

Chapter 5 practice questions:

Solutions:

1) Program:

```
2) package trafiicpac;
3) import java.util.Scanner;
4) public class trafficcla {
5)
6)     public static void main(String[] args) {
7)         Scanner scanner=new Scanner(System.in);
8)         System.out.print("Enter the current traffic light color
9) (red,yellow,green):");
10)         String currentcolor = scanner.nextLine().trim().toLowerCase();
11)         String nextColor;
12)         switch (currentcolor) {
13)             case "red":
14)                 nextColor = "green";
15)                 break;
16)             case "green":
17)                 nextColor = "yellow";
18)                 break;
19)             case "yellow":
20)                 nextColor = "red";
21)                 break;
22)             default:
23)                 System.out.println("Invalid input. Please enter one of
24) the following colors: red, yellow, green.");
25)                 scanner.close();
26)                 return;
27)         }
28)         System.out.println("The next color will be: "+nextColor);
29)         scanner.close();
30)     }
31}
```

Output:

```
Enter the current traffic light color (red,yellow,green):red
The next color will be: green
```

2) program:

```
package trafficsignalpack;
import java.util.Scanner;

public class trafficsignalcla {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter a color code:");
        int currentColor = scanner.nextInt();

        if (currentColor == 1) {
            System.out.println("Next Traffic Light is Green");
        } else if (currentColor == 2) {
            System.out.println("Next Traffic Light is Yellow");
        } else if (currentColor == 3) {
            System.out.println("Next Traffic Light is Red");
        } else {
            System.out.println("Invalid color");
        }
    }
}
```

Output:

```
Enter a color code:
2
Next Traffic Light is Yellow
```

3) program:

```
package trafficsignalpack;
import java.util.Scanner;
public class trafficsignalcla {
    public static void main(String[] args) {
        Scanner in = new Scanner (System.in);
        double col = in.nextDouble();
        if(col >=380 && col < 450 ) {
            System.out.println("the colour is red");
        }
        else if (col >= 450 && col <495) {
            System.out.println("the colour is blue");
        }
        else if (col >=495 && col <570) {
            System.out.println("the colour is green");
        }
        else if (col >=570 && col <590 ) {
            System.out.println(" the colour is yellow");
        }
        else if (col >=590 && col < 620) {
            System.out.println("the colour is orange ");
        }
        else if (col >=620 && col <750) {
            System.out.println("the colour is red ");
        }
        else {
            System.out.println("enter the valid colour");
        }
    }
}
```

Output:

```
550
the colour is green
```