



EECS1022
MOBILE COMPUTING



CONTROL STRUCTURES
WHILE, SWITCH, ETC.
(SLIDES ADAPTED FROM PROF.H. ROUMANI)

PROF. Y. LESPÉRANCE
Dept. of Electrical Engineering & Computer Science

1

WHILE

```
while (condition){  
    statements  
}
```

is equivalent to

```
for (; condition;){  
    statements  
}
```

2

EXAMPLE

Print the first power of 2 greater than 10000

```
int p = 2;  
while (p <= 10000){  
    p = p * 2;  
}  
System.out.println(p);
```

3

DO WHILE

```
do {  
    statements  
} while (condition)
```

is similar to **while** but the condition for continuing to iterate is only tested at the end of the loop

The **statements** in the body will be executed at least once

4

SWITCH – ANOTHER SELECTION STRUCTURE

```
switch (expression)
{
    case value1 :
        statements
        break;
    ...
    case valueN :
        statements
        break;
}
```

Selects a case based on the value of **expression**

expression must be of type int, char, etc.

valueI must be constant or literal

break skips to the end of the block

5

EXAMPLE – COUNT BY GENDER

```
switch (gender) {
    case 'M' :
        male++;
        break;
    case 'F' :
        female++;
        break;
    default:
        other++;
}
```

default: handles all other cases/ values of the **expression**

6

EXAMPLE – SET RESULT TO DAYS OF MONTH

```
switch (month) {
    case 1: case 3: case 5; ... case 12:
        result = 31;
        break;
    case 4: case 6: case 9: case 11:
        result = 30;
        break;
    case 2:
        result = 28;
        break;
    default:
        result = -1;
}
```

7