IfElseconcept.java

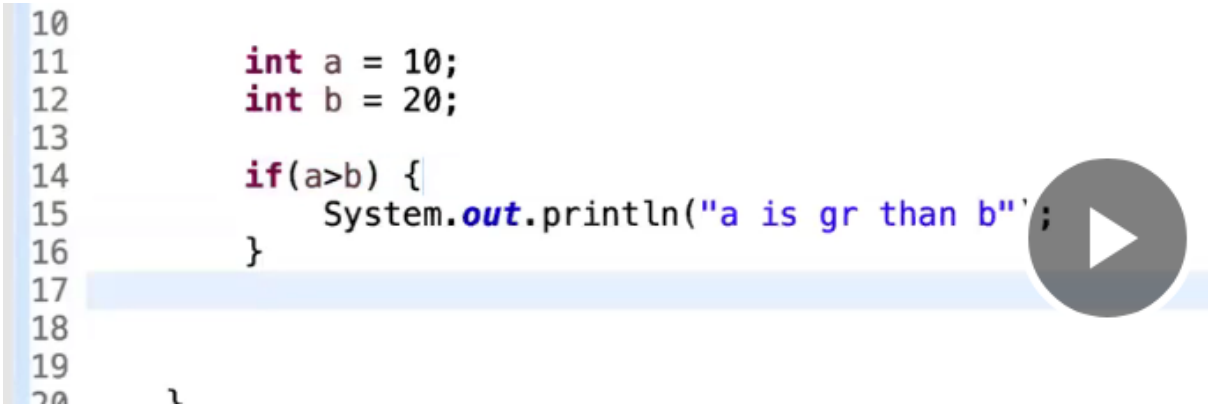
```
1 package javasessions;
2
3 public class IfElseconcept {
4
5     public static void main(String[] args) {
6
7
8         System.out.println(10==10);
9
10
11
```

True

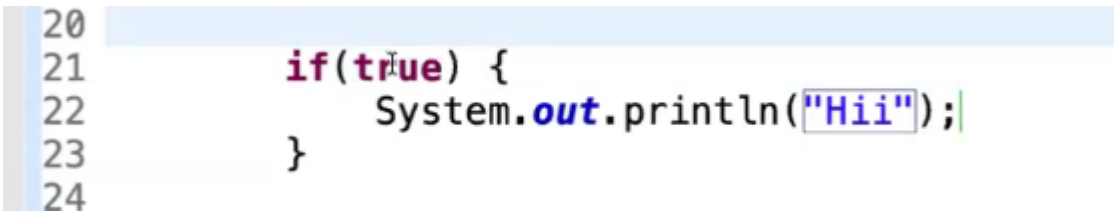
```
9
10
11          int a = 30;
12          int b = 20;
13
14          if(a>b) {
15              System.out.println("a is gr than b");
16          }
17          else {
18              System.out.println("b is gr than a");
19          }
20
21
22      }
```

```
a is gr than b
```

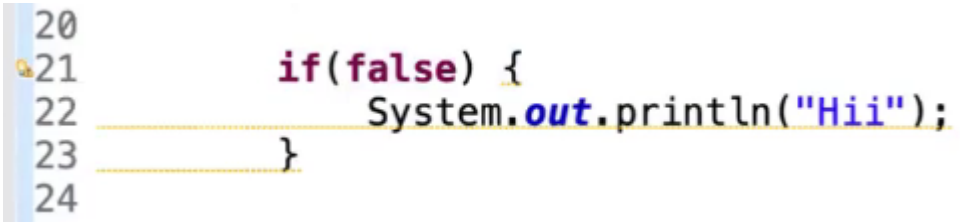
Else not mandatory-



We wont get output for the above condition check.--blank output.



Hii



Nothing printed.

Line 22 is dead code as that line will never run.

```
20
21          if(true) {
22              System.out.println("Hii");
23          }
24          else {//dead code
25              System.out.println("bye");
26          }
27
```

Hii.

```
20
21          if(false) {
22              System.out.println("Hii");
23          }
24          else {//dead code
25              System.out.println("bye");
26          }
27
```

bye

good way-

```
27
28          boolean flag = true;
29          if(flag) {
30              System.out.println("Hello");
31          }
32          else {
33              System.out.println("Bye!!");
34          }
```

Hello.

```
27
28          boolean flag = false;
29          if(flag) {
30              System.out.println("Hello");
31          }
32          else {
33              System.out.println("Bye!!");
34          }
35
36
```

Bye

This is the correct way of writing.

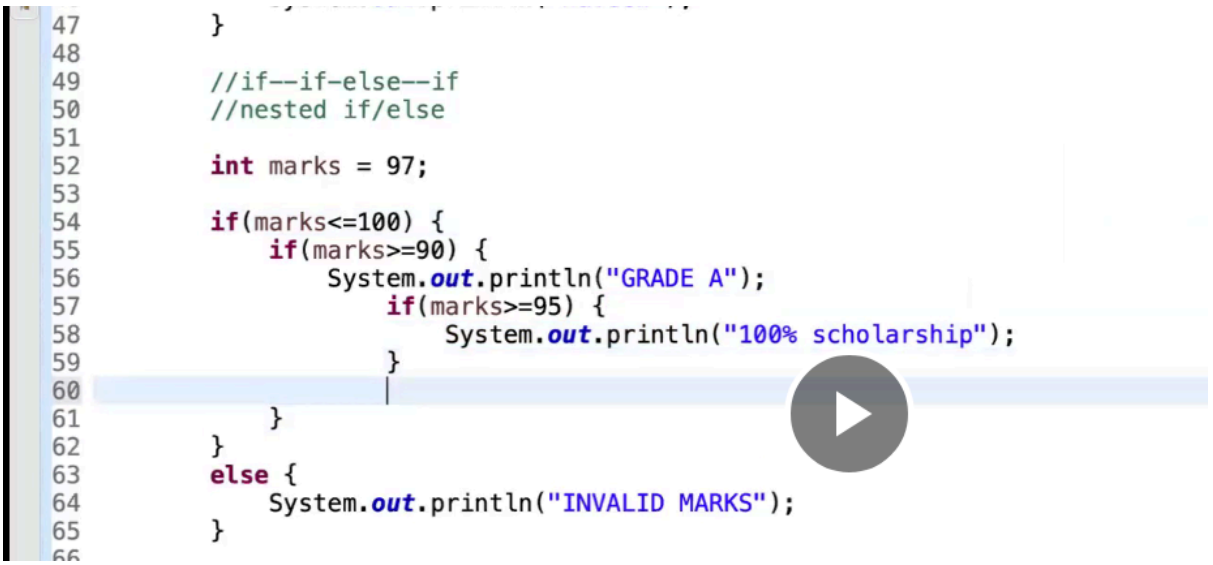
Never hard code true or false inside the if block.

```
36          boolean isHeadLess = true;
37          if(isHeadLess) {
38              System.out.println("run tc is headless");
39          }
40          else {
41              System.out.println("run tc is normal mode");
42          }
```

if block runs.

```
44
45          if(10>5) {
46              System.out.println("naveen");
47          }
```

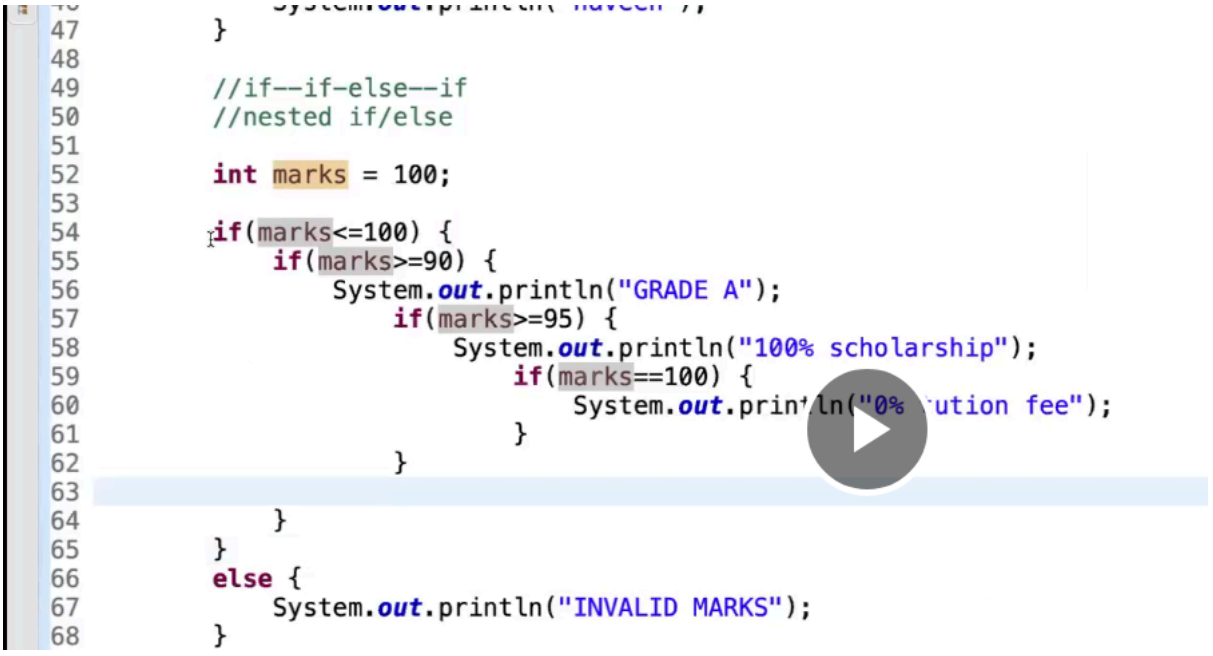
naveen



```
47          }
48
49          //if--if-else--if
50          //nested if/else
51
52          int marks = 97;
53
54          if(marks<=100) {
55              if(marks>=90) {
56                  System.out.println("GRADE A");
57                      if(marks>=95) {
58                          System.out.println("100% scholarship");
59                      }
60
61              }
62          }
63          else {
64              System.out.println("INVALID MARKS");
65          }
66
```

grade A

100% scholarship.



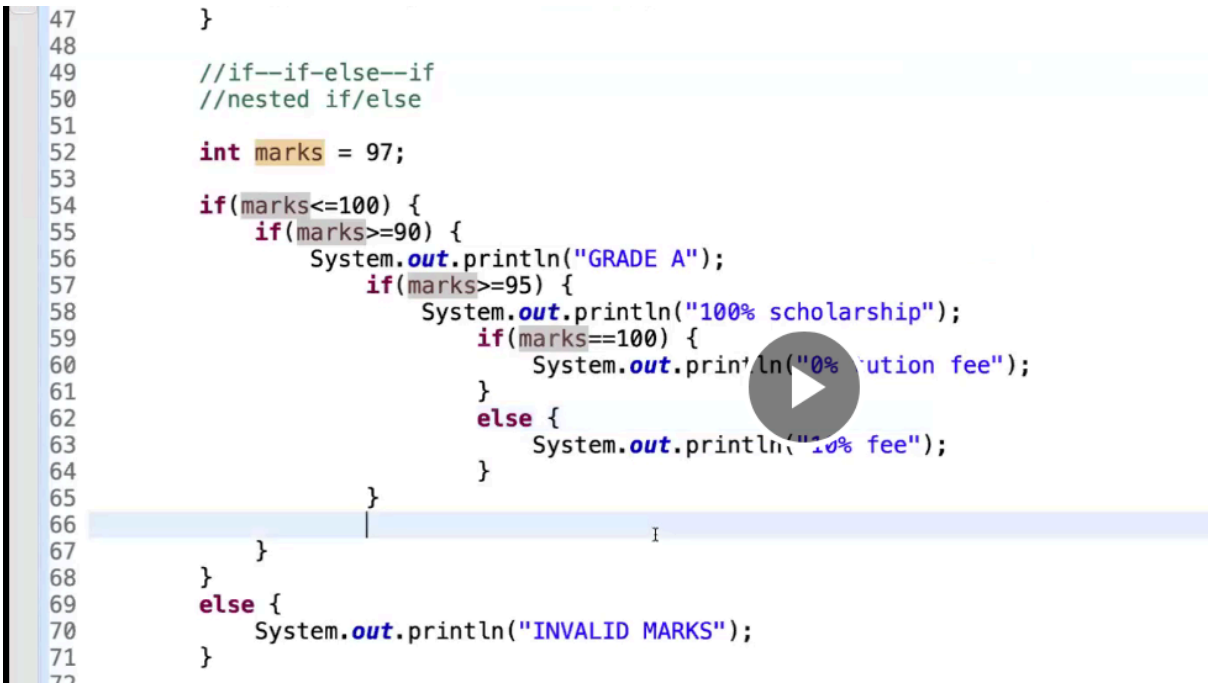
```
47          }
48
49          //if--if-else--if
50          //nested if/else
51
52          int marks = 100;
53
54          if(marks<=100) {
55              if(marks>=90) {
56                  System.out.println("GRADE A");
57                      if(marks>=95) {
58                          System.out.println("100% scholarship");
59                              if(marks==100) {
60                                  System.out.println("0% tution fee");
61                              }
62                      }
63
64              }
65          }
66          else {
67              System.out.println("INVALID MARKS");
68          }
```

grade a

100 percent scholarship

0 percent tuition fee.

same code-



```
47          }
48
49          //if--if-else--if
50          //nested if/else
51
52          int marks = 97;
53
54          if(marks<=100) {
55              if(marks>=90) {
56                  System.out.println("GRADE A");
57                      if(marks>=95) {
58                          System.out.println("100% scholarship");
59                              if(marks==100) {
60                                  System.out.prin'ln("0% ution fee");
61                              }
62                              else {
63                                  System.out.println("1 % fee");
64                              }
65                      }
66
67              }
68          }
69          else {
70              System.out.println("INVALID MARKS");
71          }
```

Note-

Compare primitive data type use ==.

Non primitive data type compare using .equals()

```java
//if-elseif-elseif-else
String browser = "chrome";

if(browser.equals("chrome")) {
    System.out.println("chrome is launched");
}
if(browser.equals("firefox")) {
    System.out.println("ff is launched");
}
if(browser.equals("edge")) {
    System.out.println("edge is launched");
}
if(browser.equals("ie")) {
    System.out.println("ie is launched");
}
else {
    System.out.println("plz pass the right browser : " + browser);
}
```

```
chrome is launched
plz pass the right browser : chrome
```

This is because last if condition not satisfied so else also executed.

```java
String browser = "chrome";

if(browser.equals("chrome")) {
    System.out.println("chrome is launched");
}
else if(browser.equals("firefox")) {
    System.out.println("firefox is launched");
}
else if(browser.equals("edge")) {
    System.out.println("edge is launched");
}
else if(browser.equals("ie")) {
    System.out.println("ie is launched");
}
else {
    System.out.println("plz pass the right browser : " + browser);
}
```

Chrome is launched.

Switch case-

Two case cannot have same name.

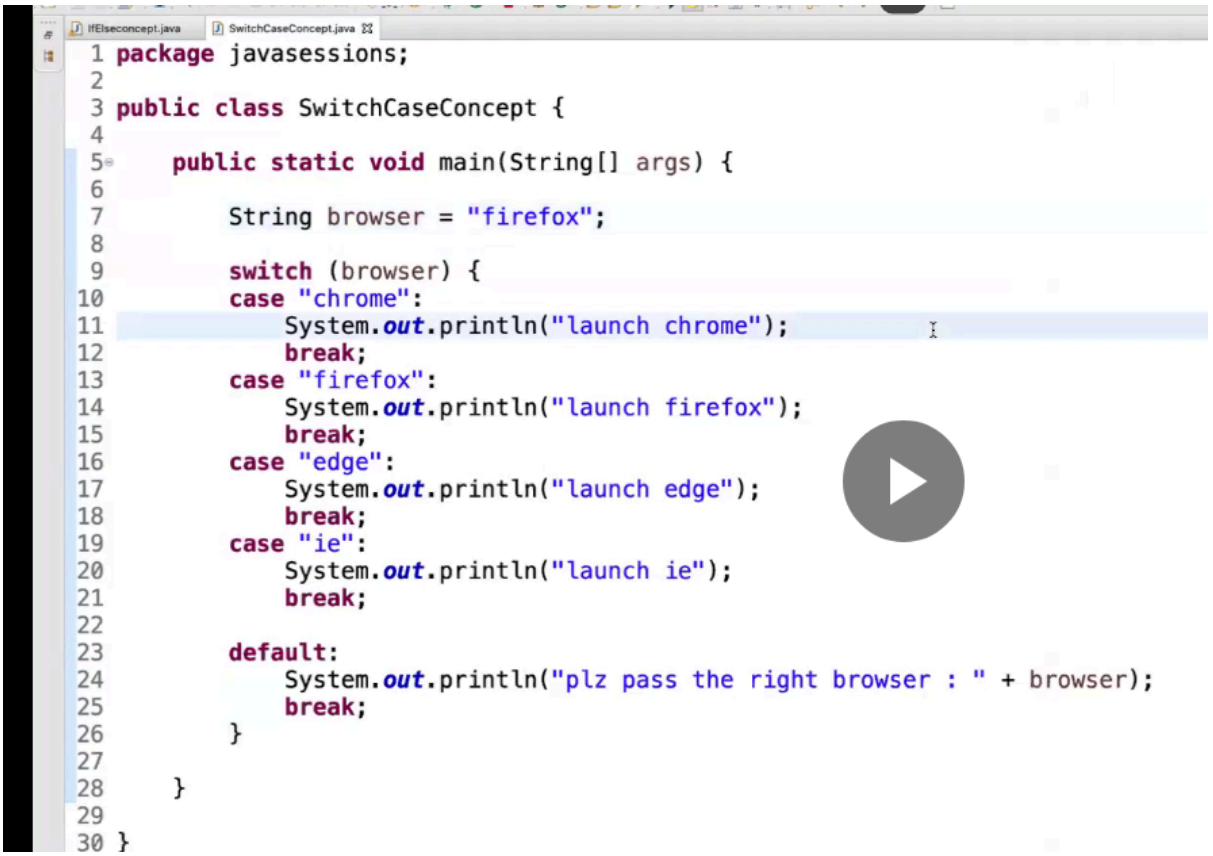
write switch 1 code-

/com/day5/switch1.java

gate Search Project Run Window Help

switch1.java

```java
package com.day5;

public class switch1 {

    public static void main(String[] args) {

        //Switch case better performance than if else as all cases wont be checked.
//      Two case cannot have same name.

        String browser = "chrome";

        switch (browser) {
        case "chrome":
            System.out.println("open chrome");
            break;
        case "chrome": //Duplicate case
            System.out.println("open chrome");
            break;

        default:
            break;
        }

    }

}
```



IfElseconcept.java SwitchCaseConcept.java

```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        String browser = "firefox";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;
        }

    }

}
```

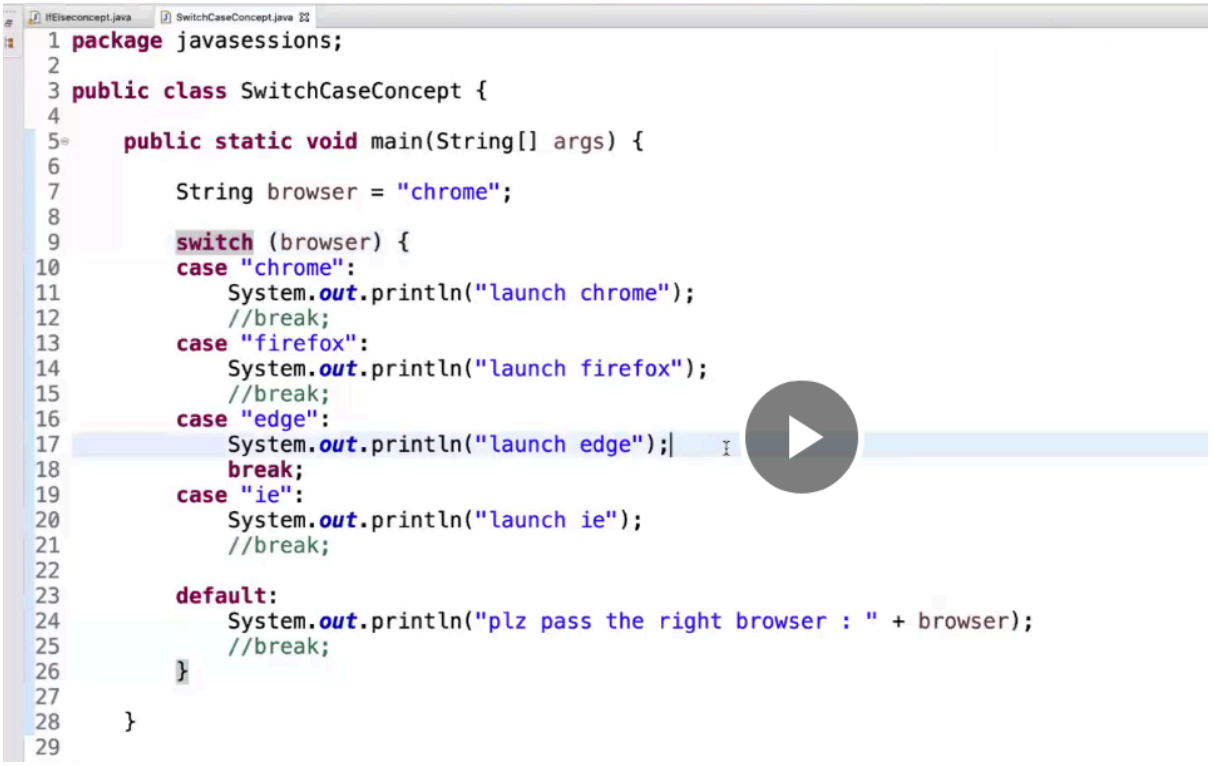
Switch case better performance than if else as all cases wont be checked.

Without break-

```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        String browser = "chrome";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            //break;
        case "firefox":
            System.out.println("launch firefox");
            //break;
        case "edge":
            System.out.println("launch edge");
            //break;
        case "ie":
            System.out.println("launch ie");
            //break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            //break;
        }

    }

}
```

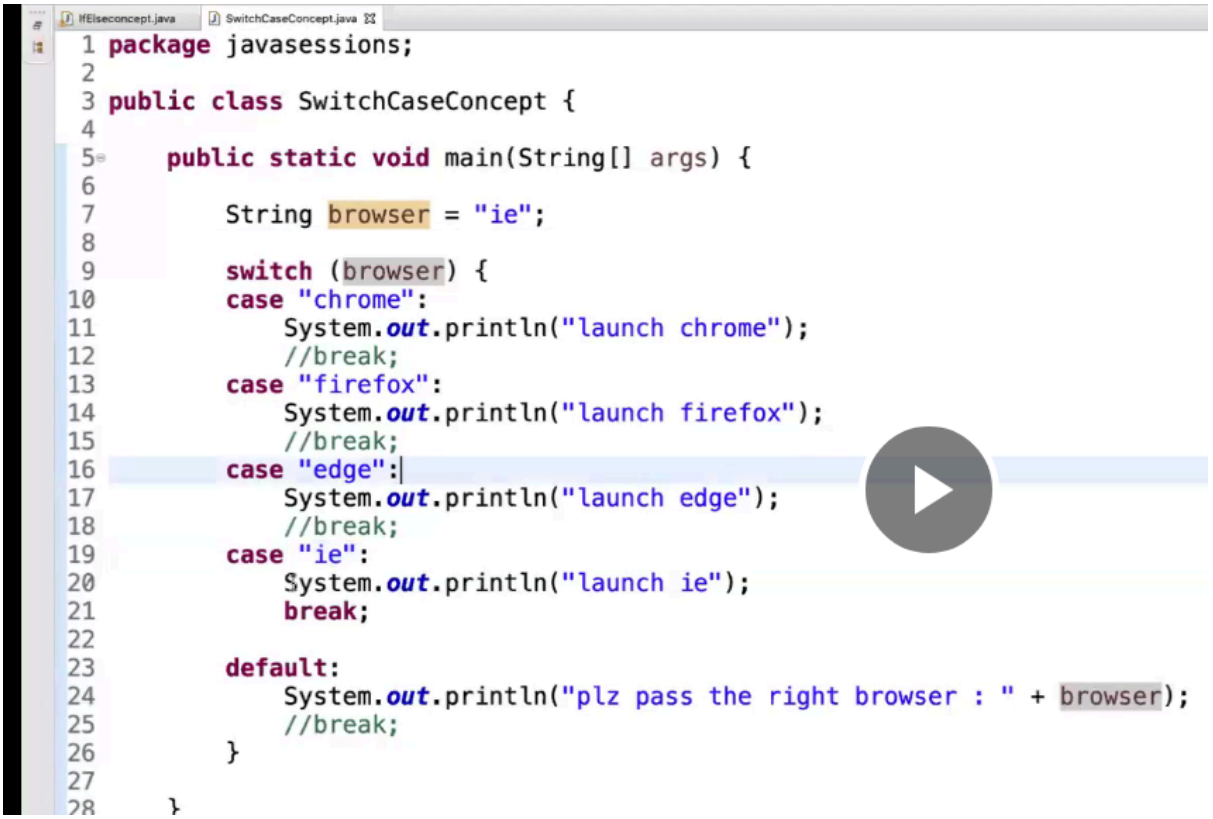
```
<terminated> SwitchCaseConcept (4) [Java Application] /Users/naveenautomationlabs/.p2/pool/plugins/org.eclips
launch chrome
launch firefox
launch edge
launch ie
plz pass the right browser : chrome
```

Break added somewhere in between-

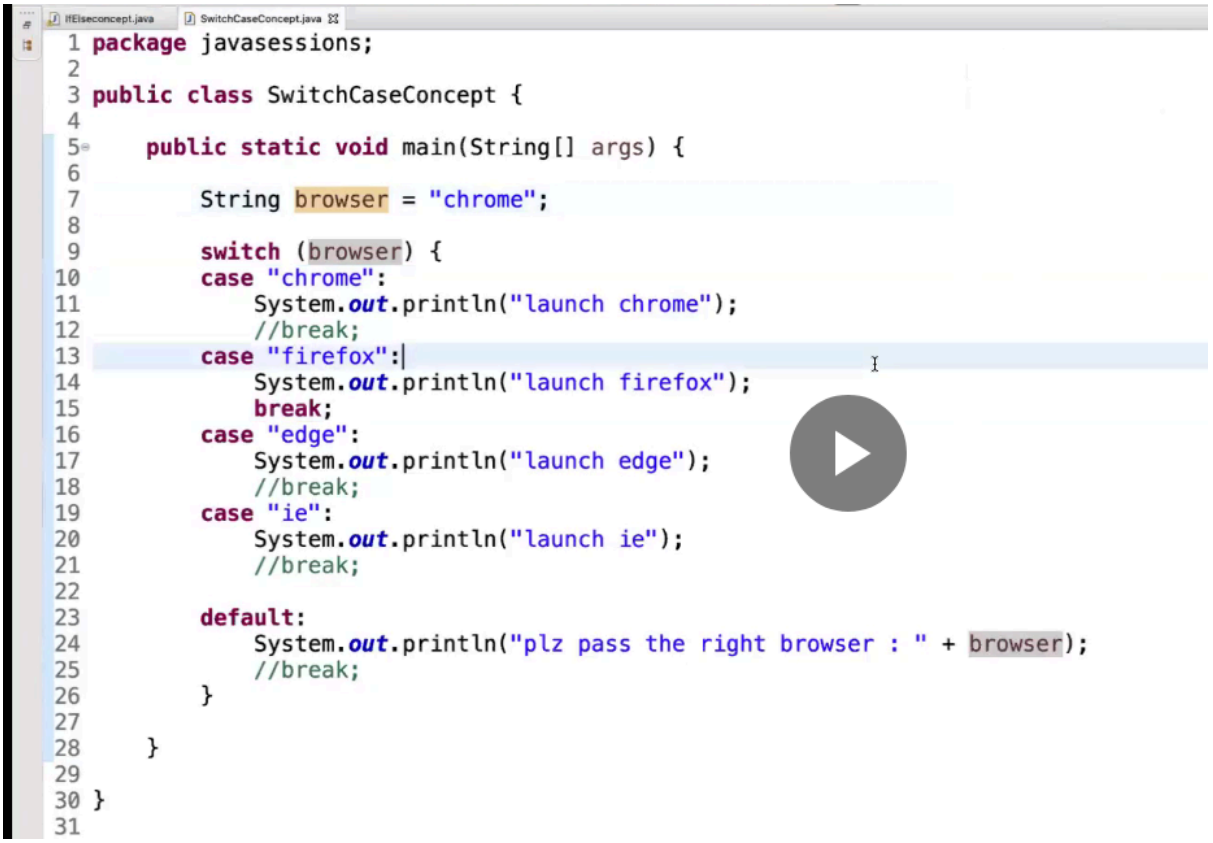


```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        String browser = "chrome";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            //break;
        case "firefox":
            System.out.println("launch firefox");
            //break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            //break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            //break;
        }

    }

}
```

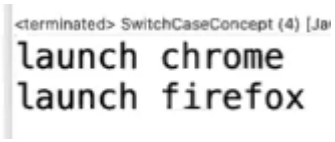
```
<terminated> SwitchCaseConcept (4) [Java A
launch chrome
launch firefox
launch edge
```


IfElseconcept.java
SwitchCaseConcept.java
1 package javasessions;
2
3 public class SwitchCaseConcept {
4
5 public static void main(String[] args) {
6
7 String browser = "ie";
8
9 switch (browser) {
10 case "chrome":
11 System.out.println("launch chrome");
12 //break;
13 case "firefox":
14 System.out.println("launch firefox");
15 //break;
16 case "edge":
17 System.out.println("launch edge");
18 //break;
19 case "ie":
20 System.out.println("launch ie");
21 break;
22
23 default:
24 System.out.println("plz pass the right browser : " + browser);
25 //break;
26 }
27
28 }

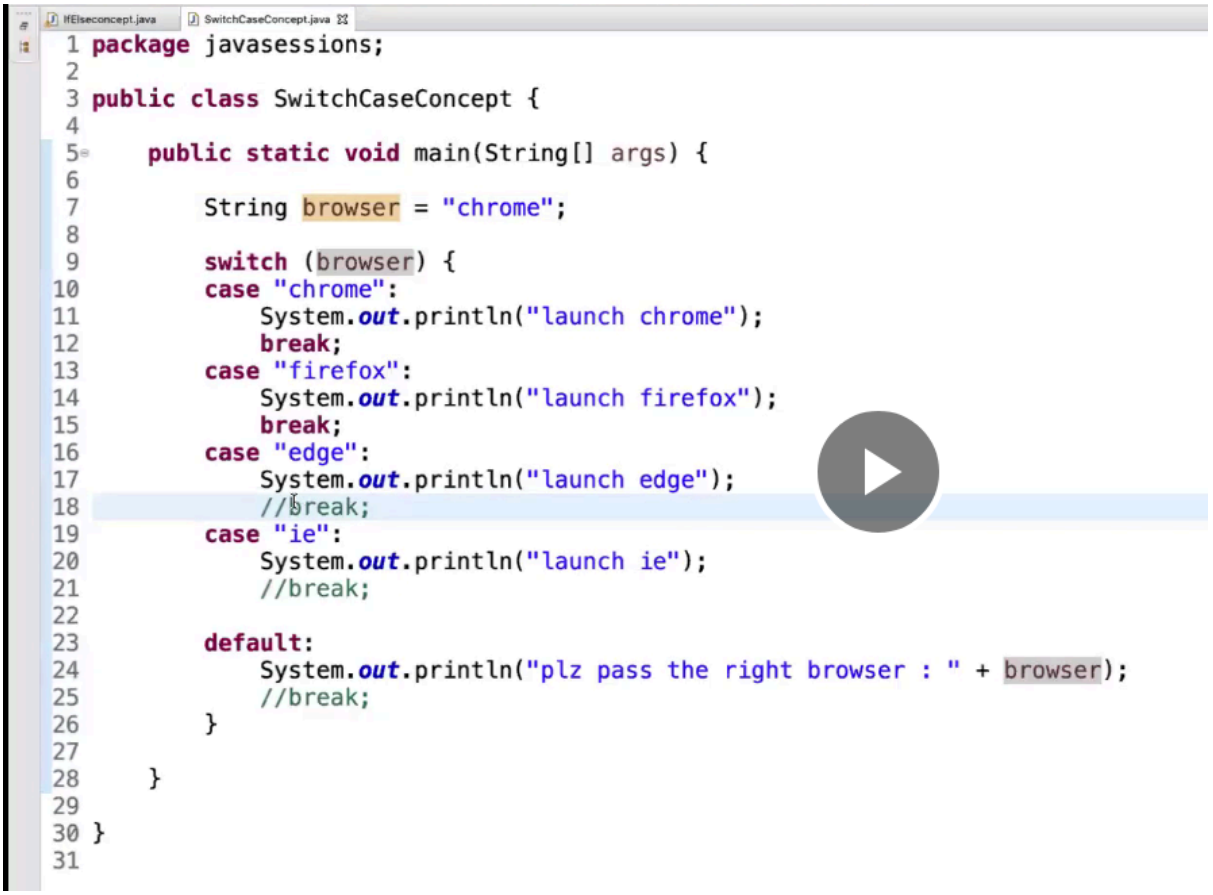

<terminated> SwitchCaseConcept
launch ie



```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        String browser = "chrome";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            //break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            //break;
        case "ie":
            System.out.println("launch ie");
            //break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            //break;
        }

    }

}
```



```
<terminated> SwitchCaseConcept (4) [Ja
launch chrome
launch firefox
```



```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        String browser = "chrome";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            //break;
        case "ie":
            System.out.println("launch ie");
            //break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            //break;
        }

    }

}
```

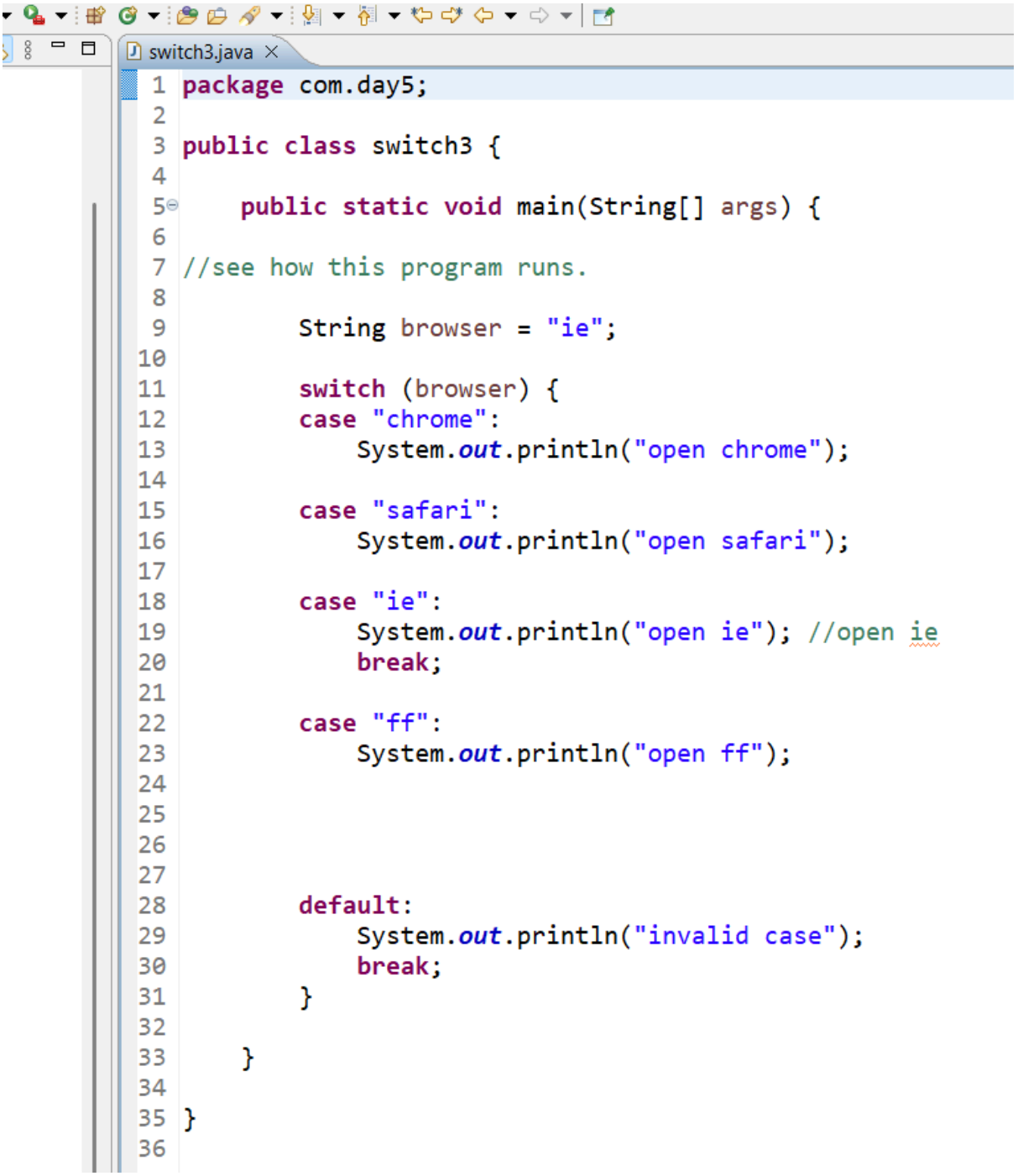
```
<terminated> SwitchCaseConcept (4) [J
launch chrome
```

Break not eligible for if else-

```
76
77
78          //if-elseif-elseif-else
79          String browser = "chrome";
80
81          if(browser.equals("chrome")) {
82              System.out.println("chrome is launched");
83              break;
84          }
85          if(browser.equals("firefox")) {
86              System.out.println("ff is launched");
87          }
88          if(browser.equals("edge")) {
89              System.out.println("edge is launched");
90          }
91          if(browser.equals("ie")) {
92              System.out.println("ie is launched");
93          }
94          else {
95              System.out.println("plz pass the right browser : " + browser);
96          }
97
98  //      String browser = "opera";
```

```
96
97          String browser = "firefox";
98
99          if(browser.equals("chrome")) {
100             System.out.println("chrome is launched");
101         }
102         else if(browser.equals("firefox")) {
103             System.out.println("firefox is launched");
104             break;
105         }
106         else if(browser.equals("edge")) {
107             System.out.println("edge is launched");
108         }
109         else if(browser.equals("ie")) {
110             System.out.println("ie is launched");
111         }
112         else {
113             System.out.println("plz pass the right browser : " + browser);
114         }
115
116
```

paste switch3–



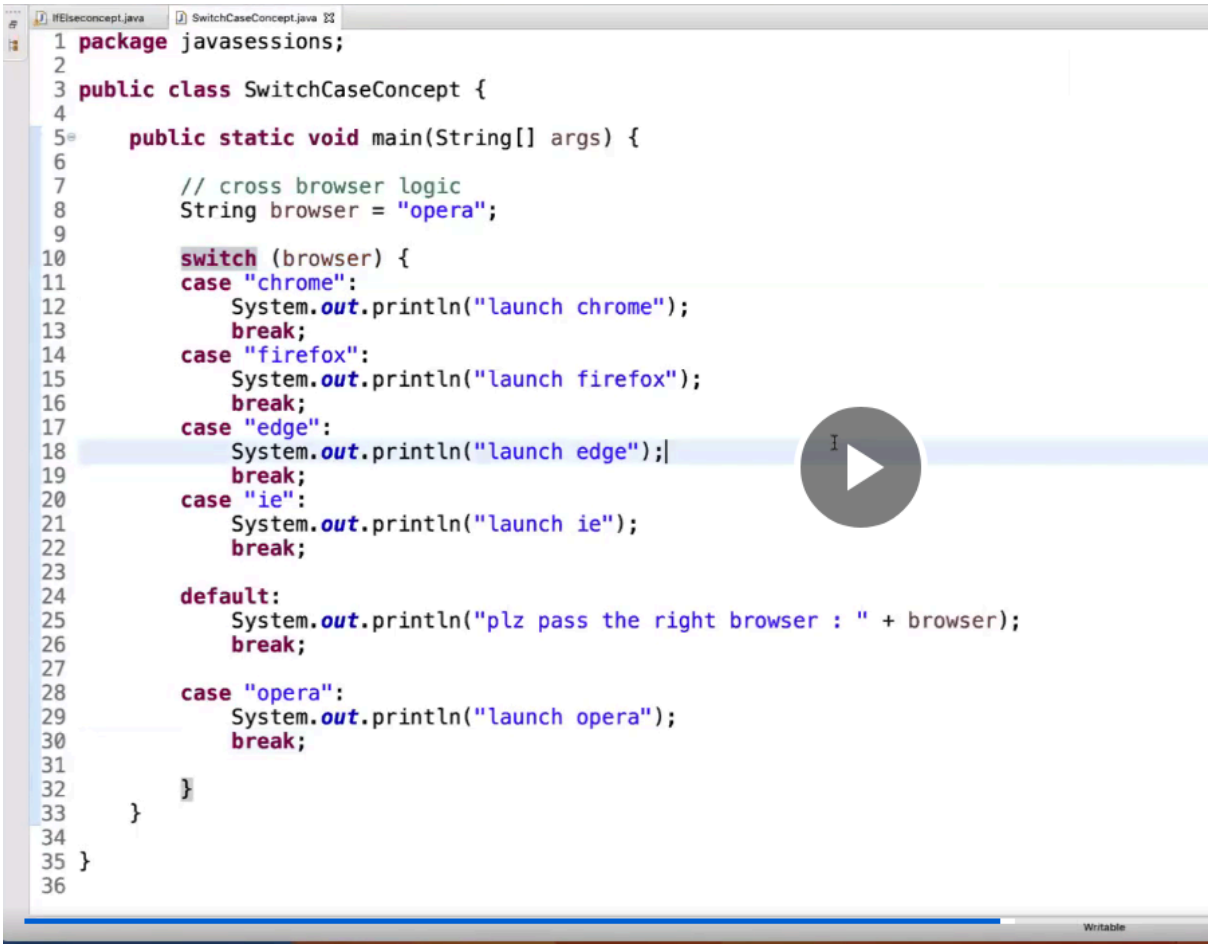
switch3.java

```
1  package com.day5;
2
3  public class switch3 {
4
5      public static void main(String[] args) {
6
7  //see how this program runs.
8
9          String browser = "ie";
10
11         switch (browser) {
12         case "chrome":
13             System.out.println("open chrome");
14
15         case "safari":
16             System.out.println("open safari");
17
18         case "ie":
19             System.out.println("open ie"); //open ie
20             break;
21
22         case "ff":
23             System.out.println("open ff");
24
25
26
27
28         default:
29             System.out.println("invalid case");
30             break;
31         }
32
33     }
34
35 }
36
```

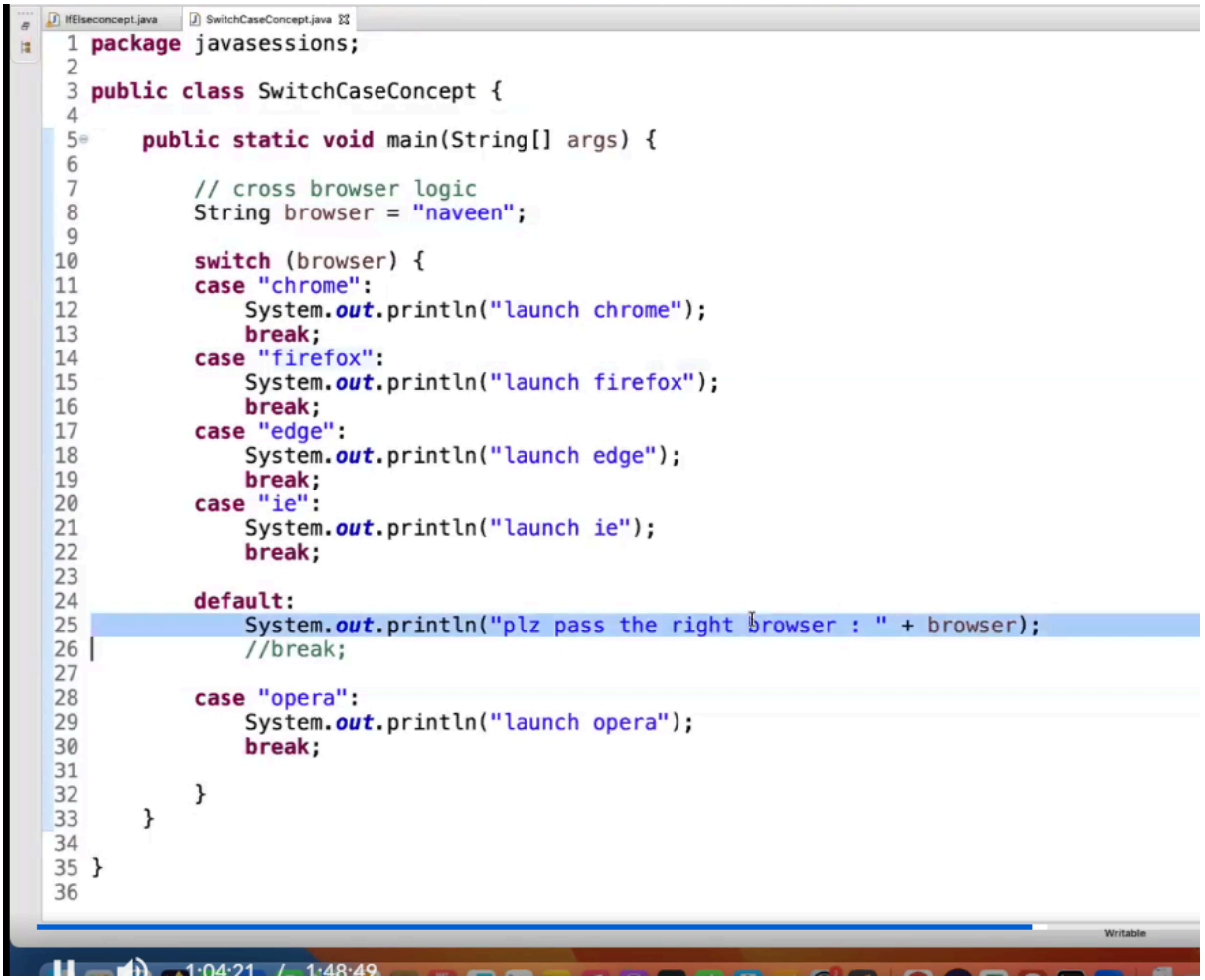
Break only for loops. For, while, do while, switch case.

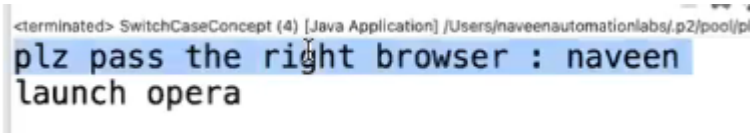
Launch opera.

Default need not be last one.



even default need not have break–





Case cannot have conditions-

paste switch6 –

switch6.java

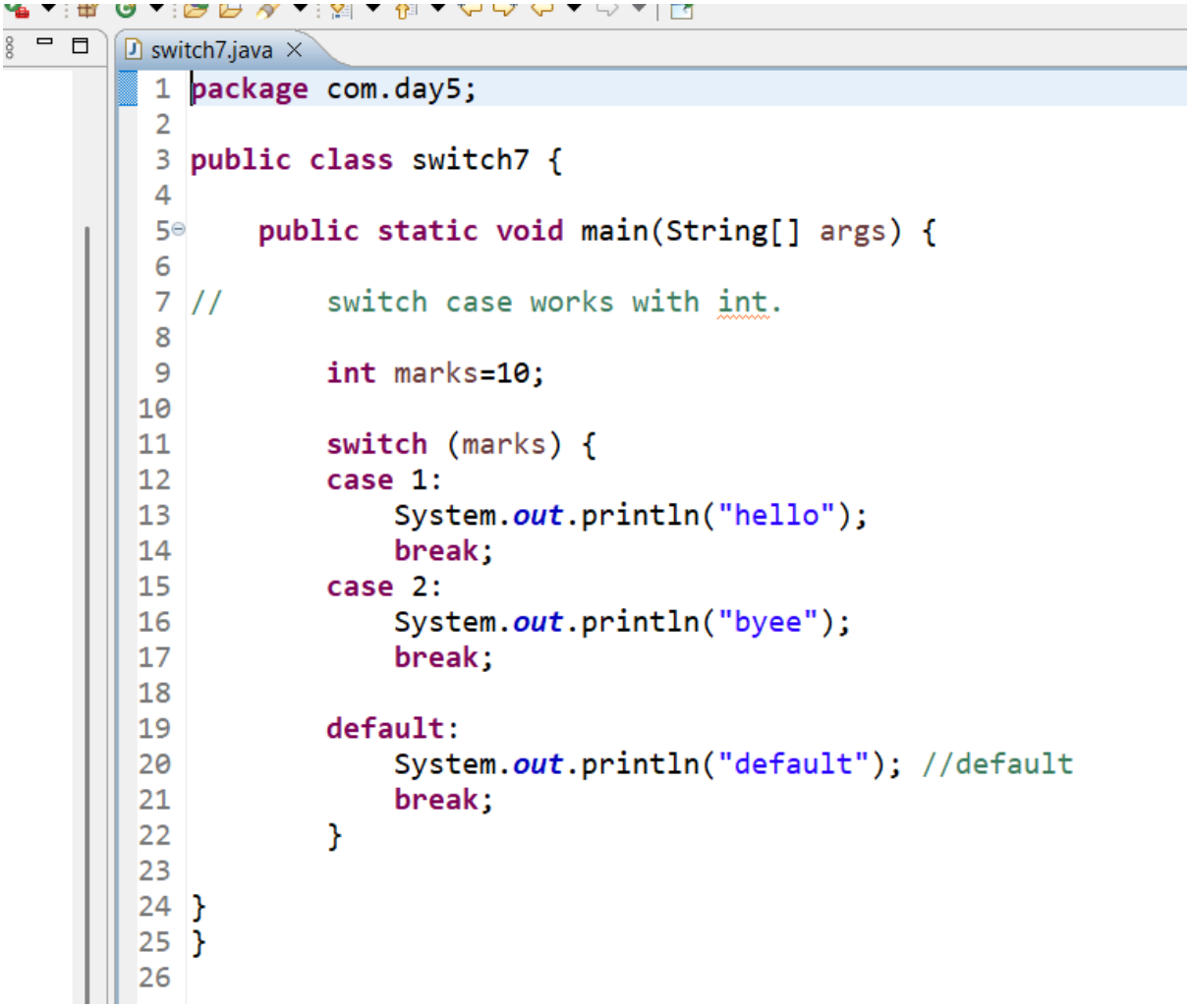
```java
package com.day5;

public class switch6 {

    public static void main(String[] args) {

//case cannot have conditions.

        int marks=100;

        switch(marks) {
        case marks>100; //Case constant of type boolean is incompatible with switch selector type int
        System.out.println("hello");
        }

    }

}

```

```java
        // 1 to 100
        int marks = 100;
        switch (marks) {
        case marks<90:

            break;
        case 2:

            break;
        case 3:

            break;

        default:
            break;
        }

    }

}
```

Switch case can also have numbers.

Switch can have any int numbers, except long. No float and no double allowed. String allowed.

switch 7 to 12 paste –



switch7.java | switch8.java

```java
package com.day5;

public class switch8 {

    public static void main(String[] args) {

//      switch case works with short.

        short marks=10;

        switch (marks) {
        case 1:
            System.out.println("hello");
            break;
        case 2:
            System.out.println("byee");
            break;

        default:
            System.out.println("default"); //default
            break;
        }

}
}

```

switch7.java | switch8.java | switch9.java

```java
package com.day5;

public class switch9 {

    public static void main(String[] args) {

//      switch case works with byte.

        byte marks=10;

        switch (marks) {
        case 1:
            System.out.println("hello");
            break;
        case 2:
            System.out.println("byee");
            break;

        default:
            System.out.println("default"); //default
            break;
        }

}
}

```

switch7.java | switch8.java | switch9.java | switch10.java

```java
package com.day5;

public class switch10 {

    public static void main(String[] args) {

//      switch case cannot work with long.

        long marks=10L;

        switch (marks) { //Cannot switch on a value of type long. Only convertible int values,
//      strings or enum variables are permitted
        case 1:
            System.out.println("hello");
            break;
        case 2:
            System.out.println("byee");
            break;

        default:
            System.out.println("default"); //default
            break;
        }

}
}

```

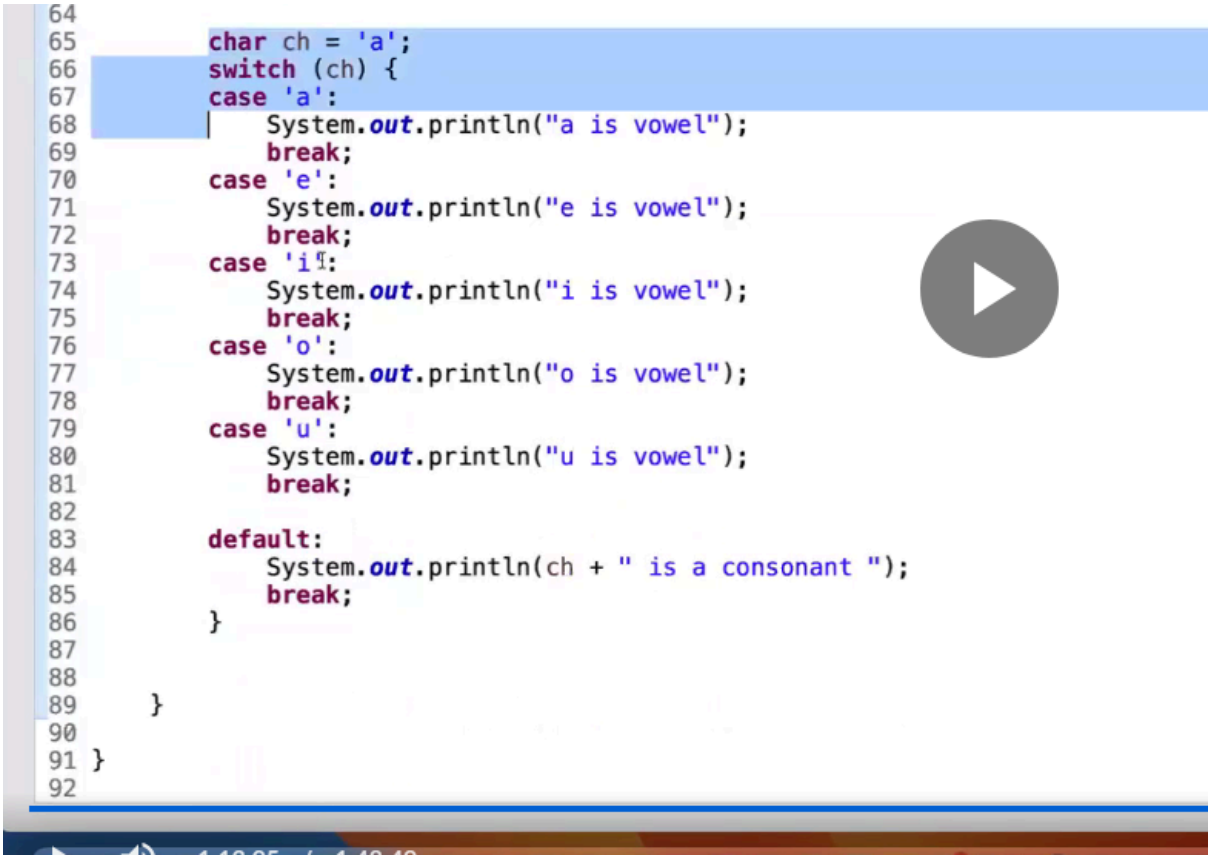
switch7.java | switch8.java | switch9.java | switch10.java | switch11.java

```java
package com.day5;

public class switch11 {

    public static void main(String[] args) {

//      switch case cannot work with float.

        float marks=10.67f;

        switch (marks) { //Cannot switch on a value of type float. Only convertible int
//      values, strings or enum variables are permitted
        case 1:
            System.out.println("hello");
            break;
        case 2:
            System.out.println("byee");
            break;

        default:
            System.out.println("default"); //default
            break;
        }

}
}
```

switch7.java | switch8.java | switch9.java | switch10.java | switch11.java | switch12.java

```java
package com.day5;

public class switch12 {

    public static void main(String[] args) {

//      switch case cannot work with double.

        double marks=10.67;

        switch (marks) { //Cannot switch on a value of type double. Only
//      convertible int values, strings or enum variables are permitted
        case 1:
            System.out.println("hello");
            break;
        case 2:
            System.out.println("byee");
            break;

        default:
            System.out.println("default"); //default
            break;
        }

}
}
```

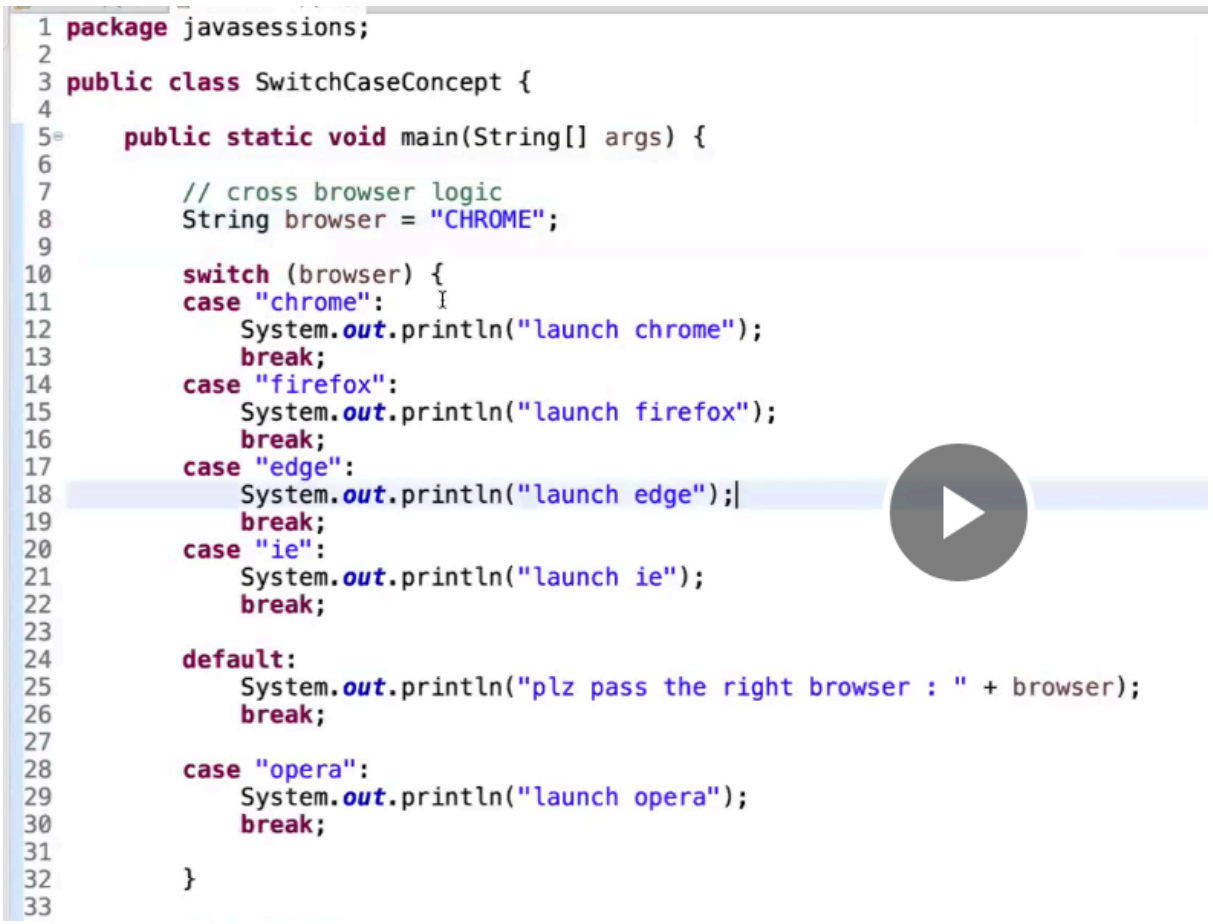
Char allowed-



```
64
65          char ch = 'a';
66          switch (ch) {
67          case 'a':
68              System.out.println("a is vowel");
69              break;
70          case 'e':
71              System.out.println("e is vowel");
72              break;
73          case 'i':
74              System.out.println("i is vowel");
75              break;
76          case 'o':
77              System.out.println("o is vowel");
78              break;
79          case 'u':
80              System.out.println("u is vowel");
81              break;
82
83          default:
84              System.out.println(ch + " is a consonant ");
85              break;
86          }
87
88
89      }
90
91  }
92
```

a is vowel.

Case sensitive-



```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        // cross browser logic
        String browser = "CHROME";

        switch (browser) {
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;

        case "opera":
            System.out.println("launch opera");
            break;

        }

```

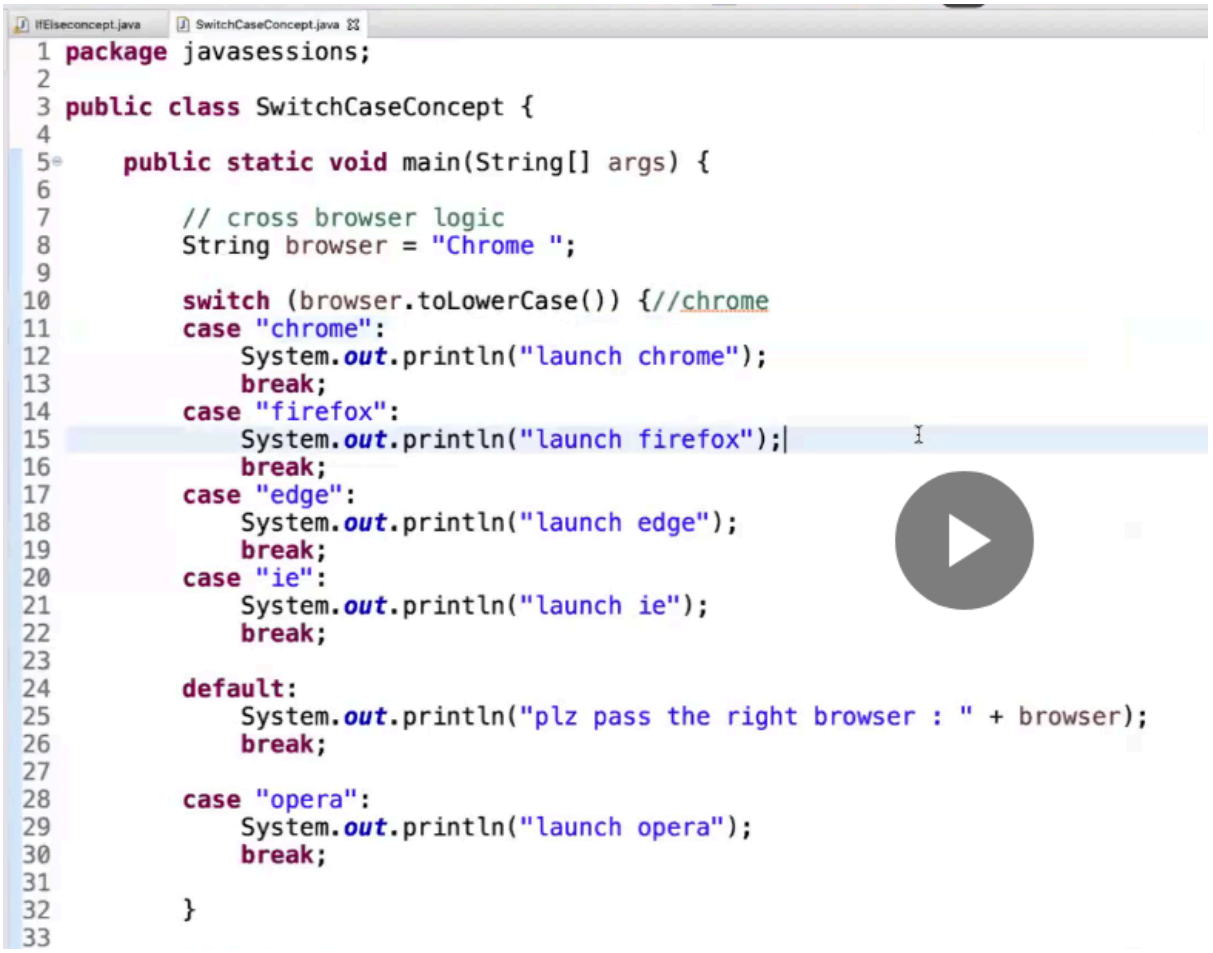
Output is from default case.

To lower case-

IfElseconcept.java SwitchCaseConcept.java

```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        // cross browser logic
        String browser = "CHROME";

        switch (browser.toLowerCase()) {//chrome
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;

        case "opera":
            System.out.println("launch opera");
            break;

        }

```

Space in words-

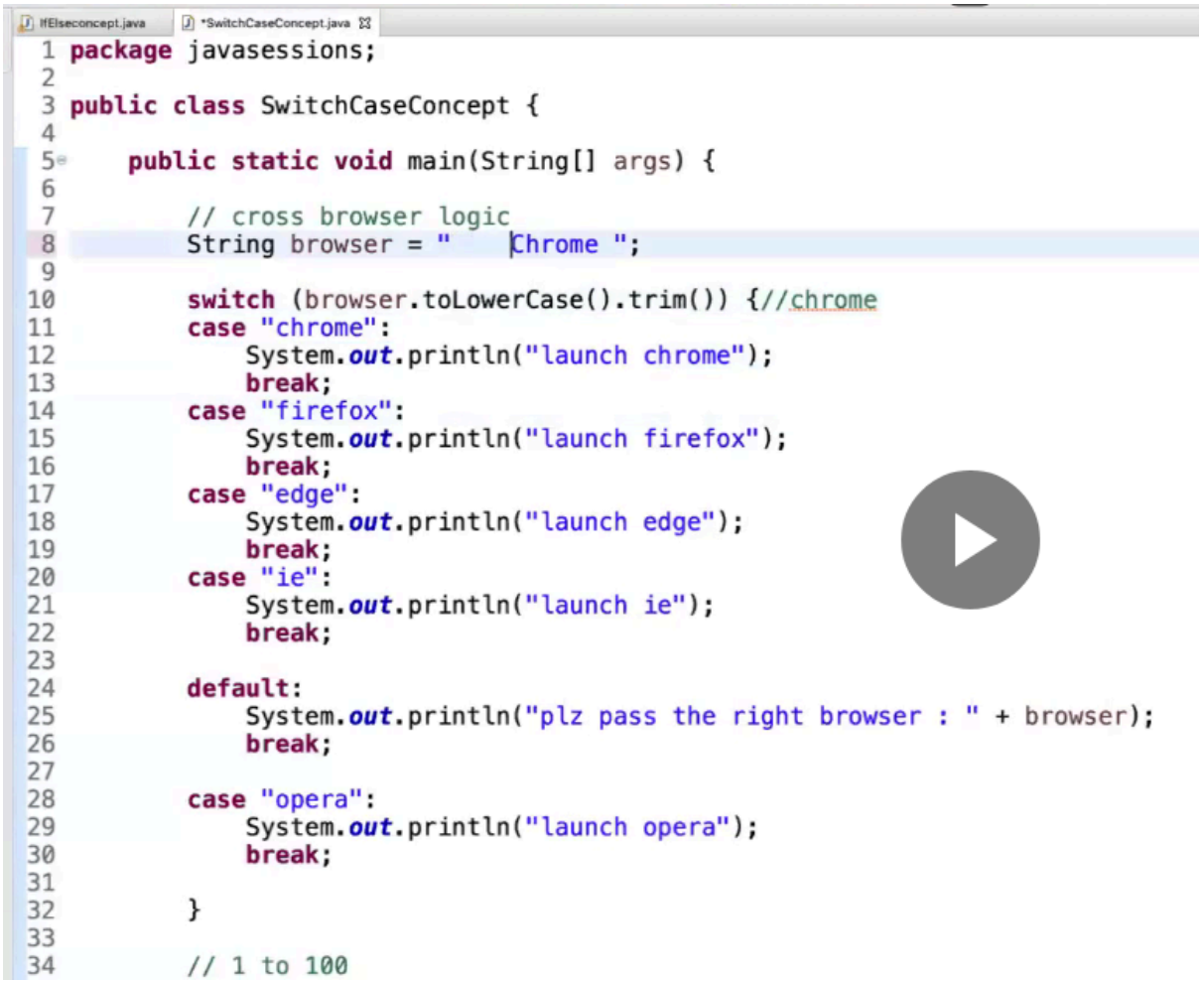


```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        // cross browser logic
        String browser = "Chrome ";

        switch (browser.toLowerCase()) {//chrome
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;

        case "opera":
            System.out.println("launch opera");
            break;

        }
```

Default case is printed.

Trim-

Remove corner spaces.



```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        // cross browser logic
        String browser = "    Chrome ";

        switch (browser.toLowerCase().trim()) {//chrome
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;

        case "opera":
            System.out.println("launch opera");
            break;

        }

        // 1 to 100
```

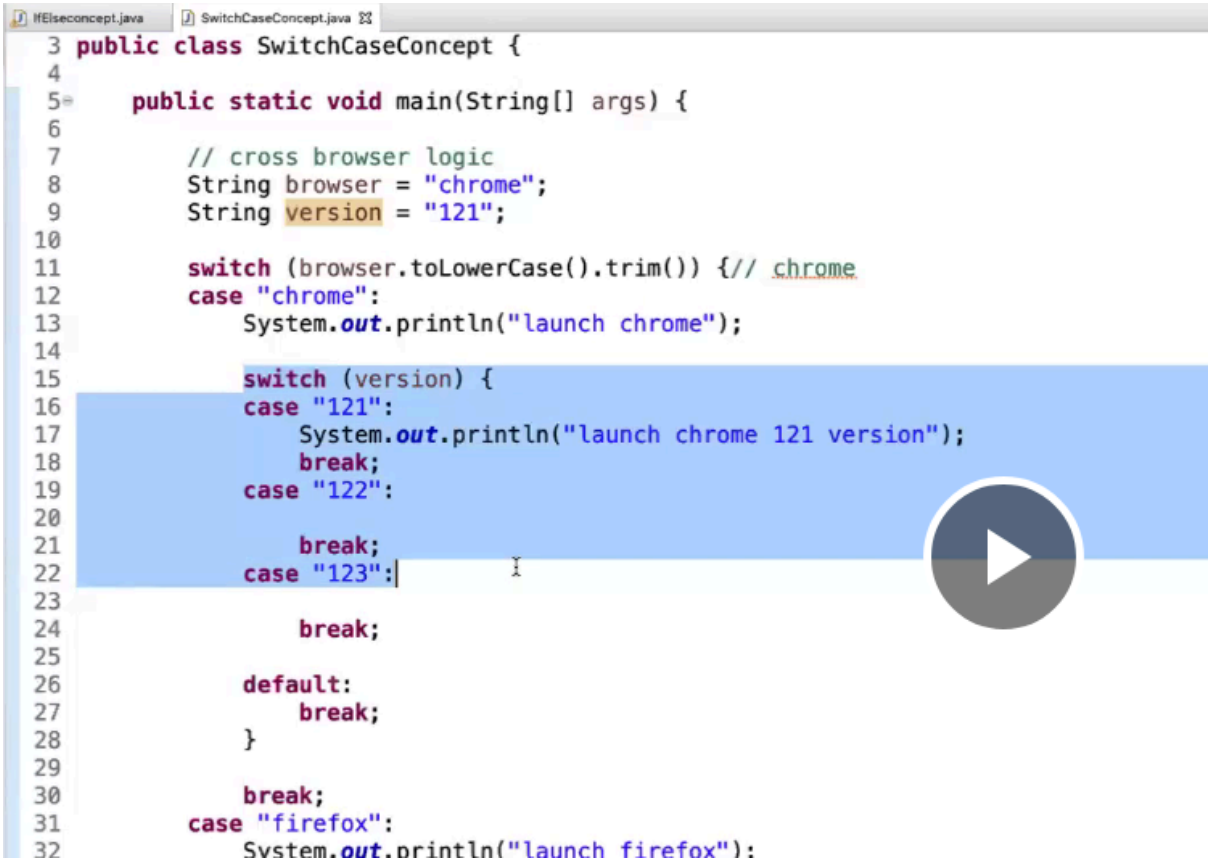
Space in middle, end and start-

middle space cannot be solved.

IfElseconcept.java SwitchCaseConcept.java

```java
package javasessions;

public class SwitchCaseConcept {

    public static void main(String[] args) {

        // cross browser logic
        String browser = "    Chr   ome    ";

        switch (browser.toLowerCase().trim()) {//chrome
        case "chrome":
            System.out.println("launch chrome");
            break;
        case "firefox":
            System.out.println("launch firefox");
            break;
        case "edge":
            System.out.println("launch edge");
            break;
        case "ie":
            System.out.println("launch ie");
            break;

        default:
            System.out.println("plz pass the right browser : " + browser);
            break;

        case "opera":
            System.out.println("launch opera");
            break;

        }

        // 1 to 100
```

Nested switch case allowed-

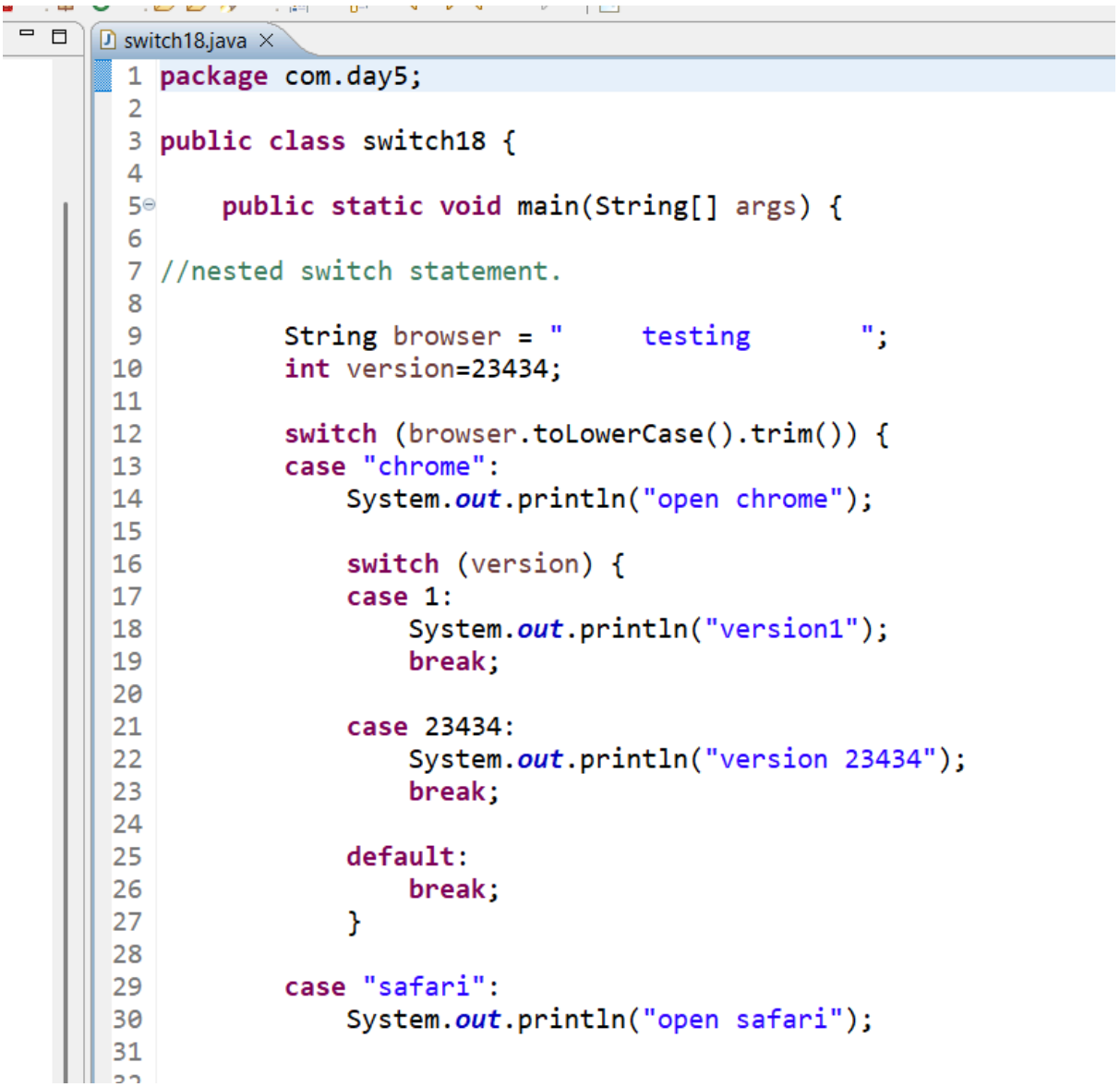


Output-

Launch chrome.

Launch chrome 121 version.

paste switch18–



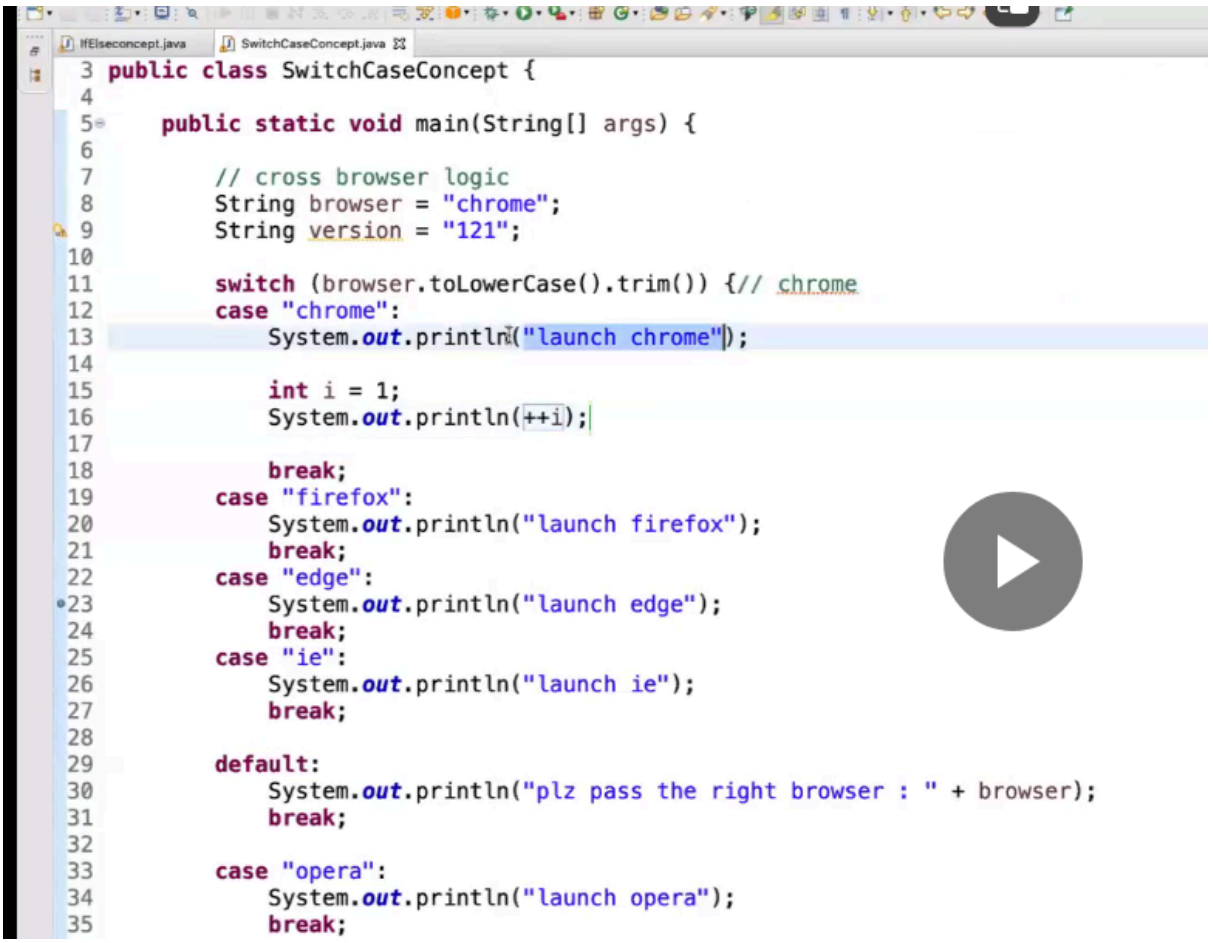
switch18.java

```java
package com.day5;

public class switch18 {

    public static void main(String[] args) {

//nested switch statement.

        String browser = "     testing       ";
        int version=23434;

        switch (browser.toLowerCase().trim()) {
        case "chrome":
            System.out.println("open chrome");

            switch (version) {
            case 1:
                System.out.println("version1");
                break;

            case 23434:
                System.out.println("version 23434");
                break;

            default:
                break;
            }

        case "safari":
            System.out.println("open safari");

```

```
30              System.out.println("open safari");
31
32
33
34          case "ff":
35              System.out.println("open ff");
36
37
38
39
40          default:
41              System.out.println("invalid case" + " " + browser);
42
43
44          case "ie":
45              System.out.println("open ie");
46              break;
47          }
48
49      }
50
51  }
52
53  //invalid case      testing
54  //open ie
55
```

Case cannot be nested, switch can. case is already in nested format one under other.

Any logic allowed inside switch case-



launch chrome

2

```
85          }
86
87
88          //use cases of switch case:
89          //1. cross browser logic
90          //2. cross OS logic
91          //3. month
92          //4. cross users/RBAC - user permissions
93          //5. run test cases in diff env: dev,qa,uat,stage,prod
94          //6. time zones
95          //7. Uber: cases: sedan, mini, suv, prime
96          //8. HR: user roles
97          //9. localization: En, Fr, Ar,
98          //10. category: Electronics, Fashion, MakeUp,
99
100
101
102     }
```