Test Case Report

for

Vehicle Showroom Management System

Version 1.0 approved

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White Box Testing

a. LOGIN

Snippet 1:

```
try
{
 String s1 = jTextField1.getText();                //1
 char c[] = jPasswordField1.getPassword();
 String s2 = new String(c);
 Class.forName("oracle.jdbc.driver.OracleDriver");
 Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
 PreparedStatement ps = conn.prepareStatement("select * from registered where cust_id='"+s1+"'
and password = '"+s2+"'");
 ResultSet rs = null;
 rs = ps.executeQuery();
 if(rs.next())                          //2
 {
 String nam = rs.getString("name");             //3
 String ph = rs.getString("phone");
 String em = rs.getString("email");
 if(s1.equals("admin")&&s2.equals("admin123k"))          //4
 {
 admin_options a1 = new admin_options();            //5
 a1.setVisible(true);
 this.setVisible(false);
 }
 else              //6
 {
 Profile f = new Profile(s1, nam, ph, em);
 f.setVisible(true);
 this.setVisible(false);
 }
 }
 else                          //7
 {
 jDialog1.setVisible(true);
 jTextField1.setText("");
 jPasswordField1.setText("");
 }
}
catch(Exception e)                //8
{          System.out.println(e); }
```

Control Flow Graph:

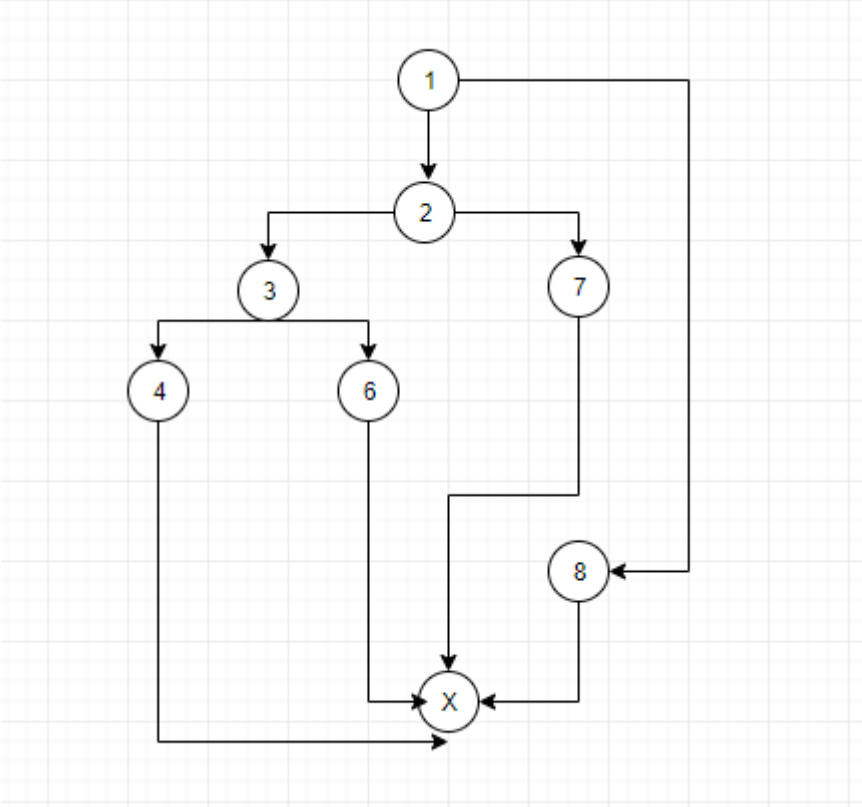

Fig 1

Cyclomatic complexity: 4

Independent path:

- 1→2→3→ 4→ X
- 1→2→3→ 6→ X
- 1→2→ 7→ X
- 1→8→ X

Snippet 2

```
int c=0;                    //1
try
{
 Class.forName("oracle.jdbc.driver.OracleDriver");          //2
 Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
 PreparedStatement ps = conn.prepareStatement("select * from registered where cust_id <>
'admin'");
 ResultSet rs = null;
 rs = ps.executeQuery();
```

```
while(rs.next())                    //3
{
 c++;              //4
 }
}
catch(Exception e){}              //5

this.setVisible(false);           //6
signup s1 = new signup(c+1);
s1.setVisible(true);
```

Control Flow Graph:

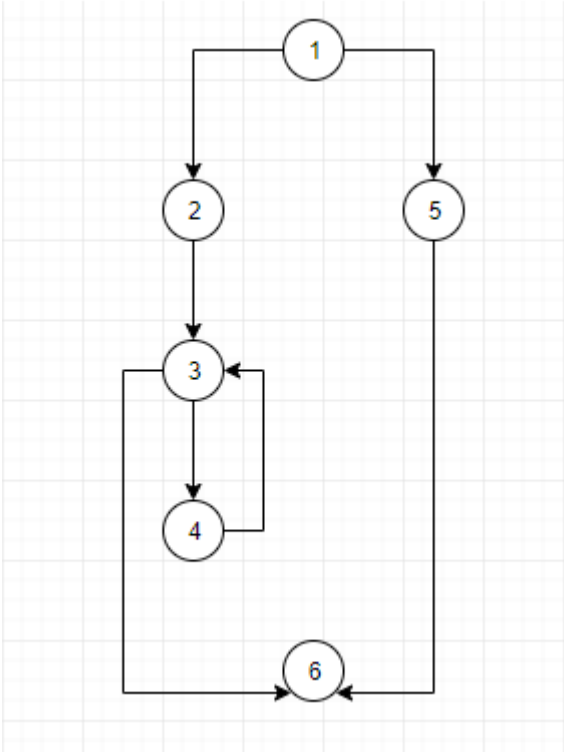

Fig 2

Cyclomatic complexity: 3

Independent paths:

- 1→2→3→6
- 1→2→3→4→3→6
- 1→5→6

System Testing

Test Case 1

Test Case Name: Login **Short Description**: Test the input credentials			
Preconditions: 1. The user has a valid account. 2. The current Customer Identification Number is **1** or **admin** and password is **iamhere1** and **admin123k** respectively. 3. The system displays the login page.			
Step	**Action**	**Expected System Response**	**Pass/Fail**
1	Enter the Customer Identification Number (“1”).	The system stores the Customer Identification Number temporarily.	Pass
2	Enter password (“iamhere1”).	The system stores the password temporarily.	Pass
3	Click “LOGIN” button.	The system verifies the login credentials with the help of database. The system prompts the user if the credentials are invalid. The system opens the profile or admin options page depending on the valid credentials.	Pass
4	Check Post Condition.		
Post Condition: 1. Profile page or Admin options page is opened.			

b. SIGN-UP

Snippet 1

```
String cin = jTextField1.getText();                //1
String nam = jTextField2.getText();
String ph = jTextField3.getText();
String email = jTextField4.getText();
String pass = jTextField5.getText();
if(ph.length()!=10)                //2
{
 jDialog1.setVisible(true);                //3
 jTextField3.setText("");
}
else if(!email.contains("@")||!email.contains(".com"))                //4
{
 jDialog1.setVisible(true);                //5
 jTextField4.setText("");
}
else if(pass.length()<8|| pass.length()>20)                //6
{
 jDialog3.setVisible(true);                //7
 jTextField5.setText("");
}
else
{
 try                //8

{
  Class.forName("oracle.jdbc.driver.OracleDriver");            //9
  Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
 PreparedStatement ps = conn.prepareStatement("insert into registered
values('"+cin+"','"+nam+"','"+email+"','"+pass+"','"+ph+"')");
 ResultSet rs = null;

 rs = ps.executeQuery();
 this.setVisible(false);
 jDialog2.setVisible(true);
}
catch(Exception e)                //10
{}

}
```

Control Flow Graph:

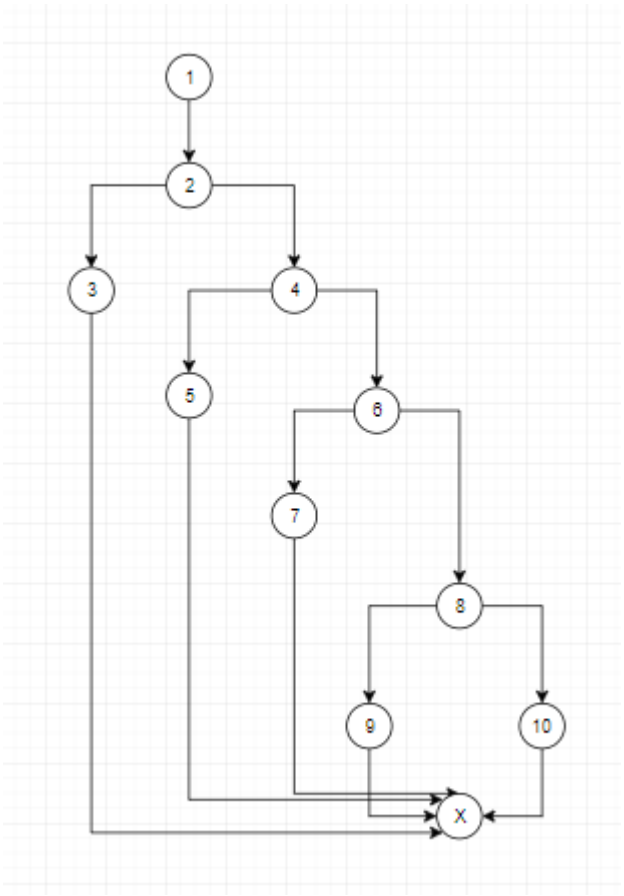

Fig 3

Cyclomatic complexity: 5

Independent paths:

- 1→2→3→X
- 1→2→4→5→X
- 1→2→4→5→6→7→X
- 1→2→4→6→8→9→X
- 1→2→4→6→8→10→X

System Testing

Test Case 2

Test Case Name: Sign-up **Short Description**: Unregistered users can sign-up			
Preconditions: 1. Sign-up page is displayed.			
Step	**Action**	**Expected System Response**	**Pass/Fail**
1	Enter name (“Vishal”) and phone number (“9513391184”).	The system stores name and phone number temporarily. The system checks for the validity of phone number such that it contains 10 digits.	Pass
2	Enter email id (“vchaturvedi25 @gmail.com”).	The system stores the email id temporarily. The system checks for the validity of email id accordingly.	Pass
3	Enter password (“iamthere”).	The system stores password temporarily. The system validates the password such that it contains 8-20 characters.	Pass
4	Click “SIGNUP” button	The system prompts the user whether sign-up request has been accepted or not.	Pass
5	Click “BACK” button	The system redirects user to login page.	Pass
6	Check Post Condition.		
Post Condition: 1. The user is registered to the database.			

c. UPDATE OR RESET PASSWORD

Snippet 1

```
ph = jTextField1.getText();                //1
id = jTextField2.getText();
char c1[] = jPasswordField1.getPassword();
npass = new String(c1);
char c2[] = jPasswordField2.getPassword();
cnpass = new String(c2);
if(ph.length()!=10)                //2
{
 jTextField1.setText("");                //3
 jDialog2.setVisible(true);
}
else if(npass.length()<8||npass.length()>20)            //4
{
 jDialog2.setVisible(true);                //5
}
else if(!npass.equals(cnpass))            //6
{
 jDialog2.setVisible(true);                //7
 jPasswordField1.setText("");
 jPasswordField2.setText("");
}
else
{
 try                //8
 {
 Class.forName("oracle.jdbc.driver.OracleDriver");            //9
 Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
 PreparedStatement ps = conn.prepareStatement("select * from registered where cust_id='"+id+"'
and phone ='"+ph+"'");
 ResultSet rs = null;
 rs = ps.executeQuery();
 if(rs.next())                //10
{
 System.out.println(npass+"   "+cnpass);                //11
 PreparedStatement ps1 = conn.prepareStatement("update registered set password = '"+npass+"'
where cust_id= '"+id+"'");
 ResultSet rs1 = null;
 rs1 = ps1.executeQuery();
 jDialog1.setVisible(true);
```

```
}
 else
{
 System.out.println(npass+"   "+cnpass);                    //12
 jDialog2.setVisible(true);
 }
 }
catch(Exception e)                    //13
{}
 }
```

Control Flow Graph:

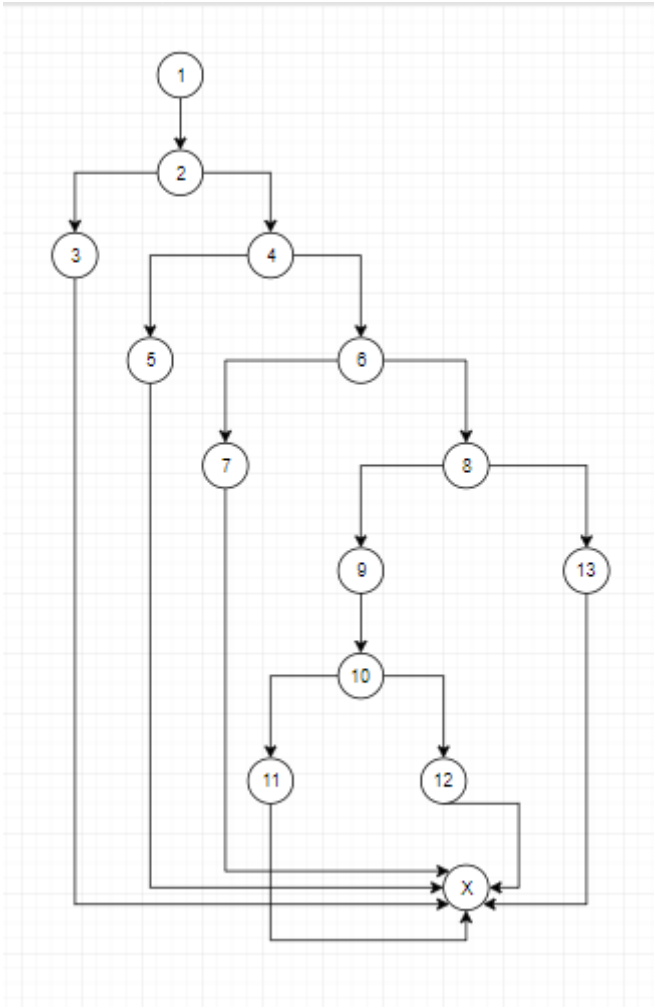

Fig 4

Cyclomatic complexity: 6

Independent paths:

- 1→2→3→X
- 1→2→4→5→X
- 1→2→4→6→7→X
- 1→2→4→6→8→9→10→11→X
- 1→2→4→6→8→9→10→12→X
- 1→2→4→6→8→13→X

System Testing

Test Case 3

Test Case Name: Update or reset password **Short Description**: User can reset the password			
Preconditions: 1. The user must have a valid account. 2. The system displays password reset page.			
Step	**Action**	**Expected System Response**	**Pass/Fail**
1	Enter phone number (“833385359”) and Customer Identification Number (“1”).	The system stores the phone number and Customer Identification Number temporarily.	Pass
2	Enter password (“iamhere2”).	The system stores password temporarily.	Pass
3	Re-enter password (“iamhere2”).	The system stores re-entered password temporarily. The previously entered password and re-entered password are checked for equality.	Pass
4	Click “SUBMIT” button	The system prompts the user about successful update or reset of password,	Pass
5	Click “GO TO LOGIN” button	The system redirects to login page.	Pass
6	Check Post Condition.		
Post Condition: 1. The password is updated or reset successfully.			

d. PRODUCT LISTING

Snippet 1

```
s = jComboBox1.getSelectedItem().toString();                    //1
switch(s)                    //2
{
 case "HONDA CITY":                    //3
 jLabel2.setIcon(img[2]);
 break;

 case "HONDA WR-V":                    //4
 jLabel2.setIcon(img[9]);
 break;

 case "HYUNDAI ELANTRA":                    //5
 jLabel2.setIcon(img[3]);
 break;

 case "HYUNDAI VERNA":                    //6
 jLabel2.setIcon(img[8]);
 break;

 case "MARUTI SUZUKI ALTO K10":                    //7
 jLabel2.setIcon(img[5]);
 break;

 case "MARUTI SUZUKI BALENO":                    //8
 jLabel2.setIcon(img[0]);
 break;

 case "MARUTI SUZUKI SWIFT":                    //9
 jLabel2.setIcon(img[7]);
 break;

 case "MARUTI SUZUKI VITARA BREZZA":                    //10
 jLabel2.setIcon(img[1]);
 break;

 case "SKODA OCTAVIA":                    //11
 jLabel2.setIcon(img[6]);
 break;
```

```
case "TOYOTA INNOVA CRYSTA":                    //12
jLabel2.setIcon(img[4]);
break;

default:                    //13
jLabel2.setIcon(img[10]);
}
```

Control Flow Graph:

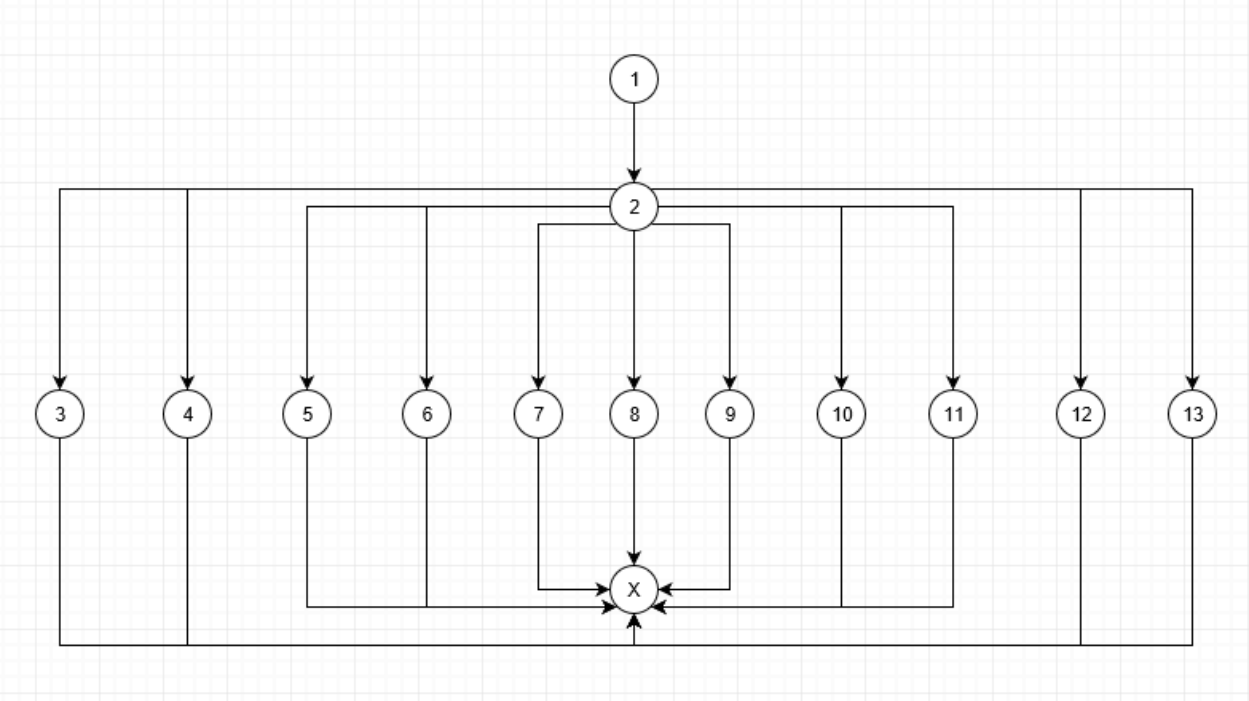

Fig 5

Cyclomatic complexity: 11

Independent paths:

- 1→2→3→X
- 1→2→4→X
- 1→2→5→X
- 1→2→6→X
- 1→2→7→X
- 1→2→8→X
- 1→2→9→X
- 1→2→10→X
- 1→2→11→X
- 1→2→12→X
- 1→2→13→X

Snippet 2

```
try                    //1
{
 Class.forName("oracle.jdbc.driver.OracleDriver");                    //2
 Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
 PreparedStatement ps = conn.prepareStatement("select * from car1 where cname='"+s+"'");
 ResultSet rs = null;
 rs = ps.executeQuery();
 if(rs.next())              //3
 {
 nam = rs.getString("cname");                    //4
 mil = rs.getString("mileage");
 seat = rs.getString("seat");
 cost = rs.getString("cost");
 type = rs.getString("type");
 }
}
catch(Exception e){ }                    //5
```

Control Flow Graph:

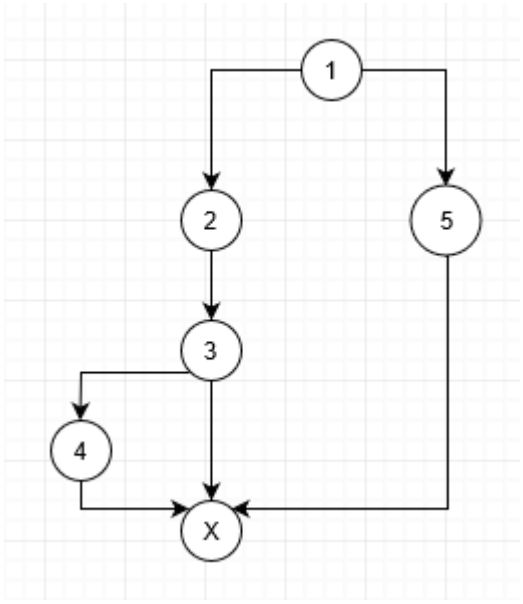

Fig 6

Cyclomatic complexity: 3

Independent paths:

- 1→2→3→X
- 1→2→3→4→X
- 1→5→X

Snippet 3

```
switch(s)                    //1
{
 case "HONDA CITY":                    //2
 car4_gallery c4 = new car4_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c4.setVisible(true);
 this.setVisible(false);
 break;

 case "HONDA WR-V":                    //3
 car10_gallery c10 = new car10_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c10.setVisible(true);
 this.setVisible(false);
 break;

 case "HYUNDAI ELANTRA":                    //4
 car3_gallery c3 = new car3_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c3.setVisible(true);
 this.setVisible(false);
 break;

 case "HYUNDAI VERNA":                    //5
 car9_gallery c9 = new car9_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c9.setVisible(true);
 this.setVisible(false);
 break;
 case "MARUTI SUZUKI ALTO K10":                    //6
 car6_gallery c6 = new car6_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c6.setVisible(true);
 this.setVisible(false);
 break;

 case "MARUTI SUZUKI BALENO":                    //7
 car2_gallery c2 = new car2_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c2.setVisible(true);
 this.setVisible(false);
 break;

 case "MARUTI SUZUKI SWIFT":                    //8
 car8_gallery c8 = new car8_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
 c8.setVisible(true);
 this.setVisible(false);
 break;
```

```
case "MARUTI SUZUKI VITARA BREZZA":                    //9
car1_gallery c1 = new car1_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
c1.setVisible(true);
this.setVisible(false);
break;

case "SKODA OCTAVIA":                    //10
car7_gallery c7 = new car7_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
c7.setVisible(true);
this.setVisible(false);
break;

case "TOYOTA INNOVA CRYSTA":                    //11
car5_gallery c5 = new car5_gallery(nam,mil,cost,seat,type, id, name, phn, eml);
c5.setVisible(true);
this.setVisible(false);
break;

default:                    //12
System.out.println("ENDED!!!");
}
```

Control Flow Graph:

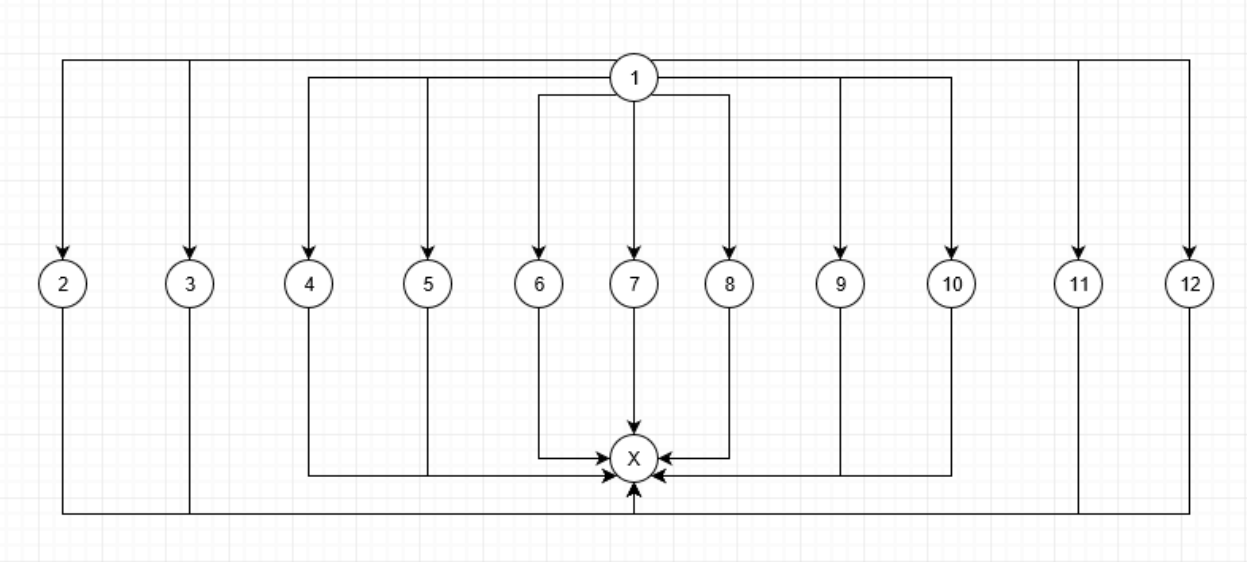

Fig 7

Cyclomatic complexity: 11

Independent paths:

- 1→2→X
- 1→3→X
- 1→4→X
- 1→5→X
- 1→6→X
- 1→7→X
- 1→8→X
- 1→9→X
- 1→10→X
- 1→11→X
- 1→12→X

System Testing

Test Case 4

Test Case Name: Product listing **Short Description**: User can view the listed products.			
Preconditions: 1. The user must have a valid account. 2. The system displays the product listing page.			
Step	**Action**	**Expected System Response**	**Pass/Fail**
1	Select an option from combo box ("HONDA CITY").	The system stores the selected string temporarily. The system displays the product using selected string.	Pass
2	Click "PROCEED" button.	The system opens the product page based on the selection.	Pass
3	Check Post Condition		
Post Condition: 1. The system displays the required product page.			

e. VIEW DATABASE(administrator)

Snippet 1

```
 DefaultTableModel model = new DefaultTableModel(new String[]{"Employee
ID","Name","Salary","Designation"},0);                    //1
 try                  //2
 {
  Class.forName("oracle.jdbc.driver.OracleDriver");            //3
  Connection conn=
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","ddas123");
  PreparedStatement ps = conn.prepareStatement("select * from employeedb");
  ResultSet rs = null;
  rs = ps.executeQuery();
  while(rs.next())                    //4
  {
   String eid = rs.getString("empid");              //5
   String nam = rs.getString("ename");
   String sal = rs.getString("salary");
   String des = rs.getString("post");
   model.addRow(new Object[]{eid,nam,sal,des});
  }
  emp.setModel(model);                      //6
  emp.setVisible(true);
  emppane.setVisible(true);
  registered.setVisible(false);
  registeredpane.setVisible(false);
  sales.setVisible(false);
  salespane.setVisible(false);
  track.setVisible(false);
  trackpane.setVisible(false);
 }
 catch(Exception e){}             //7
```

Control Flow Graph:

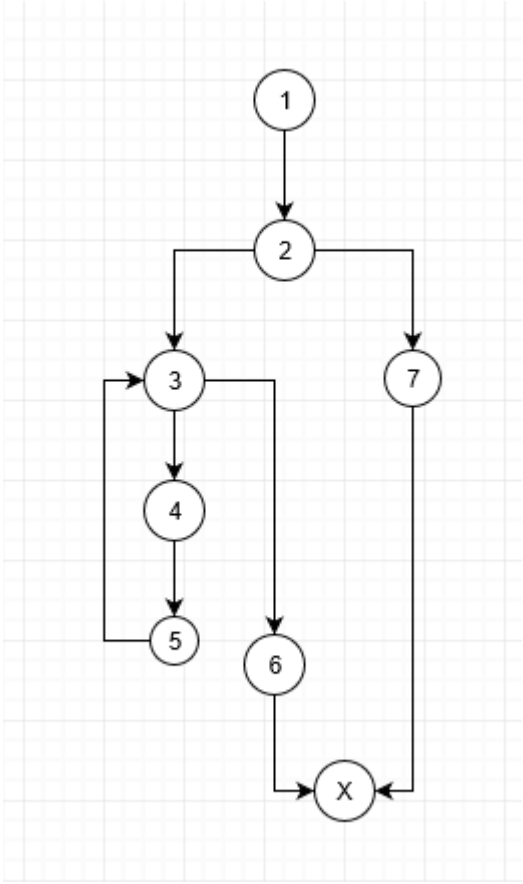

Fig 8

Cyclomatic complexity: 3

Independent paths:

- 1→2→3→4→5→3→6→X
- 1→2→3→6→X
- 1→2→7→X

System Testing

Test Case 5

Test Case Name: View database **Short Description**: Administrator can view the application data.			
Preconditions: 1. Administrator must be logged in. 2. System displays administrator options page.			
Step	**Action**	**Expected System Response**	**Pass/Fail**
1	Select the table name from combo box (“TRACK”).	The system stores the selected string temporarily. The system populates the table data using selected string.	Pass
2	Click “LOGOUT” button	The system redirects to login page.	Pass
3	Check Post Condition		
Post Condition: 1. Administrator views the required table.			