Programming

The Basics

HELLO!

I am Jan

I am here because I love influence young brilliant minds

You can find me at Slack

What is Programming?

We really want to be able to talk to developers and be taken seriously

Our Goal

You will be able to solve technical issues and take part in development teams

Learning Objective

- ✘ Develop a simple software through object oriented (OO) design and (OO)programming.
- ✘ Use tools and techniques for producing simple software application from a structured or unstructured specification
- ✘ Demonstrate the use of the concepts and fundamentals of object-oriented programming through simple programming problems
- ✘ Demonstrate understanding of the concepts and fundamentals of object-oriented programming
- ✘ Demonstrate the use an object-oriented programming language to construct simple applications
- ✘ Be able to communicate effectively about development methods, techniques and programming concepts to a wider audience

The Exam

The exam is based on a mandatory mini project which the students have to work on during the semester. It's an **Individual oral exam based on written group product.**

Mandatory Assignments

1. Software Requirements Specification – The overall system
2. Software Requirements Specification – Which components you're going to build
3. UML class-diagram with considerations
4. Online Quiz

Oral Exam

1. We'll discuss the report and the different approaches and designs chosen
2. We'll go through some of your code and have you explain how it is working
3. We'll ask you to reflect on your work and suggest alternative solutions and improvements

In order to participate in the oral exam, the written product must be handed in before the oral exam; by the set deadline.

Deadlines

Handin of exam paper: 03/05

Exam dates: 20/06–24/06

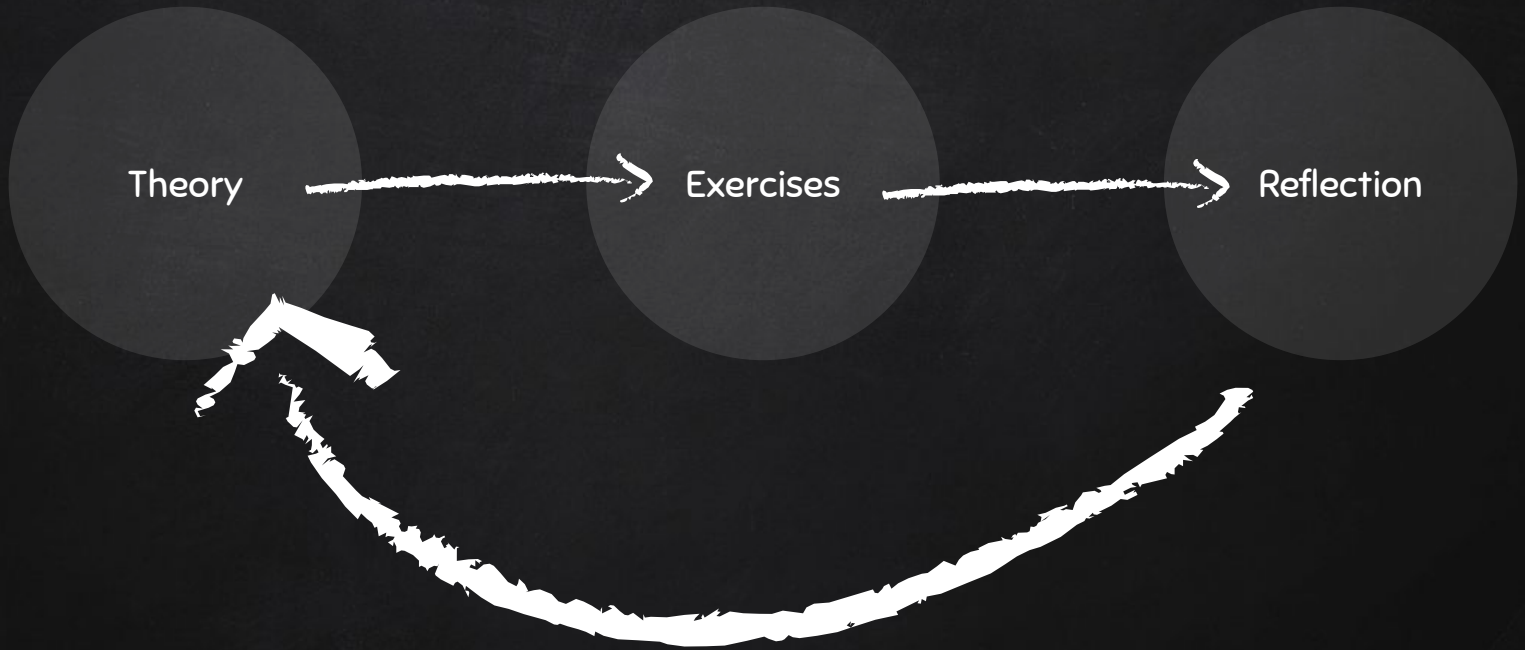
1. Deadline: 08/03
2. Deadline: 15/03
3. Deadline: 12/04
4. Deadline: 16/04

Craftsmanship

Learn the Lingo, Master the Techniques

Accept the Struggles

Our Approach



Today's Agenda

- ✘ Types
- ✘ Operators
- ✘ Expressions
- ✘ Bindings
- ✘ Functions
- ✘ Loops
- ✘ Statements

I'll go through the fundamentals and then we'll do some examples together.

Types

String, Number, Boolean, Empty, (array), (object)

Operators

Putting an operator between two values will apply it to those values and produce a new value.

Operators

Equals	==
NOT-Equals	!=
Math	+ - * /
AND, OR	&& , ||

Expressions

A fragment of code that produces a value is called an expression.


EXAMPLE
var firstName = “Jan”;
||
var age = presentYear – birthYear;

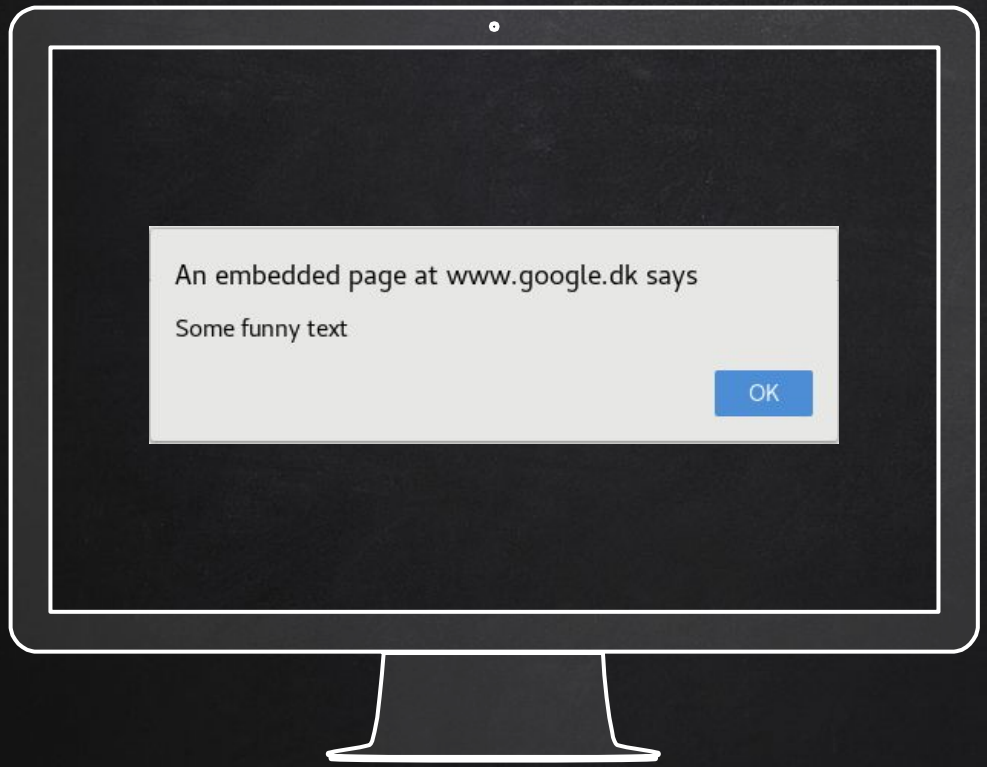
Bindings

To catch and hold values, JavaScript provides a thing called a binding, or variable.

Functions

A function is a piece of program wrapped in a value.

Perhaps the most important part of programming!



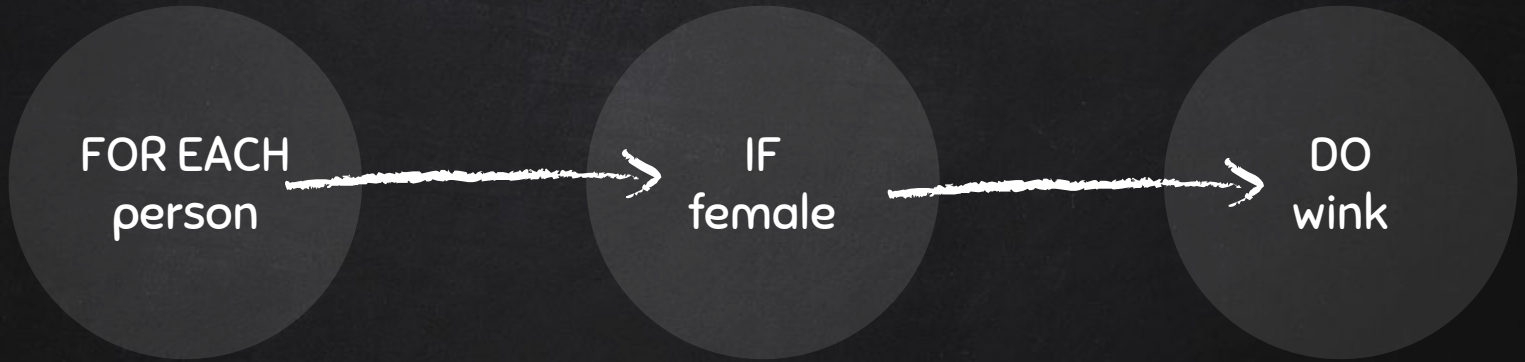
1. Open Chrome or Safari
2. Go to Google.com
3. Right Click somewhere and choose Inspect Element
4. Go to Console
5. Type: alert("Some funny text");
6. Be Amazed!

Functions

Functions are defined by the programmer and often used to divide the program into small sections that each takes part of the logic.


Let's
Imagine
a
Loop

Our process is easy



Statements

if (gender == “female”)

||

If (isFemale == true)


NOT SURE IF WASTING TIME
OR GAIN UNDERSTANDING

It's a Match!

Du og Hot Bot synes godt om hinanden.

Case

1. What information should we store for each user and of which types?
2. Which functions might we develop?
3. Which loops could you imagine Tinder has implemented?
4. Could you come up with two examples of if-statements being used?

Fizz-buzz

The "Fizz-Buzz test" is an interview question designed to help filter out the 99.5% of programming job candidates who can't seem to program their way out of a wet paper bag. The text of the programming assignment is as follows:

"Write a program that prints the numbers from 1 to 100. But for multiples of three print “Fizz” instead of the number and for the multiples of five print “Buzz”. For numbers which are multiples of both three and five print “FizzBuzz”."

Next time!

- Exercises tomorrow where you'll set up your environments (fancy way of saying computer)

- Please read the first two chapters of our book for the next lecture