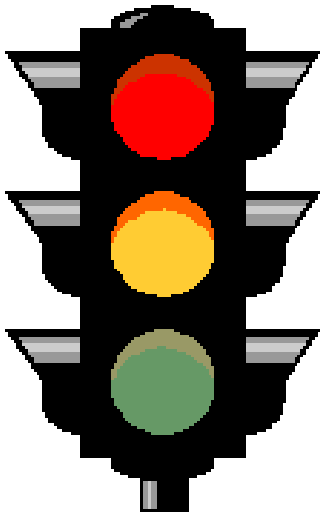
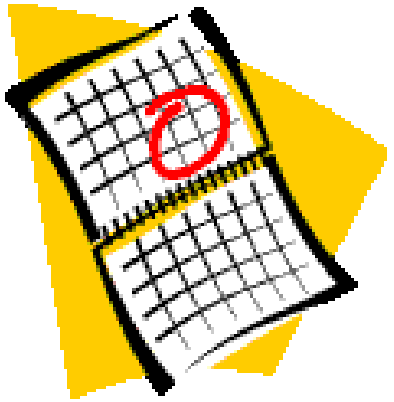
CN4001/ CD4001
Software Development
Topic 4: Making Choices
Part 4

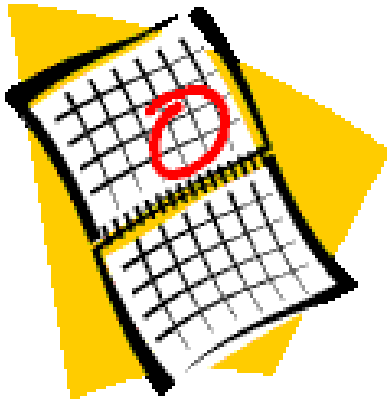
Making Multiple Choices



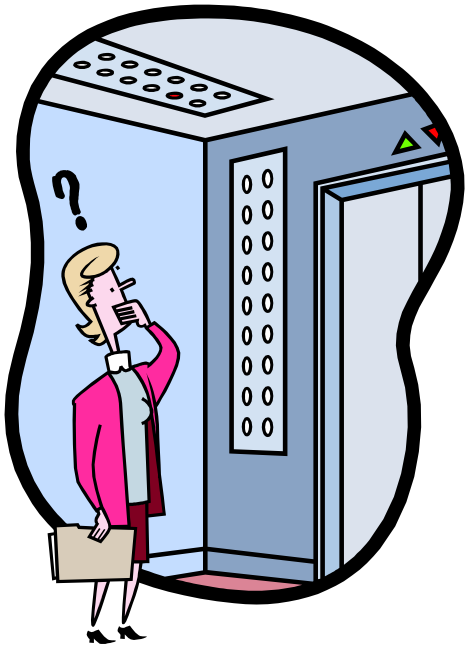
group	time
A	10.00 a.m.
B	1.00 p.m.
C	11.00 a.m



```
if (group == 'A')
{
        System.out.print("10.00 a.m");
}
else  if (group == 'B')
{
        System.out.print("1.00 p.m");
}
else  if (group == 'C')
{
        System.out.print("11.00 a.m");
}
else
{
        System.out.print("No such group");
}
```



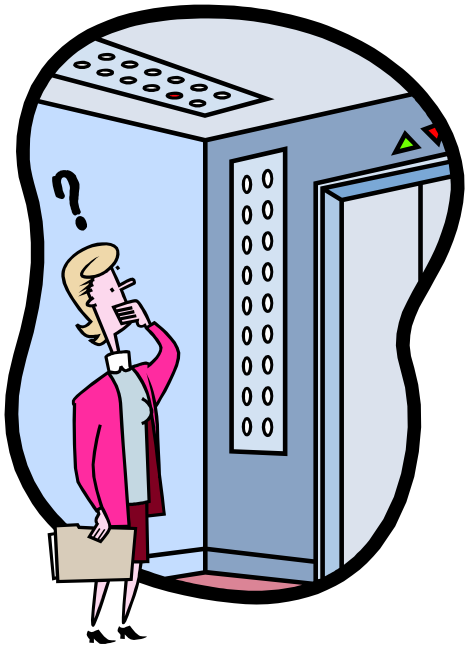
The 'switch' statement



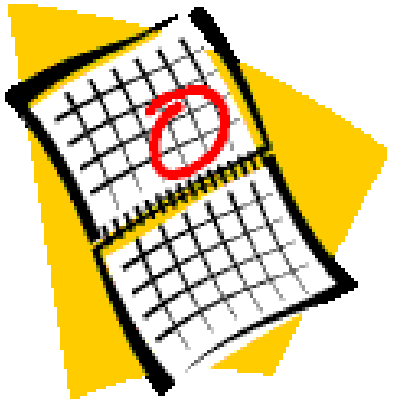
```
switch(someVariable )
{
      case value1: // instructions(s) to be executed
                        break;
      case value2: // instructions(s) to be executed
                        break;
      // more  values to be tested can be added
      default:          // instruction(s) for default case
}
```

The 'switch' statement:

An example….



group	time
A	10.00 a.m.
B	1.00 p.m.
C	11.00 a.m



```
switch(someVariable )
{
    case value1: // instructions(s) to be executed
                 break;
    case value1: // instructions(s) to be executed
                 break;
    // more  values to be tested can be added
    default:     // instruction(s) for default case
}
```

```
switch(      group      )
{
     case value1: // instructions(s) to be executed
                        break;
     case value1: // instructions(s) to be executed
                        break;
     // more  values to be tested can be added
     default:         // instruction(s) for default case
}
```

```
switch(      group      )
{
     case 'A':       // instructions(s) to be executed
                     break;
     case value1: // instructions(s) to be executed
                     break;
     // more  values to be tested can be added
     default:        // instruction(s) for default case
}
```

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case value1: // instructions(s) to be executed
                     break;
     // more  values to be tested can be added
     default:        // instruction(s) for default case
}
```

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       // instructions(s) to be executed
                     break;
     // more  values to be tested can be added
     default:        // instruction(s) for default case
}
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switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
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     default:        // instruction(s) for default case
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switch(      group      )
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                     break;
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     default:        // instruction(s) for default case
}
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switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
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     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

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switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
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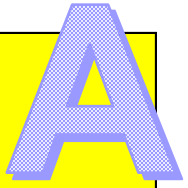
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
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     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
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switch(      group      )
{
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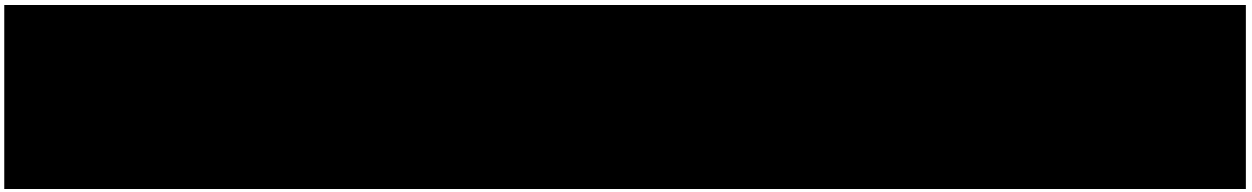
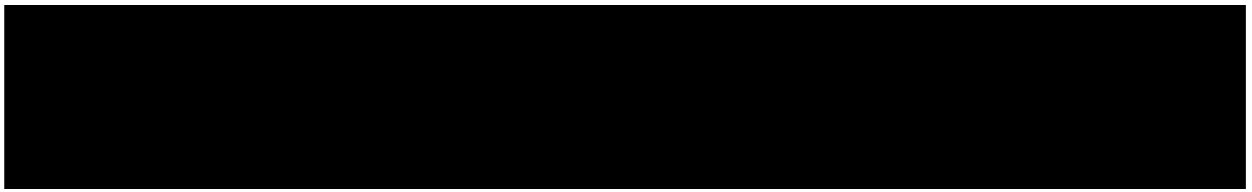
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



```
switch(      group      )
{
     case 'A':      System.out.print("10.00 a.m");
                    break;
     case 'B':      System.out.print("1.00 p.m");
                    break;
     case 'C':      System.out.print("11.00 a.m");   break;
     default:       System.out.print("No such group.");
}
```



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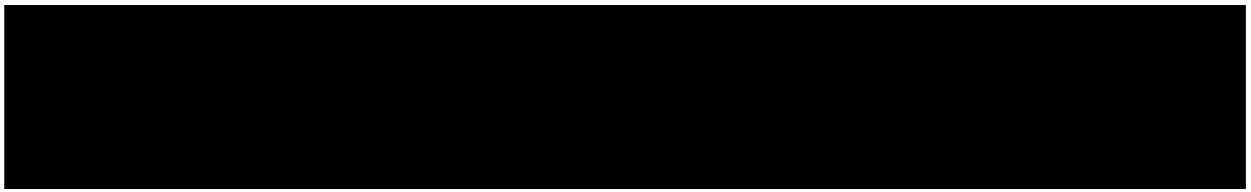
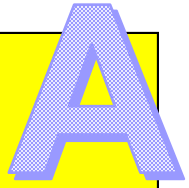
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```





```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
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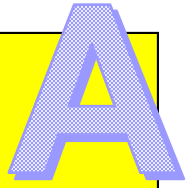
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

10.00 a.m



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

```
10.00 a.m
```

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

10.00 a.m

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

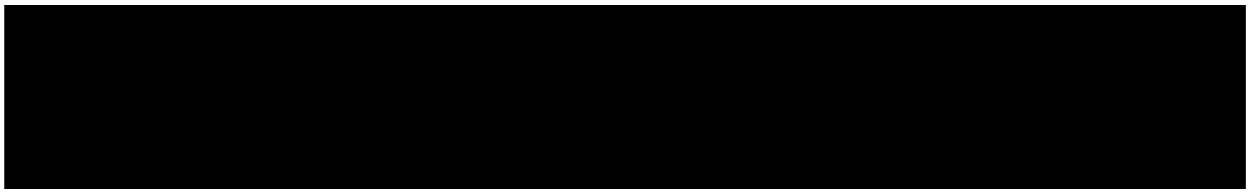
B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

B



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{
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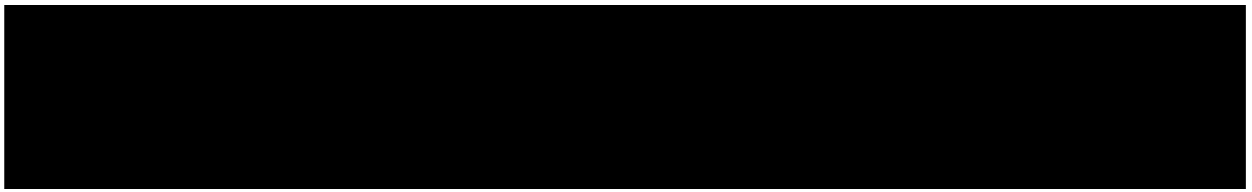

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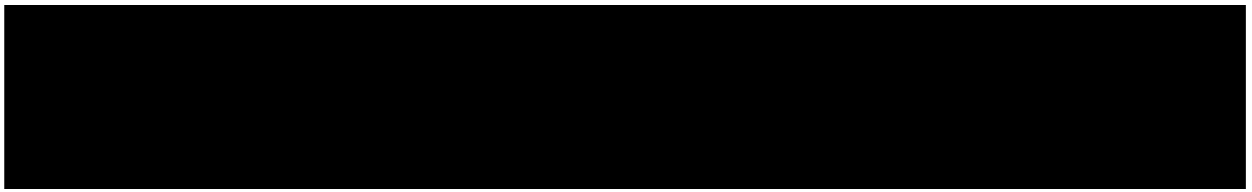
}
```

B



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}
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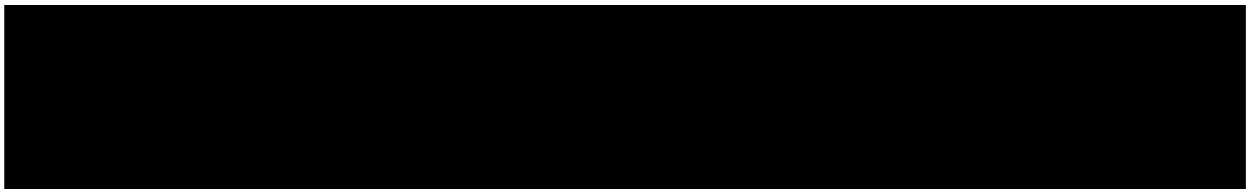
B



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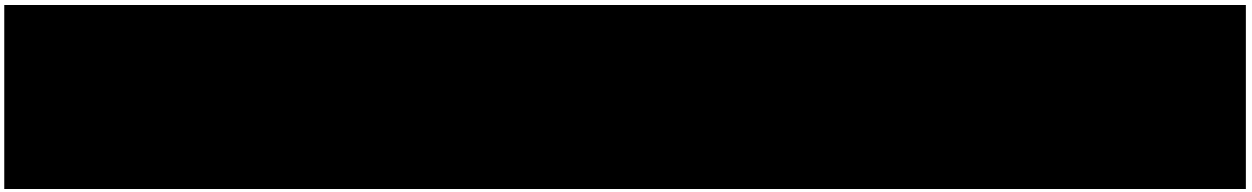
     default:        System.out.print(“No such group.");
}
```

B



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}
```

1.00 p.m

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
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     case ‘C’:       System.out.print("11.00 a.m");   break;
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switch(      group      )
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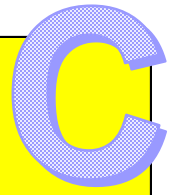
1.00 p.m



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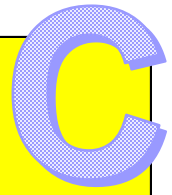

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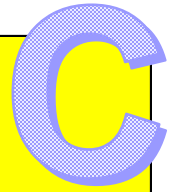

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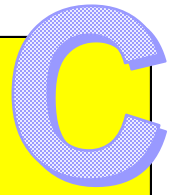

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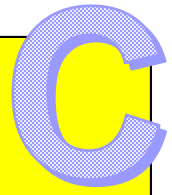


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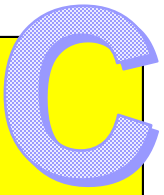

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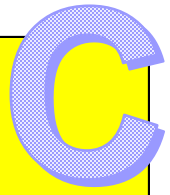

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{
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                     break;
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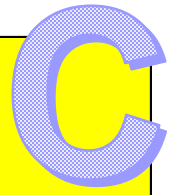
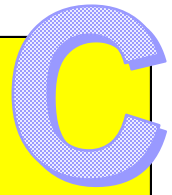
                     break;
     case ‘C’:       System.out.print("11.00 a.m");  break;
     default:        System.out.print(“No such group.");
}
```

11.00 a.m



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");  break;
     default:        System.out.print(“No such group.");
}
```

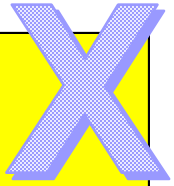
11.00 a.m



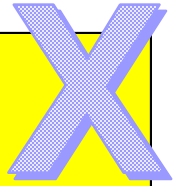
```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

11.00 a.m

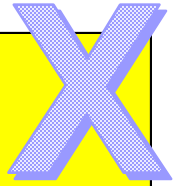
```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

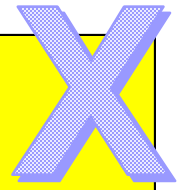


```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



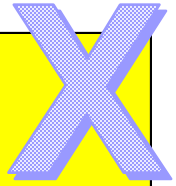
```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

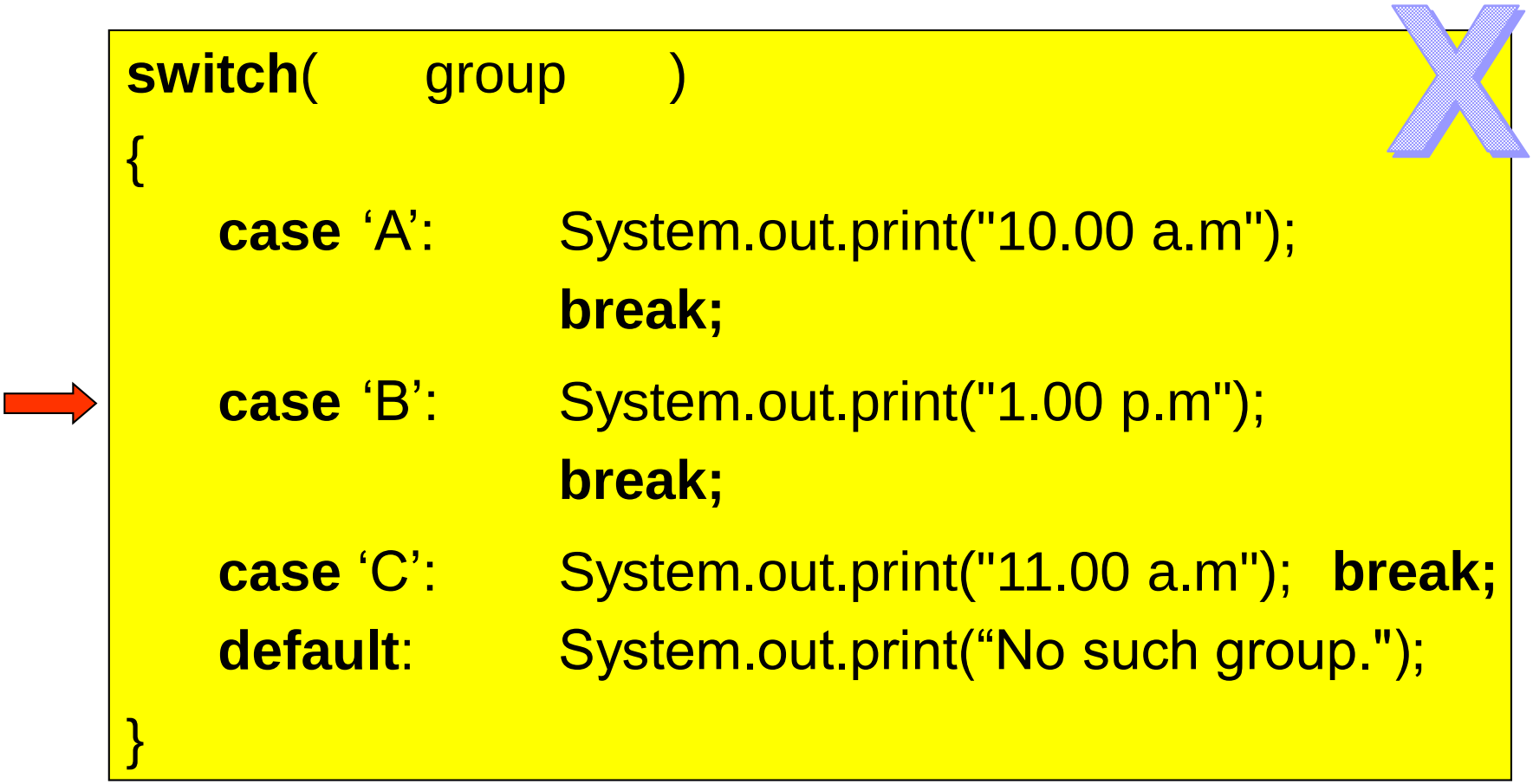


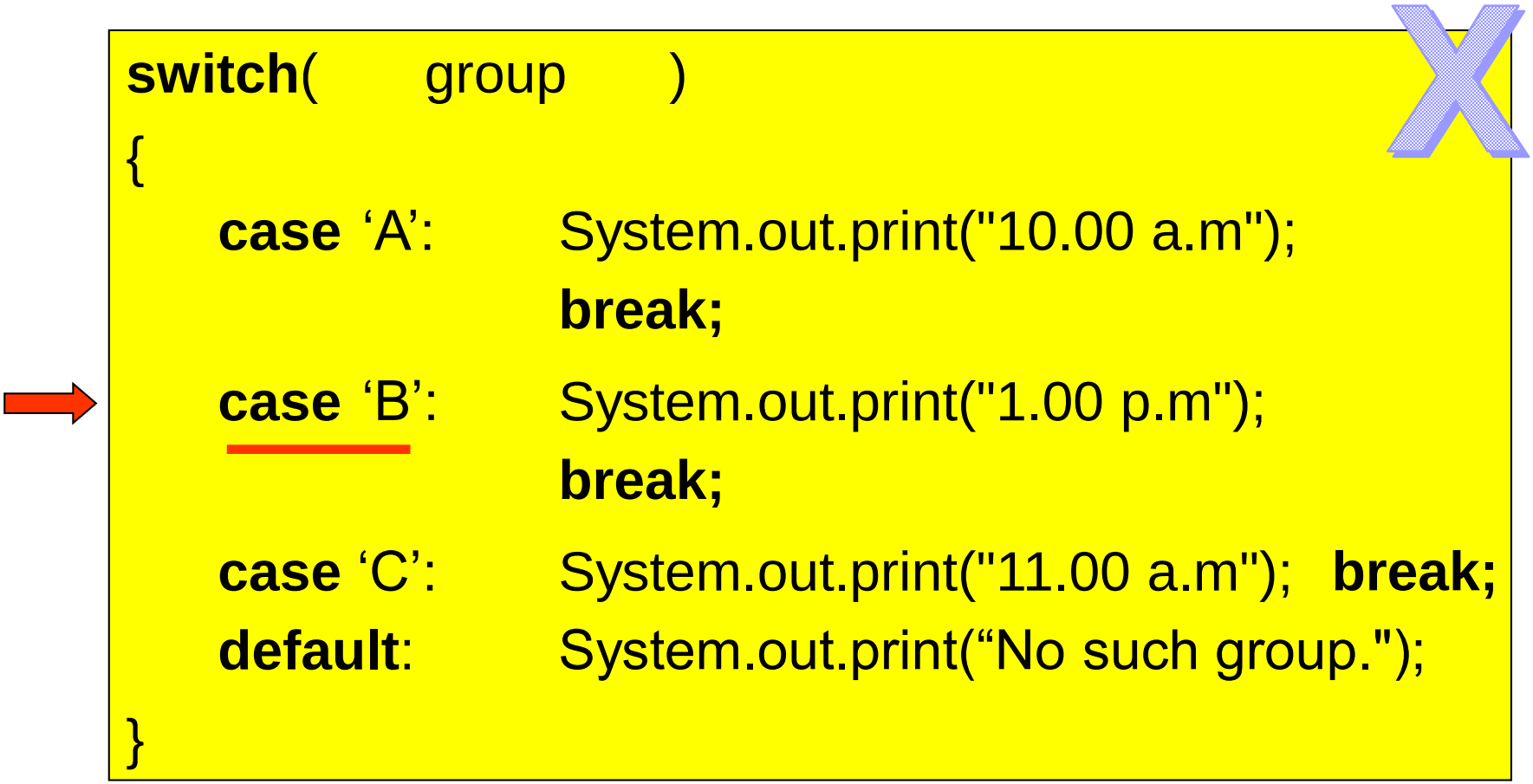


```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

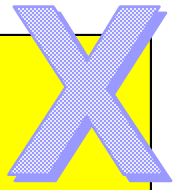



switch(group)
{
case 'A': System.out.print("10.00 a.m");
break;
case 'B': System.out.print("1.00 p.m");
break;
case 'C': System.out.print("11.00 a.m"); break;
default: System.out.print("No such group.");
}

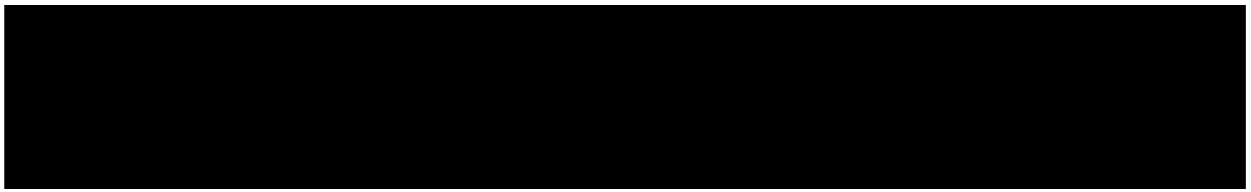

switch(group)
{
case 'A': System.out.print("10.00 a.m");
break;
case 'B': System.out.print("1.00 p.m");
break;
case 'C': System.out.print("11.00 a.m"); break;
default: System.out.print("No such group.");
}

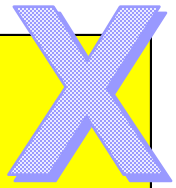
```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

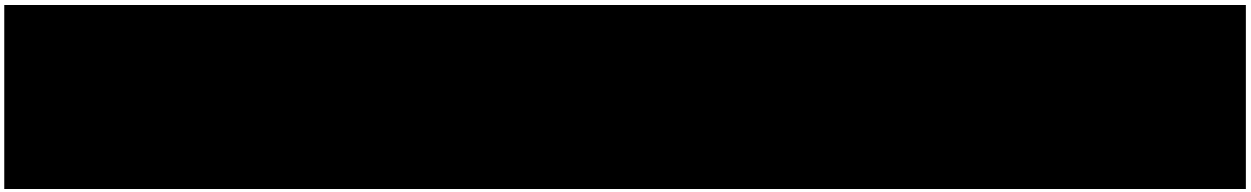


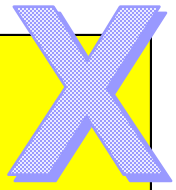
```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



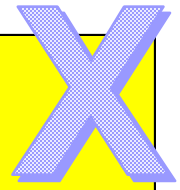


```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



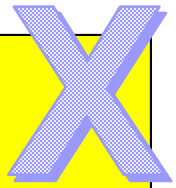


```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

No such group



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");
                     break;
     case ‘B’:       System.out.print("1.00 p.m");
                     break;
     case ‘C’:       System.out.print("11.00 a.m");   break;
     default:        System.out.print(“No such group.");
}
```

No such group

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

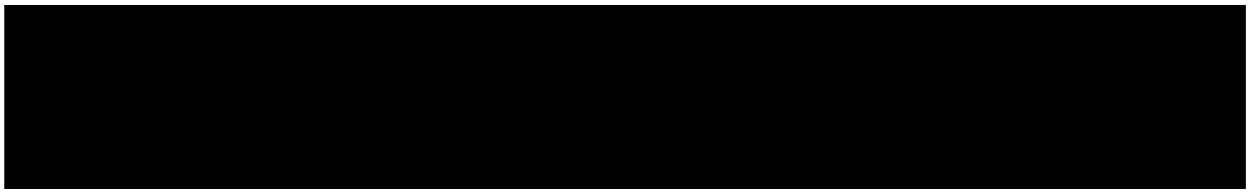
B

```
switch(      group      )
{
    case ‘A’:       System.out.print("10.00 a.m");

    case ‘B’:       System.out.print("1.00 p.m");

    case ‘C’:       System.out.print("11.00 a.m");
    default:        System.out.print(“No such group.");
}
```

[redacted]



```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

1.00 p.m

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

1.00 p.m 11.00 a.m

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

B

1.00 p.m 11.00 a.m

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

1.00 p.m 11.00 a.m No such group

```
switch(      group      )
{
     case ‘A’:       System.out.print("10.00 a.m");

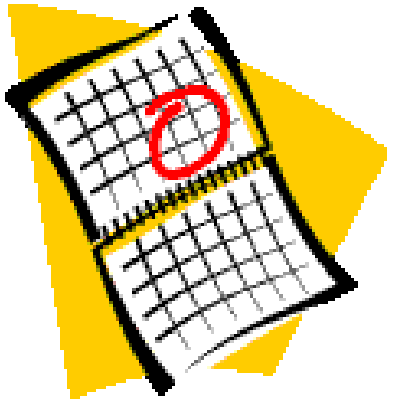
     case ‘B’:       System.out.print("1.00 p.m");

     case ‘C’:       System.out.print("11.00 a.m");
     default:        System.out.print(“No such group.");
}
```

1.00 p.m 11.00 a.m No such group

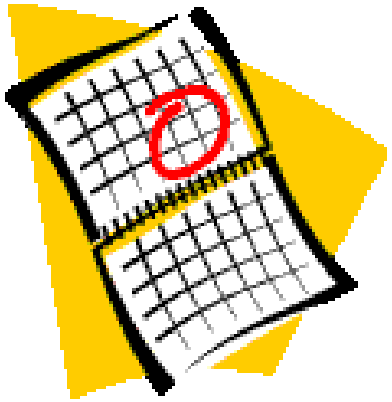
Combining options

group	time
A	10.00 a.m.
B	1.00 p.m.
C	11.00 a.m



Combining options

group	time
A	10.00 a.m.
B	1.00 p.m.
C	10.00 a.m



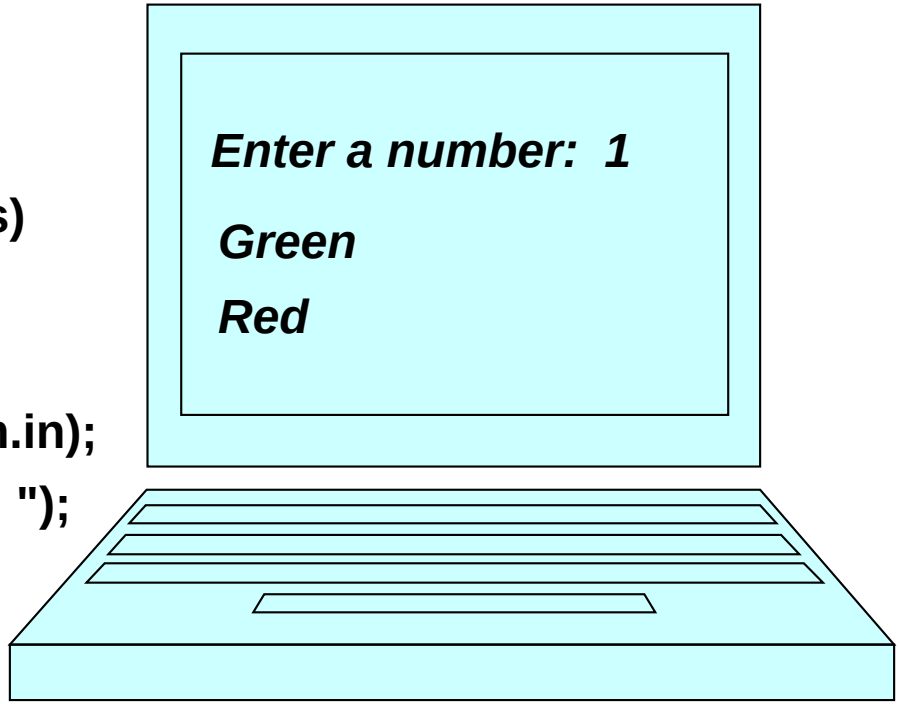
```
switch(group)
{
        case 'A':  System.out.print("10.00 a.m ");
                   break;
        case 'B': System.out.print("1.00 p.m ");
                   break;
        case ‘C’: System.out.print("10.00 a.m ");
                   break;
        default:  System.out.print("No such group");
}
```

```
switch(group)
{
        case 'A': case ‘C’: System.out.print("10.00 a.m ");
                  break;
        case 'B': System.out.print("1.00 p.m ");
                   break;
        default:  System.out.print("No such group");
}
```

Activity

"What would be the output of the following program if the user enters 1 when prompted?"

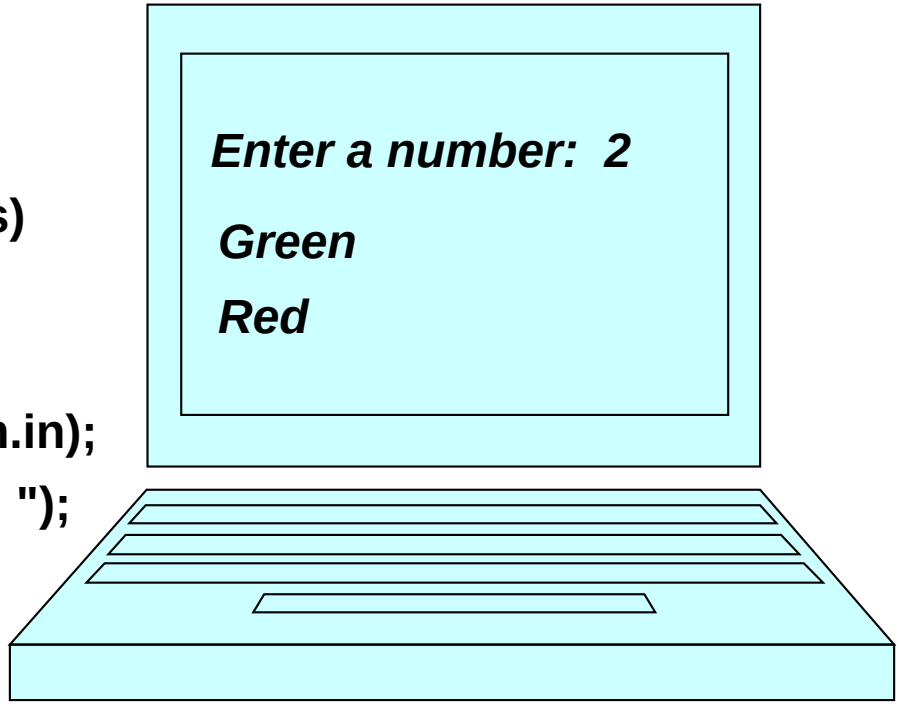
```
import java.util.*;
public class Selection
{
    public static void main (String[ ] args)
    {
        int x;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        x = sc.nextInt();
        switch (x)
        {
            case 1: case 2: System.out.println("Green"); break;
            case 3: case 4: case 5: System.out.println("Blue"); break;
            default: System.out.println("numbers 1-5 only");
        }
        System.out.println(“Red");
    }
}
```



Activity

"What would be the output of the following program if the user enters 2 when prompted?"

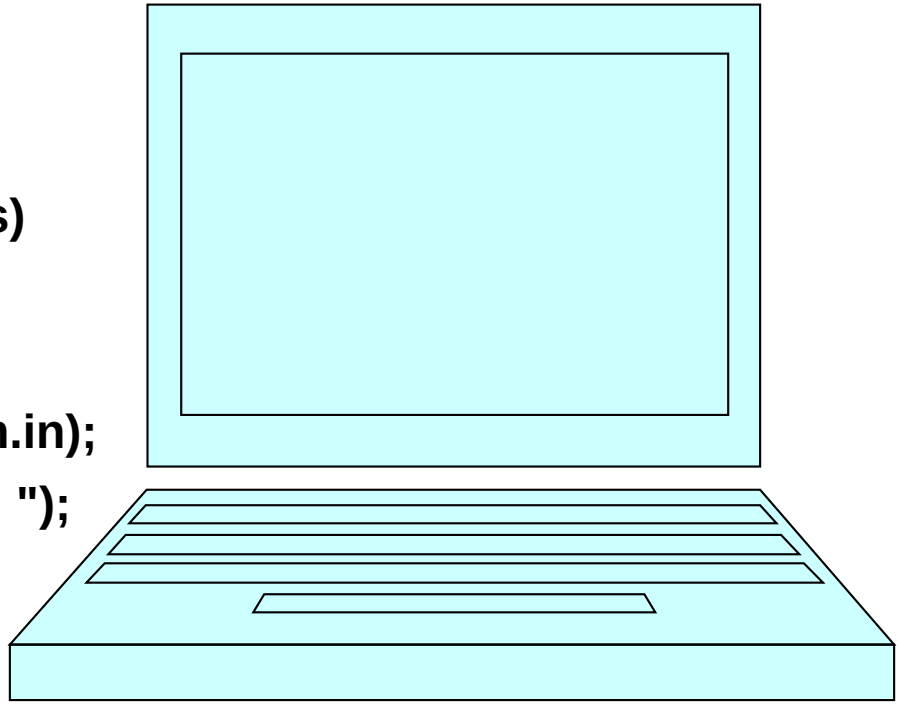
```
import java.util.*;
public class Selection
{
    public static void main (String[ ] args)
    {
        int x;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        x = sc.nextInt();
        switch (x)
        {
            case 1: case 2: System.out.println("Green"); break;
            case 3: case 4: case 5: System.out.println("Blue"); break;
            default: System.out.println("numbers 1-5 only");
        }
        System.out.println("Red");
    }
}
```



Activity

"What would be the output of the following program if the user enters 3 when prompted?"

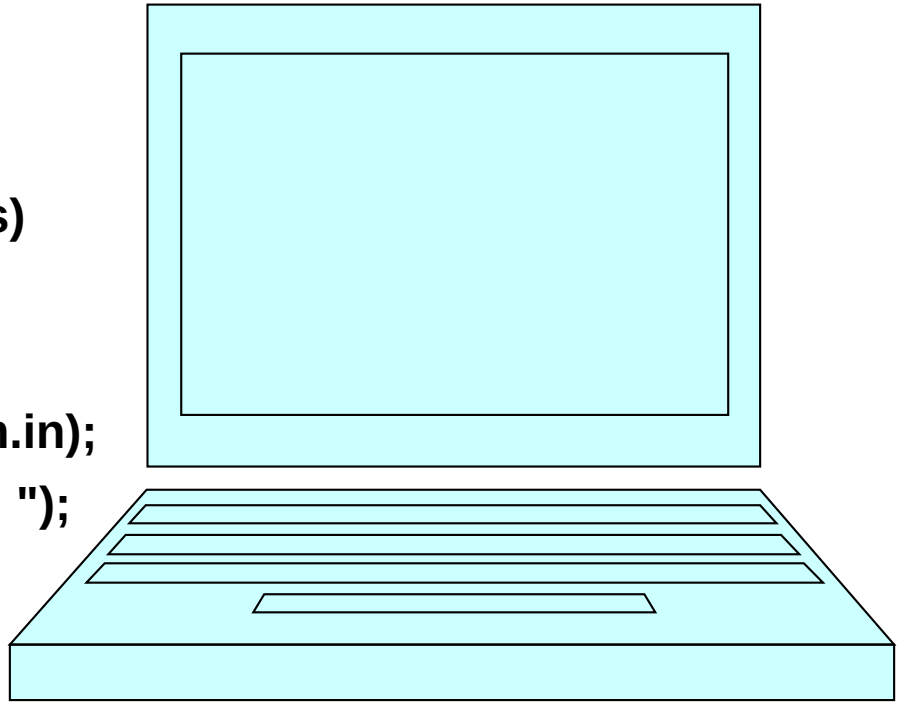
```
import java.util.*;
public class Selection
{
    public static void main (String[ ] args)
    {
        int x;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        x = sc.nextInt();
        switch (x)
        {
            case 1: case 2: System.out.println("Green"); break;
            case 3: case 4: case 5: System.out.println("Blue"); break;
            default: System.out.println("numbers 1-5 only");
        }
       System.out.println(“Red");
    }
}
```



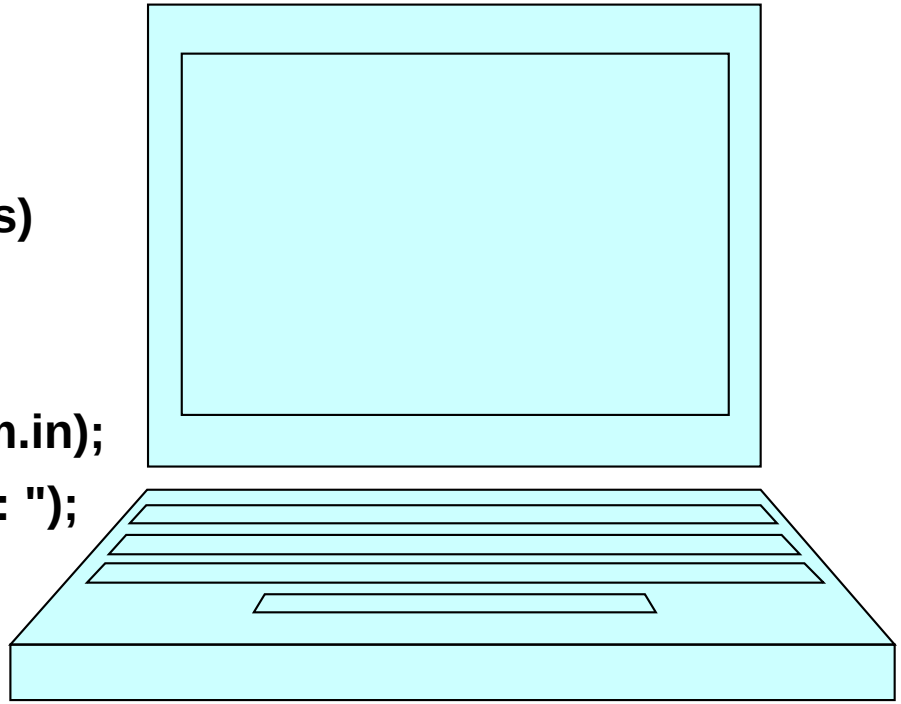
Activity

"What would be the output of the following program if the user enters 10 when prompted?"

```
import java.util.*;
public class Selection
{
    public static void main (String[ ] args)
    {
        int x;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        x = sc.nextInt();
        switch (x)
        {
            case 1: case 2: System.out.println("Green"); break;
            case 3: case 4: case 5: System.out.println("Blue"); break;
            default: System.out.println("numbers 1-5 only");
        }
       System.out.println(“Red");
    }
}
```



Activity

"What would be the output of the following program if the user enters 10 when prompted?"

```
import java.util.*;
public class Selection
{
    public static void main (String[ ] args)
    {
        int x;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        x = sc.nextInt();
        switch (x)
        {
            case 1: case 2: System.out.println("Green"); break;
            case 3: case 4: case 5: System.out.println("Blue"); break;

        }
       System.out.println(“Red");
    }
}
```