

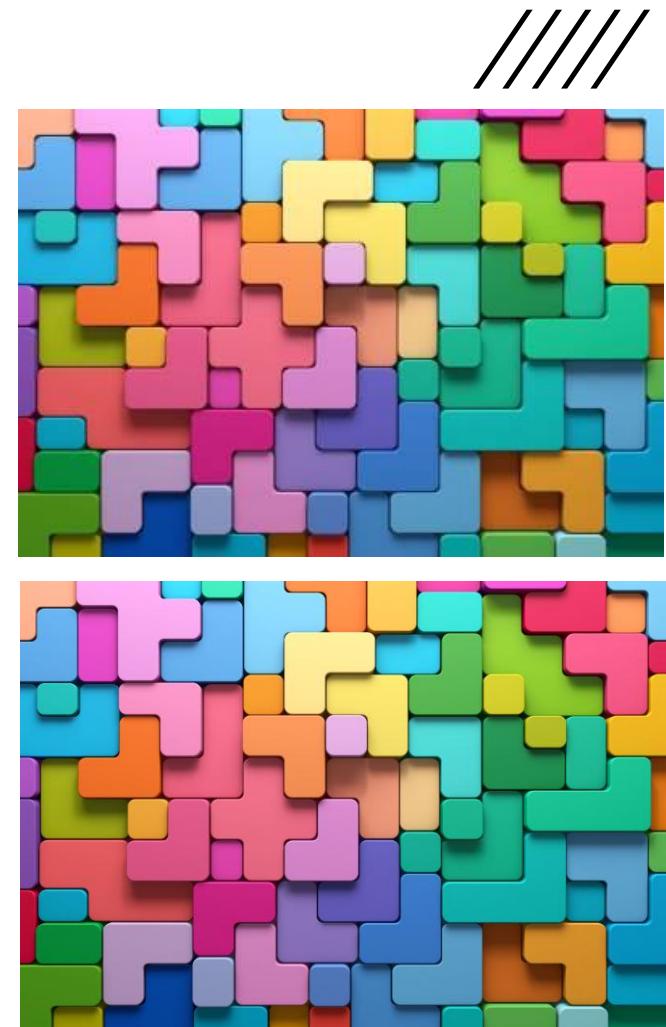


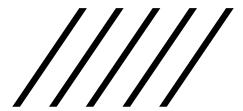
BLANDET PROGRAMMERING

FORELESNING 23

MANDAG 10/11

(bilder generert av bing image creator)





L I V E K O D I N G :
P R O F I L E R I N G
A V
M I N N E B R U K



cProfile

- **ncalls**: The number of times the function is called
- **tottime**: Time spent inside the function without sub-functions it calls
- **cumtime**: Time spent inside the function *and* inside functions it calls
- **per call**: **cumtime** divided by the number of calls



Visual Studio Installer

Modifying — Visual Studio Build Tools 2022 — 17.11.5

[Workloads](#) [Individual components](#) [Language packs](#)[Installation locations](#)

Desktop & Mobile (4)



Desktop development with C++

Build modern C++ apps for Windows using tools of your choice, including MSVC, Clang, CMake, or MSBuild.



.NET Multi-platform App UI development

Build Android, iOS, Windows, and Mac apps from a single codebase using C# with .NET MAUI.



.NET desktop build tools

Tools for building WPF, Windows Forms, and console applications using C#, Visual Basic, and F#.



Windows application development build tools

Build applications for the Windows platform using WinUI with C# or optionally C++.



Web & Cloud (4)



Web development build tools

MSBuild tasks and targets for building web applications.



Azure development build tools

MSBuild tasks and targets for building Azure applications.



Office/SharePoint build tools

Build Office and SharePoint add-ins, and VSTO add-ins.



Data storage and processing build tools

Build SQL Server Database Projects



Location

C:\Program Files (x86)\Microsoft Visual Studio\2022\BuildTools

[Remove out-of-support components](#)

By continuing, you agree to the [license](#) for the Visual Studio edition you selected. We also offer the ability to download other software with Visual Studio. This software is licensed separately, as set out in the [3rd Party Notices](#) or in its accompanying license. By continuing, you also agree to those licenses.

Total space required 4.04 GB

[Install while downloading](#) [Modify](#)

SDKs, libraries, and frameworks

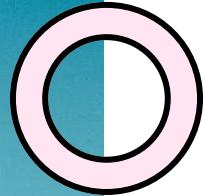
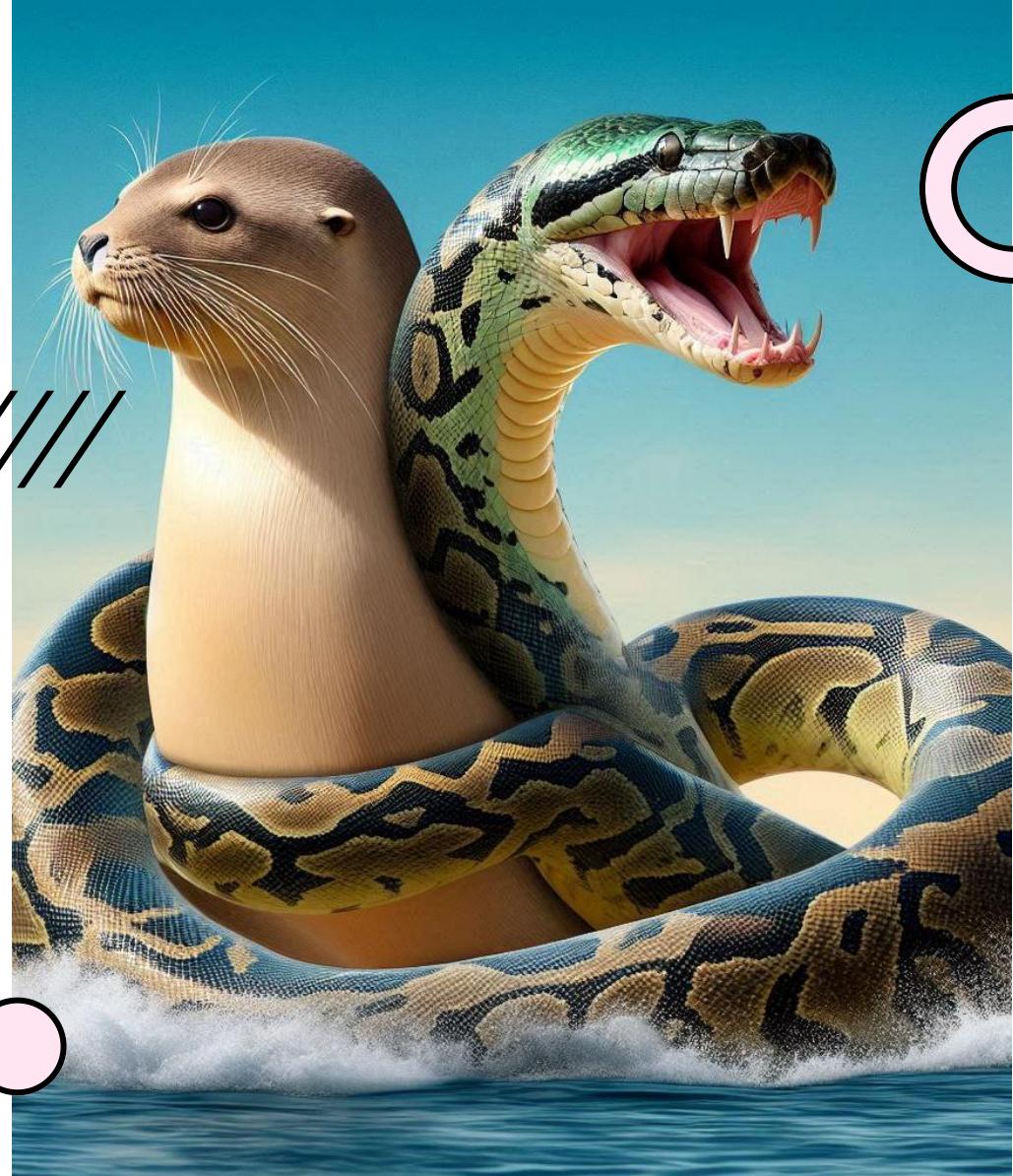
- Windows 10 SDK (10.0.18362.0)
- Windows 10 SDK (10.0.19041.0)
- Windows 10 SDK (10.0.20348.0)
- Windows 11 SDK (10.0.22000.0)
- Windows 11 SDK (10.0.22621.0)
- Windows 11 SDK (10.0.26100.0)

Compilers, build tools, and runtimes

- C++ Modules for v143 build tools (x64/x86 – experimental)
- MSVC v141 - VS 2017 C++ x64/x86 build tools (v14.16)
- MSVC v141 - VS 2017 C++ x64/x86 Spectre-mitigated libs (v14.16)
- MSVC v142 - VS 2019 C++ x64/x86 build tools (v14.29-16.11)
- MSVC v142 - VS 2019 C++ x64/x86 Spectre-mitigated libs (v14.29-16.11)
- MSVC v143 - VS 2022 C++ x64/x86 build tools (Latest)
- MSVC v143 - VS 2022 C++ x64/x86 build tools (v14.30-17.0) (Out of support)
- MSVC v143 - VS 2022 C++ x64/x86 build tools (v14.31-17.1) (Out of support)

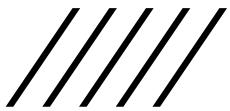
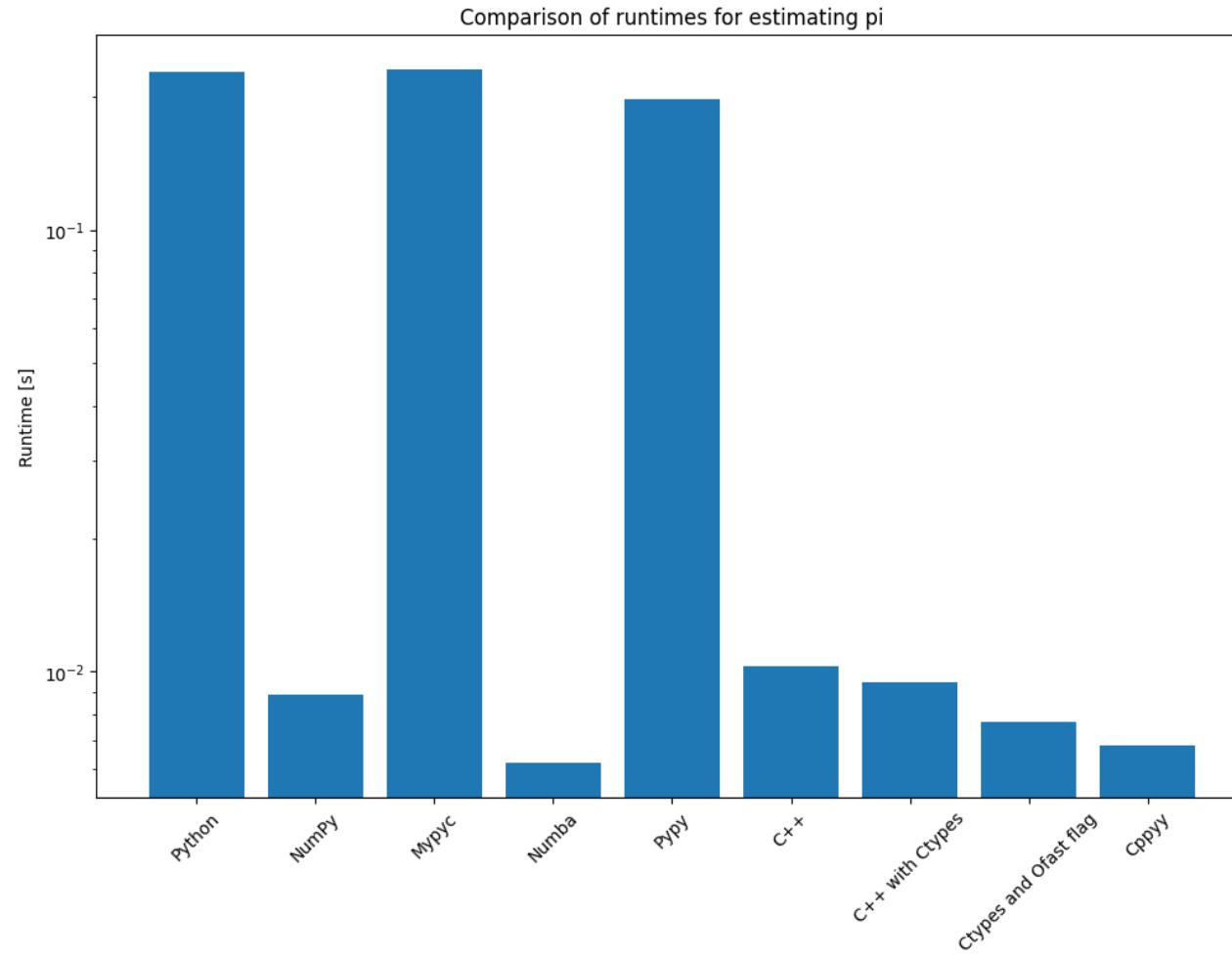


L I V E K O D I N G :
B L A N D E T
P R O G R A M -
M E R I N G





OBS: Kan variere med OS og maskin





Etter forelesningen

- Forelesningsopptak fra de tre siste forelesningene (og denne) kommer så fort vi får publisert dem

