

ICT-Start – Session 01

Module 3: Client-Side Scripting I Creating dynamic web pages

C) Conditionals

December 2022

Last session: In- and Outputs

- Using document.getElementById()

```
function payClicked(){  
  var name = document.getElementById("inName").value;  
  var price = document.getElementById("inPrice").value;  
  var email = document.getElementById("inEmail").value;  
  
  document.getElementById("divOutput").innerHTML = "Hi "+name + ", an invoice of  
  "+price+"€ will be send to "+email+". Thanks for the order!";  
  document.getElementById("divOutput").style.color = "green";  
}
```

Today's session: Conditionals

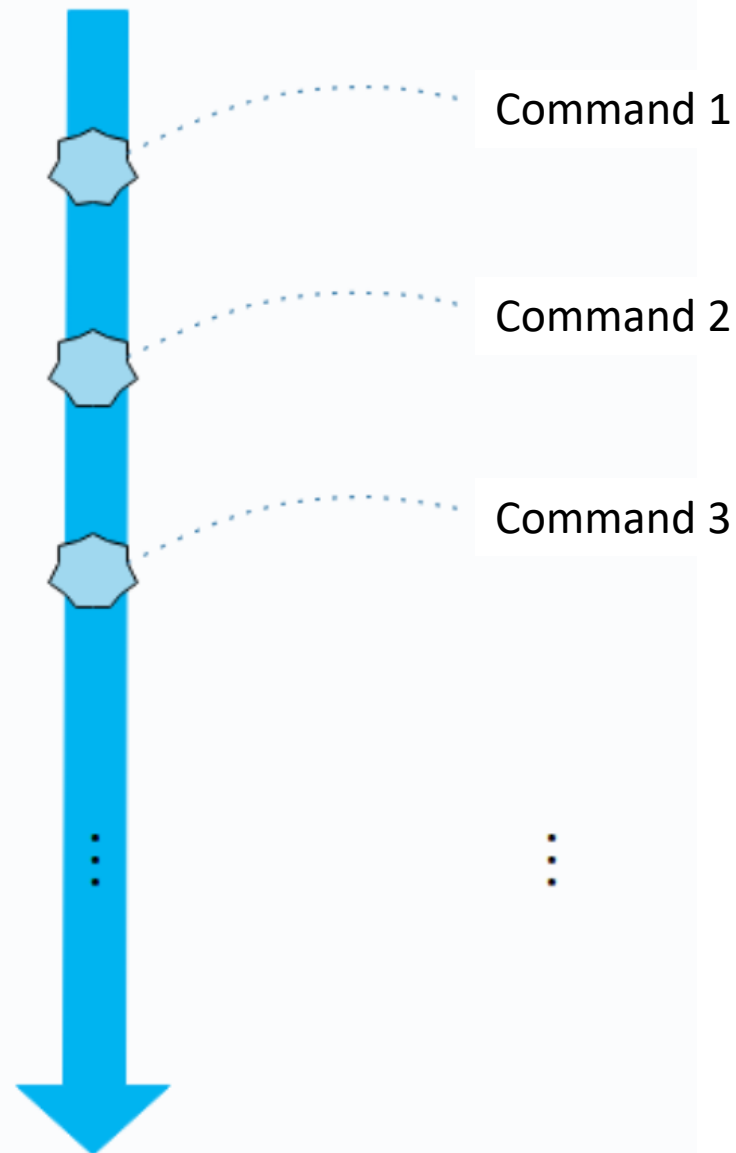
- We cannot always rely on the user's in- and output
- Examples:
 - Sometimes we expect a number to perform some calculations. The user still can type a text (String) and make our program not work.
- Or, sometimes the input must be checked for criterions
- Examples:
 - A Feedback on an average grade ("Very good" or "Excellent" etc.)

Current coding style

- Sequential execution

Beginning: code loaded

le IT real

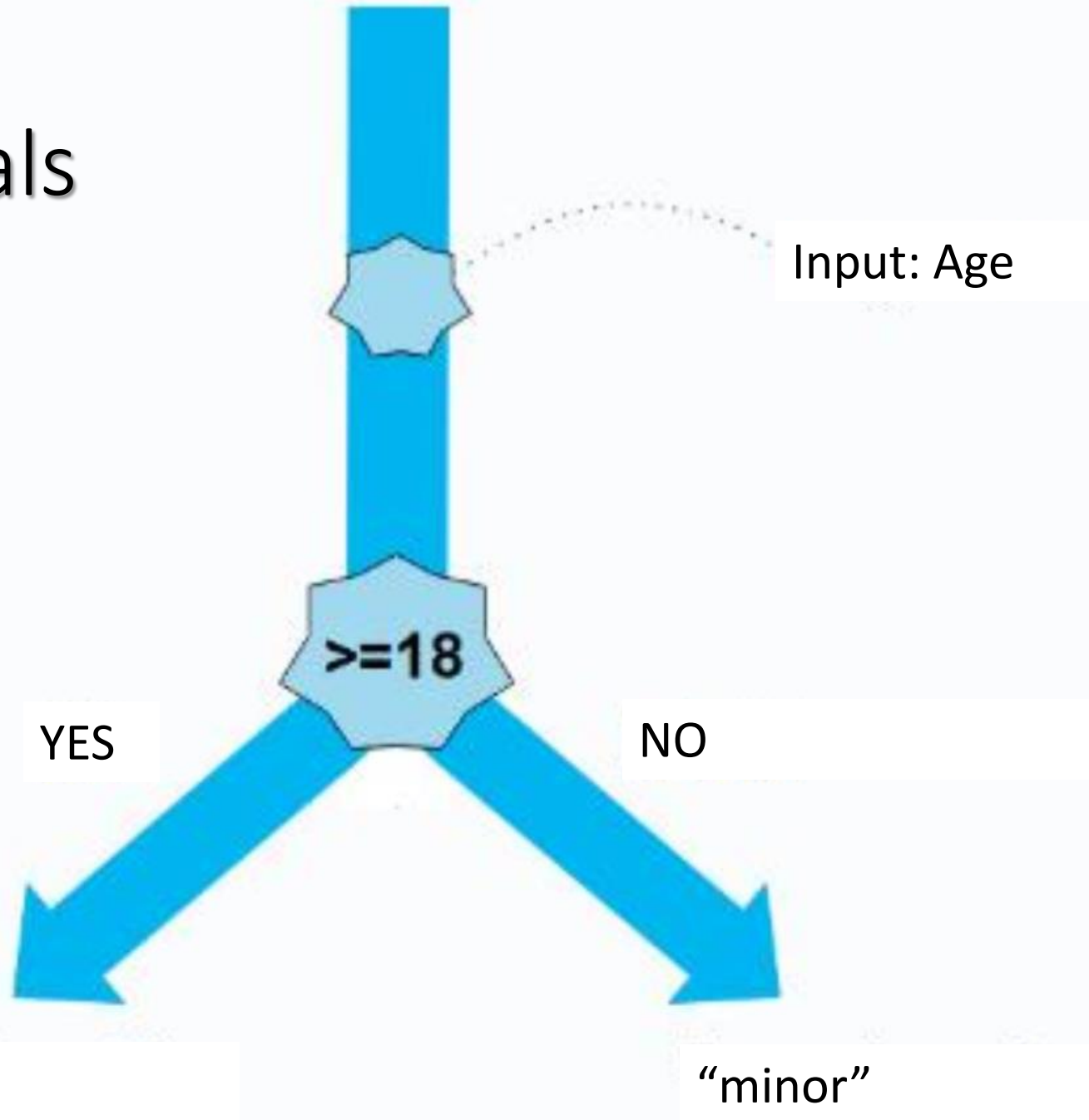


End: Code finished executing

Conditionals

- Code can follow different “branches” of execution

Conditionals



English formulation VS JavaScript

If the age is greater or equal 18
then

"adult"

Else

"minor"

```
var age = parseInt(prompt("Age:"))  
if(age >= 18){  
    alert("adult")  
}  
else{  
    alert("minor")  
}
```



Try it!

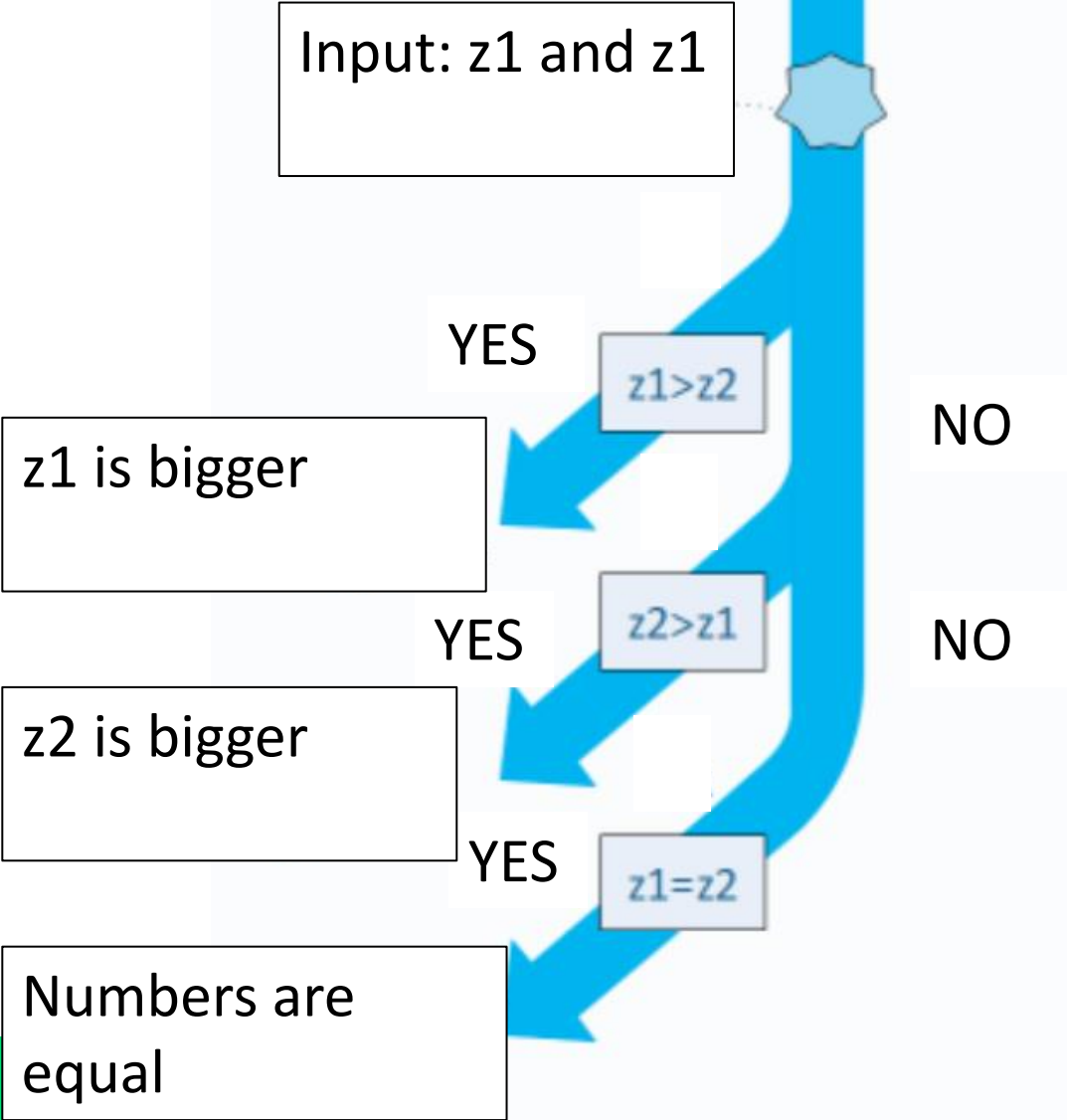
Exercices

- Solve the exercises (1 and 2) from the Worksheet 3.

Handling more conditions

- Example: finding the biggest of two numbers

Handling mc



JavaScript

```
if(z1>z2){  
    alert("z1 is bigger")  
}  
else if(z1<z2){  
    alert("z2 is bigger")  
}  
else{  
    alert("numbers are equal")  
}
```



Exercices

- Solve the exercises 3 and 4 from the Worksheet 3.

Logical operators

- Sometimes it makes sense to combine conditions, i.e. verifying at once
- Example: Grade evaluation
 - To get a “Very Good” rating in the Luxembourgish system, the grade must be in the interval [48;52]
 - Hence, bigger or equal than 48 **and** at the same time smaller or equal than 52
- Another example:
 - Valid grades must be in the interval [01;60]
 - Hence, anything smaller than 1 **or** bigger than 60 is invalid.

Logical operator **&&** (AND)

- The AND operator combines two or more conditions and evaluates to true if all conditions evaluate to true
- `condition1 && condition2`



```
...  
if(grade>=48 && grade<=52){  
    alert("very good")  
}...
```



```
...  
if(grade>=48 && <=52){  
    alert("very good")  
}...
```

Logical operator `||` (OR)

- The OR operator combines two or more conditions and evaluates to true if at least one conditions evaluate to true
- `condition1 && condition2`



```
...  
if(grade<1 || grade>60){  
    alert("Invalid grade")  
}...
```



```
...  
if(grade<1 || >60){  
    alert("Invalid grade")  
}...
```

Logical operator ! (NOT)

- The NOT operator negates a condition. True becomes false and vice versa
- **!**condition

```
...  
if(! (age>=18)){  
    alert("minor")  
}  
...
```


Exercices

- Solve the rest of the exercises (5-8) from the Worksheet 3.