

Control Flow 2

J6

Control flow
while & do-while
for
break, continue, return

Recall: Imperative Programming

Sequence

Selection

Iteration

The `while` & `do-while` Statements

```
while ( [expr] ) {  
    [0 or more statements]  
}
```

Executes block 0 or more times.

```
do {  
    [0 or more statements]  
} while ( [expr] );
```

Executes block 1 or more times.

Loop ends once `[expr]` evaluates to **false**.

The `for` Statements

```
    int i = 0           i < 5           i++  
for ( [initialization]; [termination]; [increment] ) {  
    [0 or more statements]  
}
```



```
    String s           myStringArr  
for ( [variable decl] : [array/collection] ) {  
    [0 or more statements]    “Enhanced” for statement  
}
```

Branching Statements

while/do/for ... {

...

continue ;

skips the current iteration of current loop

...

break ;

terminates current loop

...

}

return

exits the current method (from anywhere)

Branching Statements with Labels

```
[label]: while/do/for ... {  
  while/do/for ... {
```

```
  ...
```

```
  continue [label];
```

```
  ...
```

```
  break [label];
```

```
  ...
```

```
  } ...
```

```
} ...
```

skips the current iteration of the loop with the given label

terminates the loop with the given label