

# Lesson 7 - Pseudocode

## Logical Computational Thinking

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# Basics

## Instructions

An **instruction** is a line that ends with a **semicolon**. Some instructions can open a **block of code**.

```
1  . . . ;
```

## Code blocks

A **block of code** is a series of **instructions** inside a couple of curly brackets.

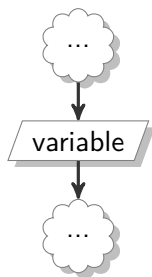
```
1  {  
2      . . . ;  
3      . . . ;  
4      . . . ;  
5  }
```

# Program start/end



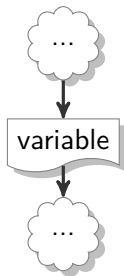
```
1 {  
2   variables declarations;  
3   ...  
4 }
```

# Input



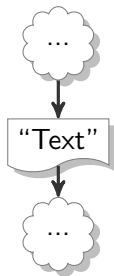
```
1  ...  
2  input  variable;  
3  ...
```

# Output 1



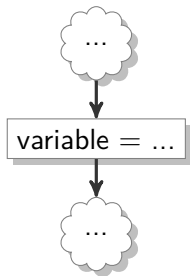
```
1  ...  
2  output variable;  
3  ...
```

## Output 2



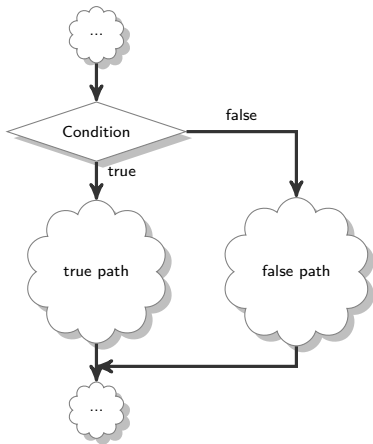
```
1  ...  
2  output  "Text";  
3  ...
```

# Assignment



```
1  ...  
2  variable = ...;  
3  ...
```

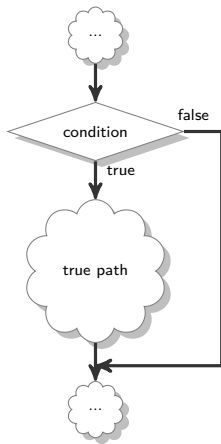
# Selection 1



```
1  ...  
2  if(condition){  
3      true path  
4  } else {  
5      false path  
6  }  
7  ...
```

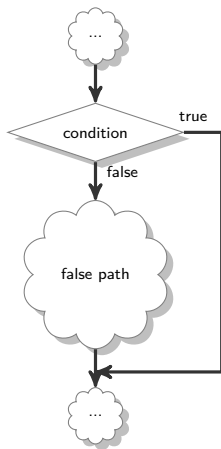


## Selection 2



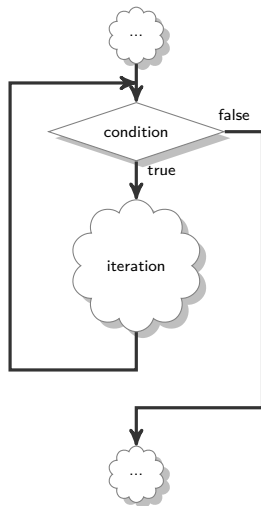
```
1  ...
2  if(condition){
3      true path
4  }
5  ...
```

## Selection 3



```
1  ...  
2  if(! condition){  
3      false path  
4  }  
5  ...
```

# Iteration 1

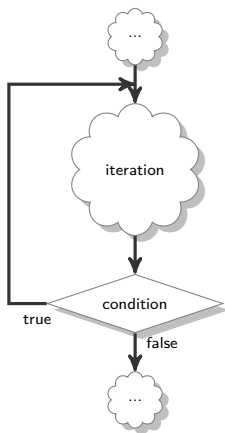


```
1  ...  
2  while(condition){  
3      iteration  
4  }  
5  ...
```

## Alert

If the true and false in the selection are inverted, you need to negate the condition like for the `if` .

## Iteration 2



```
1  ...  
2  do {  
3      iteration  
4  } while(condition);  
5  ...
```

### Alert

If the true and false in the selection are inverted, you need to negate the condition like for the `if` .