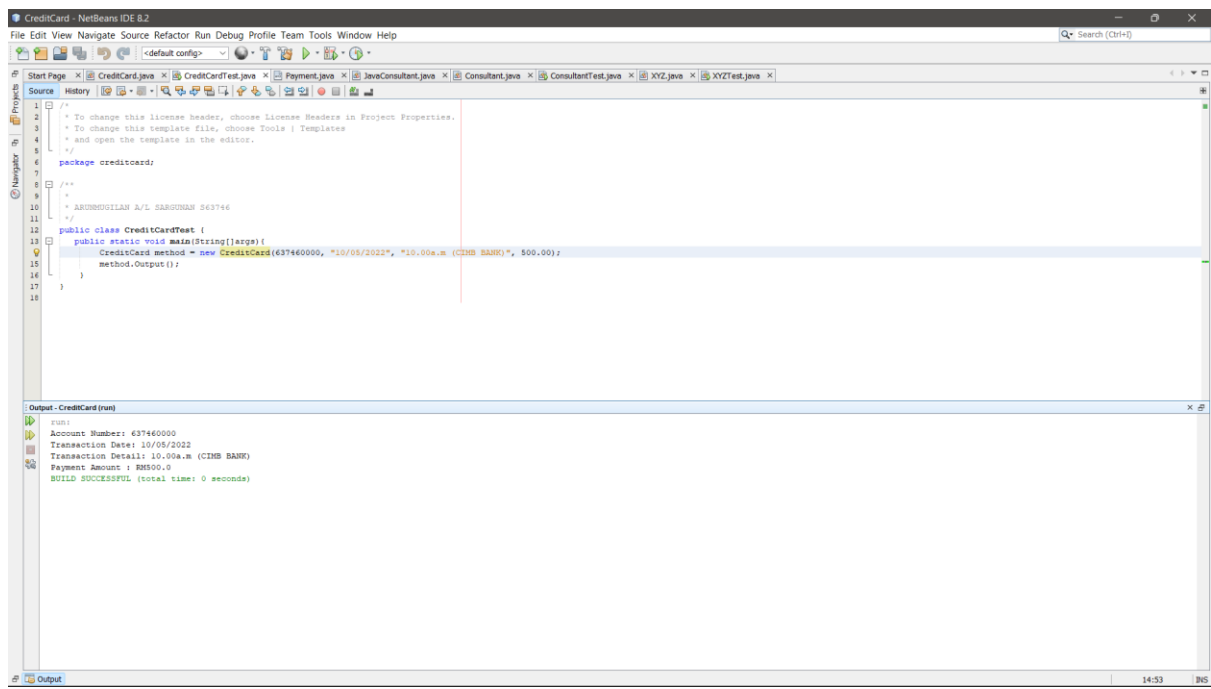
```
CreditCard - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+F)

Start Page | CreditCard.java | CreditCardTest.java | Payment.java | JavaConsultant.java | Consultant.java | ConsultantTest.java | XYZ.java | XYZTest.java
Source | History |  | 

24      setDescription(description);
25      setAmount(amount);
26
27      public int getCCNum(){
28          return(this.CCNum);
29      }
30
31      public void setCCNum(int cnum){
32          this.CCNum=cnum;
33      }
34
35      public String getDate(){
36          return(this.Date);
37      }
38
39      public void setDate(String date){
40          this.Date= date;
41      }
42
43      public String getDescription(){
44          return(this.Description);
45      }
46
47      public void setDescription(String description){
48          this.Description=description;
49      }
50
51      public double getAmount(){
52          return (this.Amount);
53      }
54
55      public void setAmount(double amount){
56          this.Amount=amount;
57      }
58
59      public double CalculateAmount(){
60          return (Amount);
61      }
62
63      public void Output(){
64          System.out.println("Account Number: "+getCCNum());
65          System.out.println("Transaction Date: "+getDate());
66          System.out.println("Transaction Details: "+getDescription());
67          System.out.println("Payment Amount : RM"+CalculateAmount());
68      }
69  }

creditcard.CreditCard > Output 58:5 INS
```





Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

Projects

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```
/*  
 * ARUNDESHILAN A/L SARGUNAN SETHI  
 */  
  
public class Address {  
    private String Street;  
    private String City;  
    private String State;  
    private int Zip;  
  
    public Address(String street,String city,String state,int zip){  
        setStreet (street);  
        setCity (city);  
        setState (state);  
        setZip (zip);  
    }  
  
    public String getStreet(){  
        return (this.Street);  
    }  
    public void setStreet(String street){  
        this.Street = street;  
    }  
    public String getCity(){  
        return (this.City);  
    }  
    public void setCity(String city){  
        this.City = city;  
    }  
    public String getState(){  
        return (this.State);  
    }  
    public void setState(String state){  
        this.State = state;  
    }  
    public int getZip(){  
        return (this.Zip);  
    }  
    public void setZip(int zip){  
        this.Zip = zip;  
    }  
  
    public String toString(){  
        return String.format("%s,%d %s,%s",getStreet(),getZip(),getCity(),getState() );  
    }  
}
```

address.Address

Output

17:5

Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

Projects

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```
/*  
 * To change this license header, choose License Headers in Project Properties.  
 * To change this template file, choose Tools | Templates  
 * and open the template in the editor.  
 */  
  
package address;  
  
/**  
 *  
 * ARUNDESHILAN A/L SARGUNAN SETHI  
 */  
  
public class Person {  
    private String First;  
    private String Last;  
  
    public Person(){  
    }  
    public Person (String first,String last){  
        setFirst (first);  
        setLast (last);  
    }  
  
    public String getFirst(){  
        return (this.First);  
    }  
    public void setFirst(String first){  
        this.First = first;  
    }  
    public String getLast(){  
        return (this.Last);  
    }  
    public void setLast(String last){  
        this.Last = last;  
    }  
}
```

Output

18:35

Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

```
1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package address;
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Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

1: /*
2: * To change this license header, choose License Headers in Project Properties.
3: * To change this template file, choose Tools | Templates
4: * and open the template in the editor.
5: */
6: package address;
7:
8: /**
9: * ARUNMOGILAN A/L SARASUNAN 563746
10: */
11:
12: public class Family extends ExtPerson {
13: public Family(String first, String last, int day, int mon, int year, String street, String city, String state, int zip, String categori, String phone) {
14: super(first, last, day, mon, year, street, city, state, zip, categori = "Family Member", phone);
15: }
16:
17: public String Display(){
18: return super.print();
19: }
20:
21:
22: }

address.Family

Output 21:2 BNS

Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

1: /*
2: * To change this license header, choose License Headers in Project Properties.
3: * To change this template file, choose Tools | Templates
4: * and open the template in the editor.
5: */
6: package address;
7:
8: /**
9: * ARUNMOGILAN A/L SARASUNAN 563746
10: */
11:
12: public class Friends extends ExtPerson {
13: public Friends(String first, String last, int day, int mon, int year, String street, String city, String state, int zip, String categori, String phone) {
14: super(first, last, day, mon, year, street, city, state, zip, categori = "Friends", phone);
15: }
16:
17: public String Display(){
18: return super.print();
19: }
20:
21:
22: }

Output 18:35 BNS

Address - NetBeans IDE 8.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

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    case 2:
        if (isLeapYear())
        {
            if (1 <= da & da <= 29)
                Day = da;
            else
                Day = 1;
        }
        else
        {
            if (1 <= da & da <= 28)
                Day = da;
            else
                Day = 1;
        }
    }
}

public int getMonth()
{
    return Month;
}

public int getDay()
{
    return Day;
}

public int getYear()
{
    return Year;
}

public String toString()
{
    return (Month + "/" + Day + "/" + Year);
}

public boolean isLeapYear()
{
    if ((Year % 4 == 0 && Year % 100 != 0) || (Year % 400 == 0))
        return true;
    else
        return false;
}
}
```

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Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source History

```
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/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package address;

/**
 *
 * @author ADITHYAN A/L SARGUNAN 563746
 */
public class Business extends ExtPerson {

    public Business(String first, String last, int day, int mon, int year, String street, String city, String state, int zip, String category, String phone) {
        super(first, last, day, mon, year, street, city, state, zip, category = "Business Associate", phone);
    }

    public String Display(){
        return super.print();
    }
}
}
```

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```
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<default config>
Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java
Source
// and open the template in the editor.
package address;

/**
 * ARUNDHOGILAN A/L SARAGUNAN 563746
 */
import java.util.Scanner;

public class addressTest {
    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        ExtPerson exp = new ExtPerson();
        Person per = new Person();

        String book[] = new String[2];
        String last[] = {"", ""};
        String catol[] = {"", ""};
        int input;

        do {
            //Choose User
            System.out.println("=====");
            System.out.println("1.Store Data");
            System.out.println("2.List All");
            System.out.println("3.Search");
            System.out.println("4.Exit");
            System.out.print("Choose One: ");
            input = in.nextInt();

            if (input == 1) {
                //Categories
                System.out.println("=====");
                System.out.println("1.Family Member");
                System.out.println("2.Friend");
                System.out.println("3.Business Associate");
                System.out.print("Choose Category? ");
                int chos = in.nextInt();
                System.out.println("=====");

                for (int i = 0; i < 2; i++) {
                    if (i == 0) {
                        Family my = new Family("Ahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
                        book[i] = my.Display();
                        Last[i] = "Kamal";
                        Catol[i] = "Family Member";
                    } else if (i == 1) {
                        Friends my = new Friends("Jahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
                        book[i] = my.Display();
                        Last[i] = "Kamal";
                        Catol[i] = "Friend";
                    } else {
                        Business my = new Business("Ahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
                        // my.Display();
                    }
                }

                for (int i = 0; i < 2; i++) {
                    for (int j = 1 + i; j < 2; j++) {
                        if (Last[j].compareTo(Last[i]) < 0) {
                            String temp = Last[i];
                            Last[i] = Last[j];
                            Last[j] = temp;

                            String temp2 = book[i];
                            book[i] = book[j];
                            book[j] = temp2;
                        }
                    }
                }

            } else if (input == 3) {
                //Display
                for (int i = 0; i < 2; i++) {
                    System.out.println(book[i]);
                    System.out.println("");
                }
            } else if (input == 4) {
                //Search Last Name
                System.out.print("Search by Last Name : ");
                String user = in.next();
            }
        } while (input != 4);
    }
}
```

```
Address - NetBeans IDE 8.2
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<default config>
Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java
Source
40 System.out.print("Choose Category? ");
41 int chos = in.nextInt();
42 System.out.println("=====");
43
44 for (int i = 0; i < 2; i++) {
45
46     if (i == 0) {
47         Family my = new Family("Ahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
48         book[i] = my.Display();
49         Last[i] = "Kamal";
50         Catol[i] = "Family Member";
51     } else if (i == 1) {
52         Friends my = new Friends("Jahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
53         book[i] = my.Display();
54         Last[i] = "Kamal";
55         Catol[i] = "Friend";
56     } else {
57         Business my = new Business("Ahmad", "Kamal", 1, 2, 2002, "Jalan Ahmad 1", "Kuantan", "Pahang", 2520, "", "013");
58         // my.Display();
59     }
60 }
61
62 for (int i = 0; i < 2; i++) {
63     for (int j = 1 + i; j < 2; j++) {
64         if (Last[j].compareTo(Last[i]) < 0) {
65
66             String temp = Last[i];
67             Last[i] = Last[j];
68             Last[j] = temp;
69
70             String temp2 = book[i];
71             book[i] = book[j];
72             book[j] = temp2;
73         }
74     }
75 }
76
77 } else if (input == 3) {
78     //Display
79     for (int i = 0; i < 2; i++) {
80         System.out.println(book[i]);
81         System.out.println("");
82     }
83 } else if (input == 4) {
84     //Search Last Name
85     System.out.print("Search by Last Name : ");
86     String user = in.next();
87 }
88 }
```

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Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source

```
70 String temp1 = book[i];
71 book[i] = book[i];
72 book[i] = temp1;
73 }
74 }
75 }
76 }
77 }
78 } else if (input == 2) {
79     System.out.println("-----");
80     //Display
81     for (int i = 0; i < 2; i++) {
82         System.out.println(book[i]);
83         System.out.println("");
84     }
85 } else if (input == 3) {
86     //Search Last Name
87     System.out.print("Search by Last Name : ");
88     String user = in.next();
89     for (int i = 0; i < 2; i++) {
90         if (user.equals(book[i])) {
91             System.out.println(book[i]);
92         }
93     }
94     System.out.println("-----");
95     System.out.println("\n1. Family Member");
96     System.out.println("\n2. Friend");
97     System.out.println("\n3. Business Associate");
98     System.out.print("Search by Category : ");
99     int user2 = in.nextInt();
100     switch (user2) {
101         case 0:
102             for (int i = 0; i < 2; i++) {
103                 if ("Family Member".equals(Cato[i])) {
104                     System.out.println(book[i]);
105                 }
106             }
107             break;
108         case 1:
109             for (int i = 0; i < 2; i++) {
110                 if ("Friend".equals(Cato[i])) {
111                     System.out.println(book[i]);
112                 }
113             }
114             break;
115         case 2:
116             break;
117     }
118 }
119 }
120 }
121 }
122 }
123 }
124 }
125 }
126 }
127 }
```

Output

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Search (Ctrl+F)

Start Page Address.java Business.java addressTest.java Date.java Friends.java ExtPerson.java Family.java Person.java

Source

```
82     System.out.println(book[i]);
83     System.out.println("");
84 }
85 }
86 } else if (input == 3) {
87     //Search Last Name
88     System.out.print("Search by Last Name : ");
89     String user = in.next();
90     for (int i = 0; i < 2; i++) {
91         if (user.equals(book[i])) {
92             System.out.println(book[i]);
93         }
94     }
95     System.out.println("-----");
96     System.out.println("\n1. Family Member");
97     System.out.println("\n2. Friend");
98     System.out.println("\n3. Business Associate");
99     System.out.print("Search by Category : ");
100     int user2 = in.nextInt();
101     switch (user2) {
102         case 0:
103             for (int i = 0; i < 2; i++) {
104                 if ("Family Member".equals(Cato[i])) {
105                     System.out.println(book[i]);
106                 }
107             }
108             break;
109         case 1:
110             for (int i = 0; i < 2; i++) {
111                 if ("Friend".equals(Cato[i])) {
112                     System.out.println(book[i]);
113                 }
114             }
115             break;
116         case 2:
117             break;
118     }
119 }
120 }
121 }
122 }
123 }
124 }
125 }
126 }
127 }
```

Output

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