

# 01-Functions and Methods

## Introduction

We have discussed grouping together actions. Naming them was something that is obvious in real life. The same goes for programming - it is possible to give a block of code a name and ask the computer to execute the code.

In this lecture we will discuss the function (or method) concept. We will spend a lot of time on this concept since it is important to get right.

## Purpose

In programming languages such as C, C++ and Java code is structured using functions/methods. In practice it would be pointless to learn such languages without proper knowledge of functions/methods.

The purpose of this lecture is to teach the function/method concept and in doing so making it possible for the student to write more meaningful programs.

## Requirements

variable block operator expression

## Videos

- [Programming/function/function-small.webm](#)

## Reading instructions

Wikipedia links for the keen student:

- <https://en.wikipedia.org/wiki/Subroutine>

## Goal

The student shall:

- understand the function/method concept
- understand the life time of variables in functions/methods

- read and understand code using functions/methods
- write new functions/methods
- decide what return type to use for a method

## **Exam instructions**

All exercises are examples of exam questions.