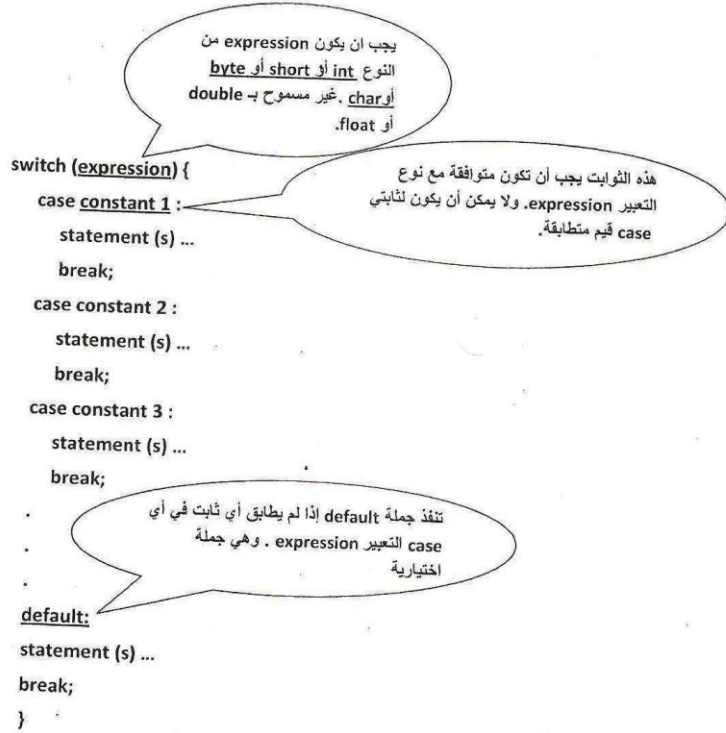- تمكن البرنامج من الانتقاء من بين عدة بدائل (خيارات).
- يمكن لجمل if المتداخلة القيام بنفس المهمة لكن تعتبر جملة switch الأكثر فاعلية.

الشكل العام لجملة switch :

يجب ان يكون expression من النوع int أو short أو byte أوchar. غير مسموح بـ double أو float.

```
switch (expression) {
    case constant 1 :
        statement (s) ...
        break;
    case constant 2 :
        statement (s) ...
        break;
    case constant 3 :
        statement (s) ...
        break;
```

هذه الثوابت يجب أن تكون متوافقة مع نوع التعبير expression. ولا يمكن أن يكون لثابتي case قيم متطابقة.

تنفذ جملة default إذا لم يطابق أي ثابت في أي case التعبير expression . وهي جملة اختيارية

```
default:
statement (s) ...
break;
}
```

أمثلة:

```java
public class progswitch1{
    public static void main ( String[ ] args){
        int i;
        for(i=0;i<10;i++)
        switch(i){
            case 0:
                    System.out.println("i is zero");
                    break;
            case 1:
                    System.out.println("i is one");        break;
            case 2:
                    System.out.println("i is two");        break;
            case 3:  System.out.println("i is three") ;    break;
            case 4:  System.out.println("i is four");      break;
            default: System.out.println("i is five or more");
        }
} }
```

i is zero
i is one
i is two
i is three
i is four
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more

```java
public class progswitch2{
    public static void main ( String[ ] args){
        int i;
        for(i=0;i<10;i++)
        switch(i){
            case 0:  System.out.println("i is zero");
            case 1:  System.out.println("i is one");
            case 2:  System.out.println("i is two");
            case 3:  System.out.println("i is three");
            case 4:  System.out.println("i is four");
            default:
                    System.out.println("i is five or more");

    }
} }
```

i is zero
i is one
i is two
i is three
i is four
i is five or more
i is one
i is two
i is three
i is four
i is five or more
i is two
i is three
i is four
i is five or more
i is three
i is four
i is five or more
i is four
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more

```java
public class  progswitch3{
    public static void main ( String[ ] args){
        int i;
        for(i=0;i<10;i++)
        switch(i){
            case 0:
            case 1:
            case 2:
            case 3:   System.out.println("i is three");
            case 4:   System.out.println("i is four");
            default:

                    System.out.println("i is five or more");

        }
} }
```

i is three
i is four
i is five or more
i is three
i is four
i is five or more
i is three
i is four
i is five or more
i is three
i is four
i is five or more
i is four
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more

progswitch3 ناتج تنفيذ

```java
public class  progswitch4{
    public static void main ( String[ ] args){
        int i;
        for(i=0;i<10;i++)
        switch(i){
            case 0:
            case 1:
            case 2:
            case 3:   System.out.println("i is <= 3");  break;
            case 4:   System.out.println("i is four");  break;
            default:

                    System.out.println("i is five or more");
                    Break;
} } }
```

i is <= 3
i is <= 3
i is <= 3
i is <= 3
i is four
i is five or more
i is five or more
i is five or more
i is five or more
i is five or more

progswitch4 ناتج تنفيذ

• بالمعمل طبقى البرامج السابقة   +   من prog40 الى prog48