

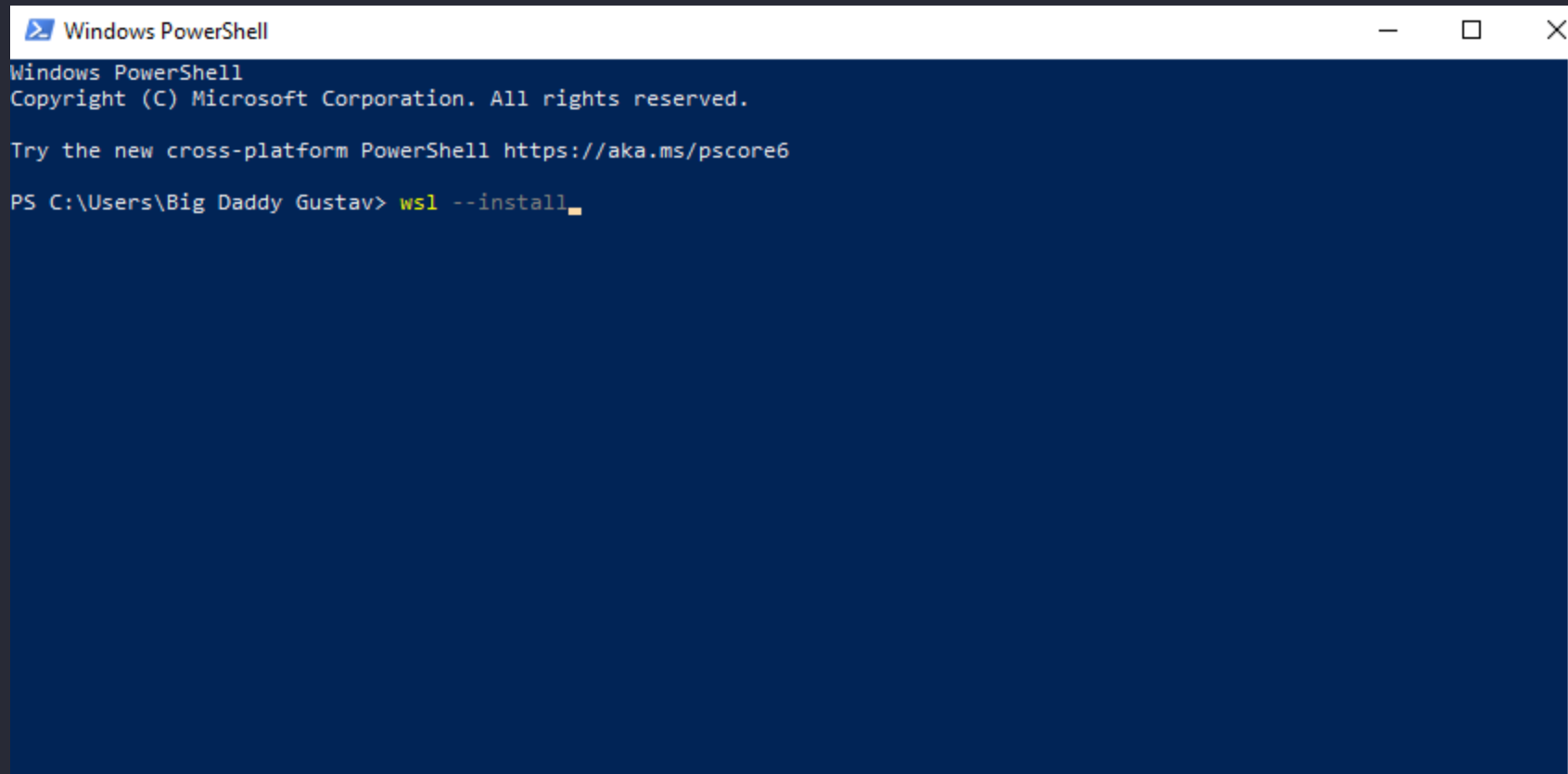
# Haskell Workshop

## Installera Haskell (utan docker)

- Vad är Docker egentligen?
- Vad är WSL
- Installera WSL
- Installera Haskell på WSL/Linux
- Haskell trickzz
- Troubleshooting

# Installera WSL

I Powershell kör: `wsl --install`

A screenshot of a Windows PowerShell terminal window. The window has a title bar with the text 'Windows PowerShell' and standard minimize, maximize, and close buttons. The terminal content shows the PowerShell prompt 'PS C:\Users\Big Daddy Gustav>' followed by the command 'wsl --install' being entered. Above the prompt, there is a message about the new cross-platform PowerShell and a link to 'https://aka.ms/pscore6'. The terminal background is dark blue, and the text is white. The command 'wsl --install' is highlighted in yellow in the original image.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Big Daddy Gustav> wsl --install
```

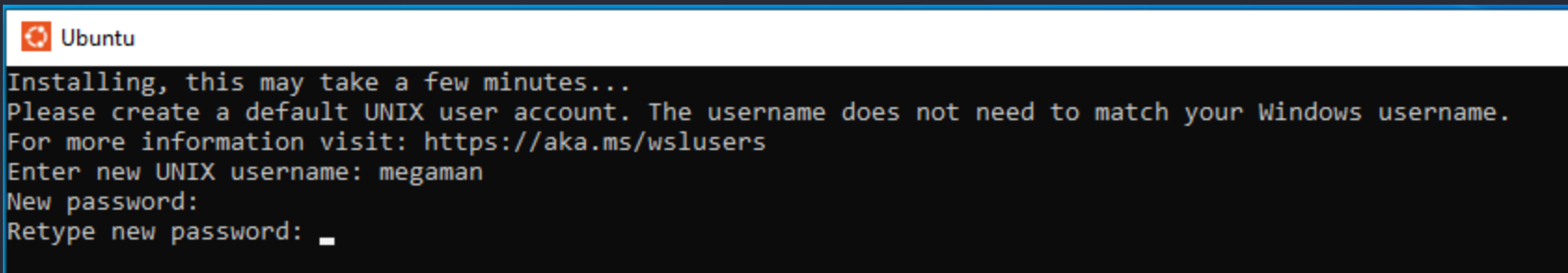
# Konfigurera WSL

Öppna upp **Ubuntu** i startmenyn.

Skriv in ditt önskade användarnamn och lösenord

```
$ Enter new UNIX username: <a good name here>  
$ New password: <a good password here>
```

Lösenordet du skriver in kommer inte att synas men det skrivs fortfarande.

A screenshot of the Ubuntu WSL installation window. The window has a title bar with the Ubuntu logo and the word "Ubuntu". The main content area is black with white text. It says "Installing, this may take a few minutes..." followed by "Please create a default UNIX user account. The username does not need to match your Windows username. For more information visit: https://aka.ms/wslusers". Below this, it prompts "Enter new UNIX username: megaman" and "New password:". The "New password:" prompt is followed by a series of dots, indicating that the password is being masked. The "Retype new password:" prompt is also followed by a series of dots.

```
Ubuntu  
Installing, this may take a few minutes...  
Please create a default UNIX user account. The username does not need to match your Windows username.  
For more information visit: https://aka.ms/wslusers  
Enter new UNIX username: megaman  
New password: .....  
Retype new password: .....
```

# Uppdatera Ubuntu

I WSL kör: `sudo apt update && apt upgrade`

Programmet kan fråga om bekräftelse likt: `.. continue? [Y/n]?`

Skriv bara `y` och enter.

P.S

Notera att Y är stor bokstav i `[Y/n]`.

Detta innebär att `y` väljs om man klickar enter utan att skriva

```
root@DESKTOP-3RJDVPJ: ~  
root@DESKTOP-3RJDVPJ:~# sudo apt update && apt upgrade  
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease  
Get:2 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]  
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]  
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]  
Get:5 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [714 kB]  
Get:6 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
```

# Installera Haskell's beroenden

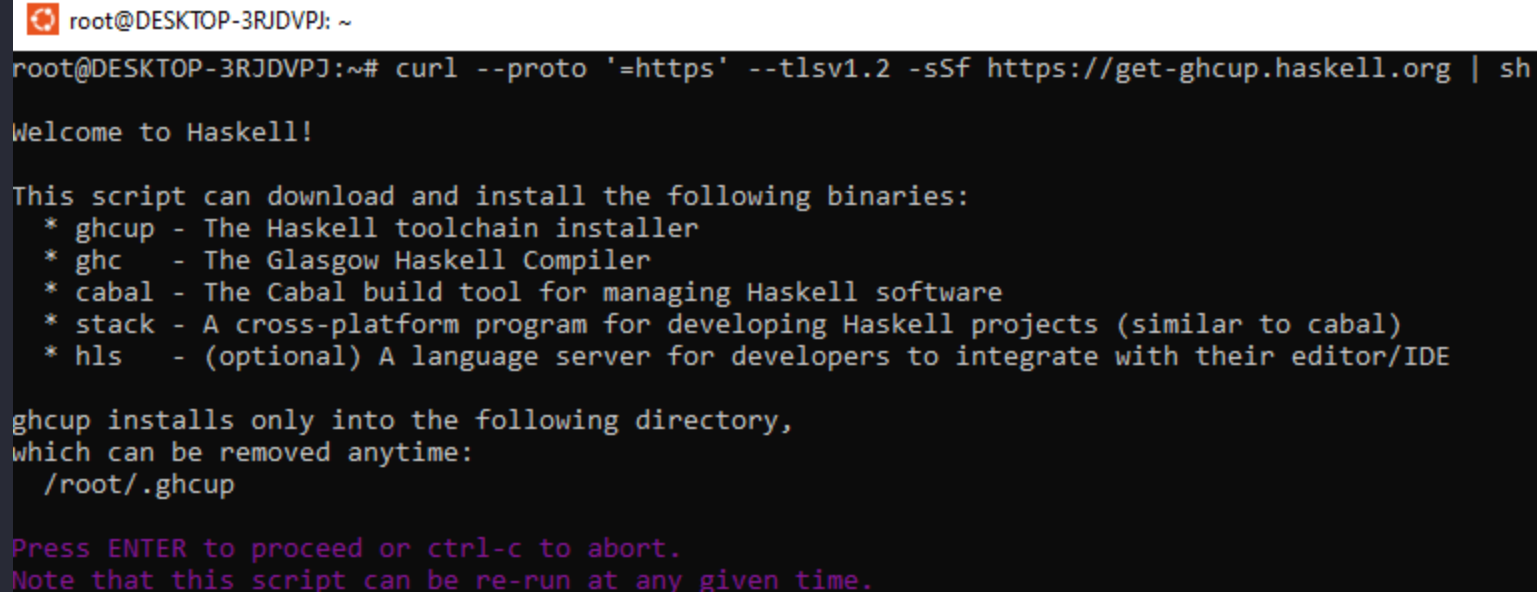
För att installera Haskell behövs vissa paket. Installera dessa genom att skriva:

```
sudo apt install build-essential curl libffi-dev libffi8ubuntu1  
libgmp-dev libgmp10 libncurses-dev libncurses5 libtinfo5
```

# Installera Haskell (wooho)

Kopiera installations scriptet från [www.haskell.org/ghcup](http://www.haskell.org/ghcup) och kör det

```
curl --proto '=https' --tlsv1.2 -sSf https://get-ghcup.haskell.org | sh
```



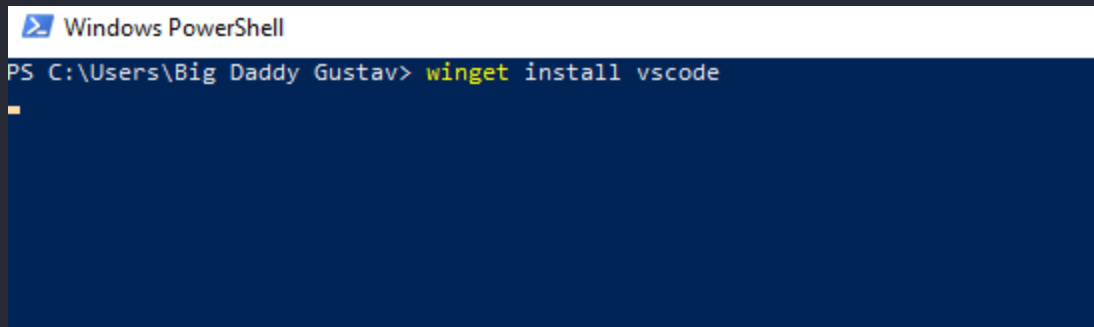
A terminal window with a title bar showing 'root@DESKTOP-3RJDVPJ: ~'. The terminal displays the output of the command 'curl --proto '=https' --tlsv1.2 -sSf https://get-ghcup.haskell.org | sh'. The output includes a welcome message, a list of binaries that can be installed, and instructions on where the installation directory is located and how to proceed.

```
root@DESKTOP-3RJDVPJ: ~  
root@DESKTOP-3RJDVPJ:~# curl --proto '=https' --tlsv1.2 -sSf https://get-ghcup.haskell.org | sh  
Welcome to Haskell!  
  
This script can download and install the following binaries:  
* ghcup - The Haskell toolchain installer  
* ghc   - The Glasgow Haskell Compiler  
* cabal - The Cabal build tool for managing Haskell software  
* stack - A cross-platform program for developing Haskell projects (similar to cabal)  
* hls   - (optional) A language server for developers to integrate with their editor/IDE  
  
ghcup installs only into the following directory,  
which can be removed anytime:  
  /root/.ghcup  
  
Press ENTER to proceed or ctrl-c to abort.  
Note that this script can be re-run at any given time.  
_
```

# Installera Code

Om du inte redan installerat VSCode kan du göra det nu.

I Powershell, kör `winget install vscode`

A screenshot of a Windows PowerShell terminal window. The title bar at the top says "Windows PowerShell". The command prompt shows the user's name as "Big Daddy Gustav" and the current directory as "C:\Users\Big Daddy Gustav". The command "winget install vscode" has been entered and executed, resulting in a blank line below it.

```
Windows PowerShell
PS C:\Users\Big Daddy Gustav> winget install vscode
```

# Installera extensions

Du behöver, WSL, Haskell, Haskell Syntax Highlighting

The screenshot shows the Visual Studio Code interface with the 'Extension: WSL' page open. The left sidebar displays a list of extensions, with 'WSL' by Microsoft at the top. A red arrow points to the 'wsl' search filter in the search bar. Another red arrow points to the 'Install' button for the 'WSL' extension. A third red arrow points to the 'Linux/Unix...' extension. The main panel shows the details for the 'WSL' extension, including its version (v0.81.0), publisher (Microsoft), and a five-star rating. The 'Install' button is highlighted with a red arrow. The bottom of the screen shows the 'Visual Studio Code WSL' title.

File Edit Selection View Go Run Terminal Help

Extension: WSL - First test - Visual Studio Code

EXTENSION: WSL

WSL v0.81.0 Preview

Microsoft microsoft.com | 21,177,775 | ★★★★★

Open any folder in the Windows Subsystem for Linux (WSL) and

Install

★ This extension is recommended because you have Windows Subsystem

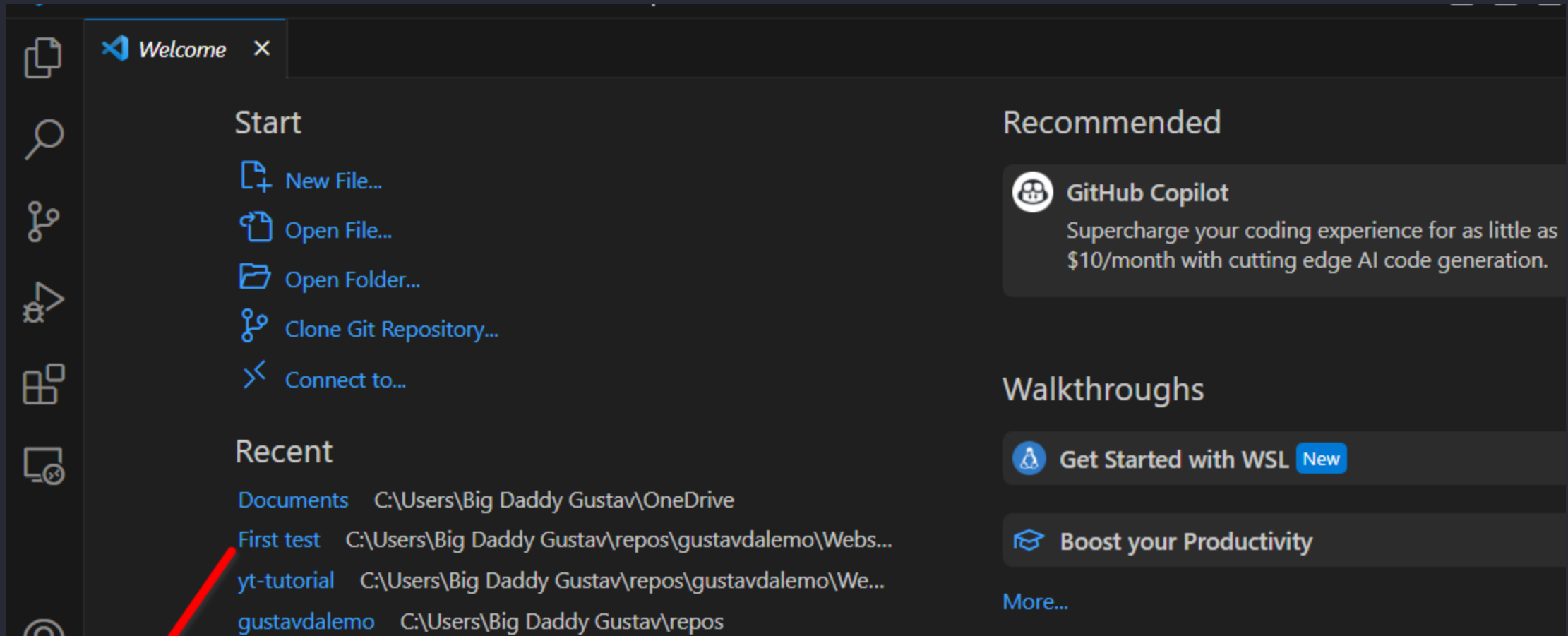
DETAILS FEATURE CONTRIBUTIONS CHANGELOG

Visual Studio Code WSL



# Använda WSL i Code

Vänstra hörnet visar status

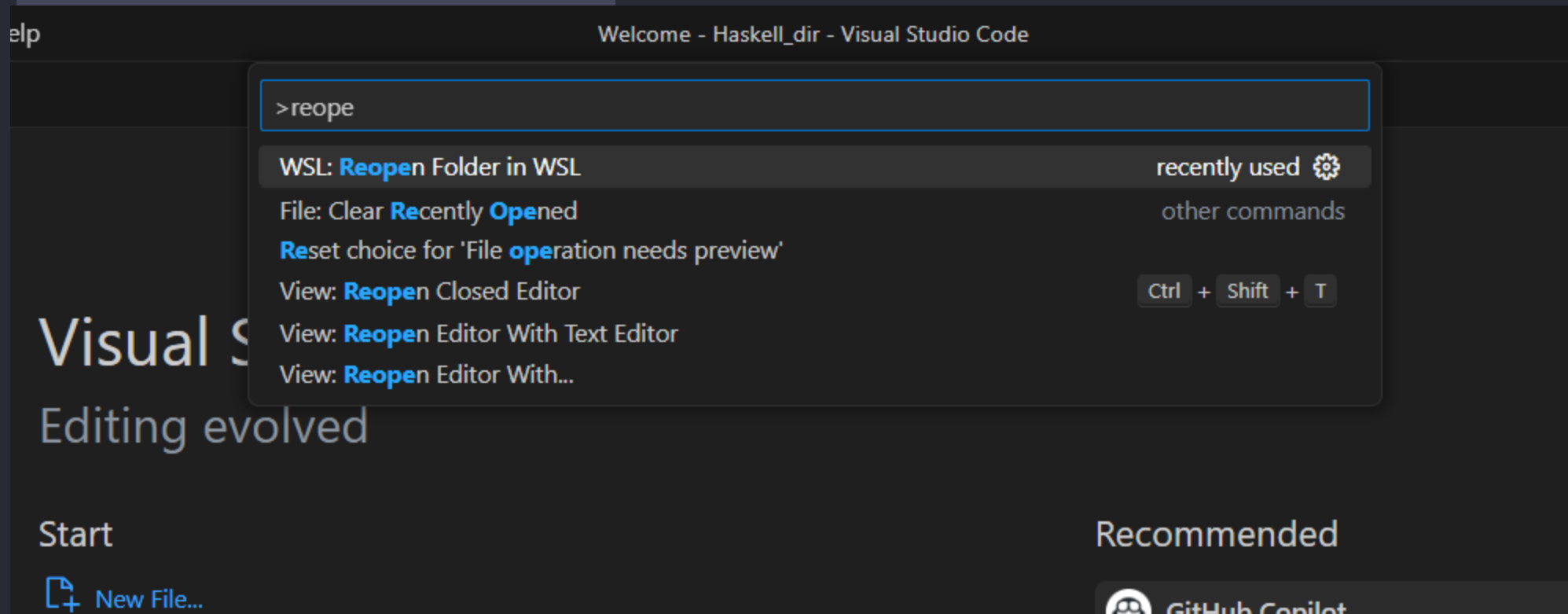


# Använda WSL i Code

Öppna mappen du har öppen i WSL.

CTRL + SHIFT + P

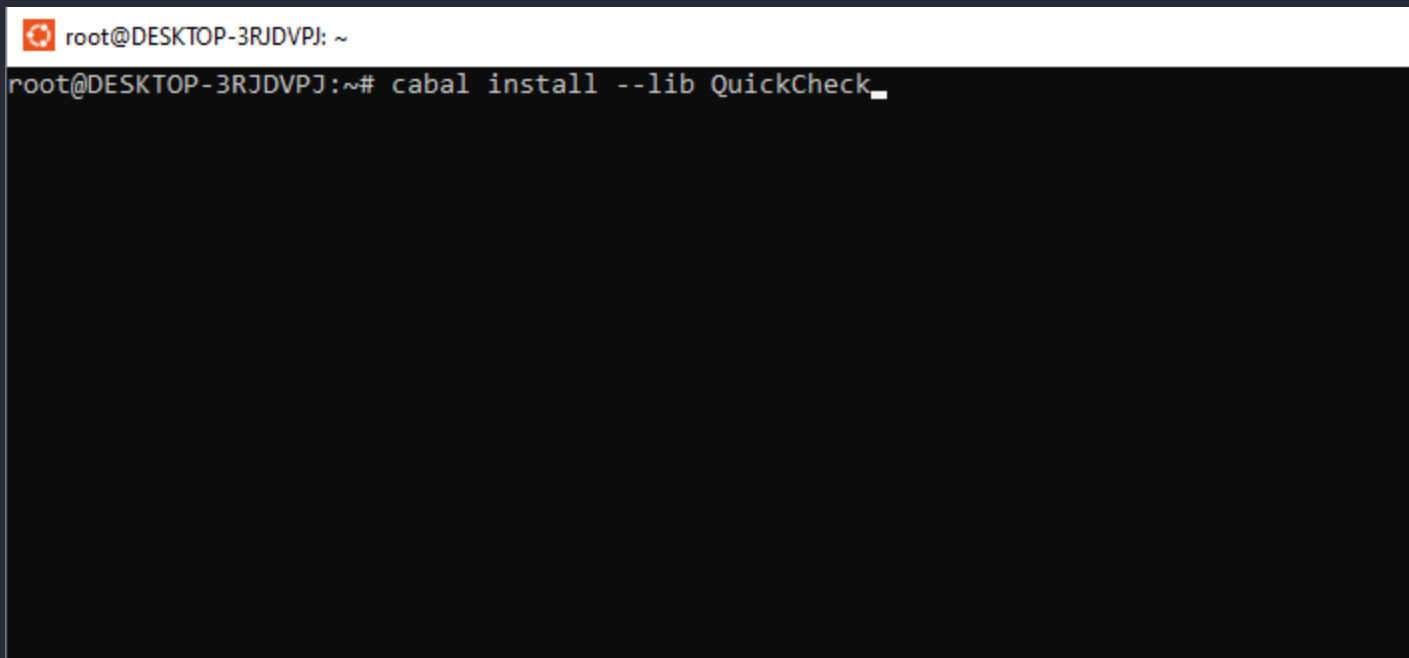
> Reopen Folder in WSL



# Installera bibliotek i Haskell

För att installera exempelvis QuickCheck, kör:

```
cabal install --lib QuickCheck
```

A terminal window with a white title bar containing a red icon and the text 'root@DESKTOP-3RJDVPJ: ~'. The terminal area has a black background with white text. The prompt 'root@DESKTOP-3RJDVPJ:~#' is followed by the command 'cabal install --lib QuickCheck' and a cursor. The rest of the terminal area is empty.

```
root@DESKTOP-3RJDVPJ: ~  
root@DESKTOP-3RJDVPJ:~# cabal install --lib QuickCheck_
```

# Troubleshooting













- Virtualisation är av
- HLS funkar inte
- Error när jag laddar hem haskell

# HLS funkar inte

Du kan behöva byta GHC version till en som stöds.

I WSL, kör: `ghcup tui`

Navigera med piltangenterna till det markerade och tryck `I` för att installera och sedan `s` för att välja.

	HLS	2.2.0.0	latest, recommended	
	HLS	2.1.0.0		
	HLS	2.0.0.1		
	HLS	2.0.0.0		
	HLS	1.10.0.0		
	HLS	1.9.1.0		
	cabal	3.10.1.0	latest	
	cabal	3.8.1.0		
	cabal	3.6.2.0	recommended	
	GHC	9.6.2	latest, base-4.18.0.0	hls-powered
	GHC	9.6.1	base-4.18.0.0	
	GHC	9.4.7	base-4.17.2.0	hls-powered