Mobile App Developer Set Up (Windows)

This guide is over-detailed for a reason. Every team member that goes through this set-up should fix any mistakes. The purpose being to speed up onboarding for future team members.

Mobile App Developer Set Up (Windows)

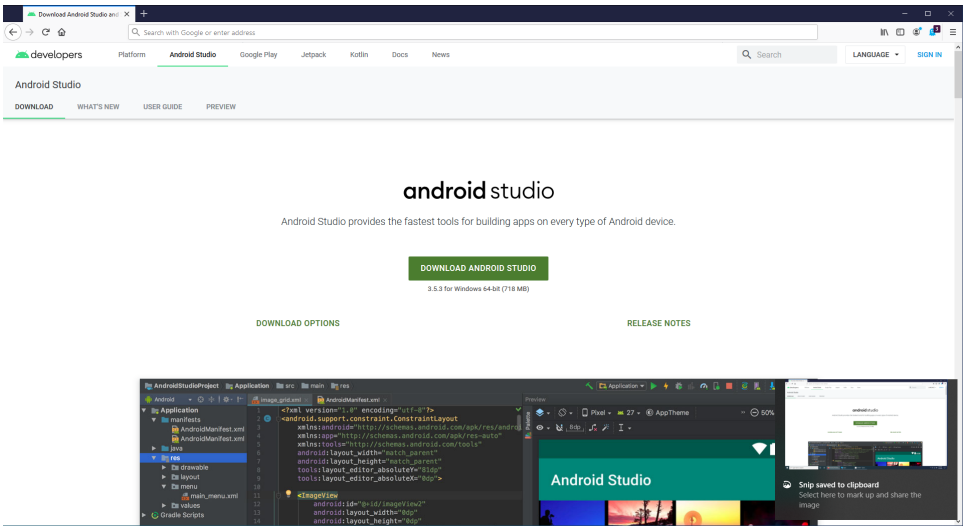
1. Install Android Studio
    - Part 2
    - Part 3 User Environment Variable
    - Part 4 System Variable PATH
2. Install Visual Studio Code
3. Install git-scm *WINDOWS ONLY*
4. bash_profile
5. Register GitLab Account
    - Add SSH Key
    - Clone the Repo
6. Install Node Version Manager
7. Install JDK
8. Install JavaScript Frameworks

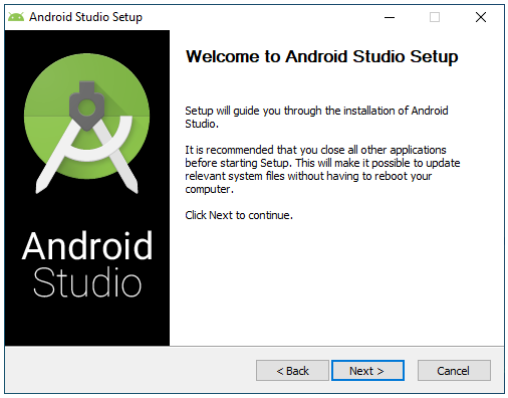
9. run the app in browser

10. Run Mobile App on device

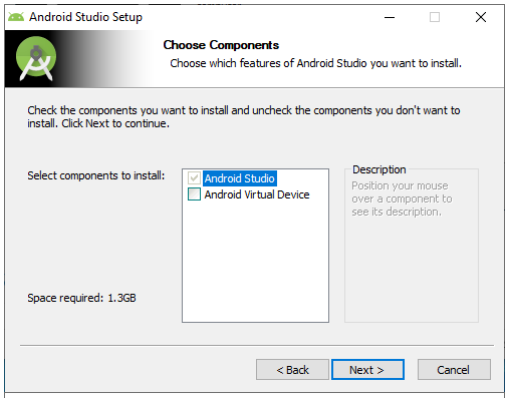
1. Install Android Studio

https://developer.android.com/studio/index.html

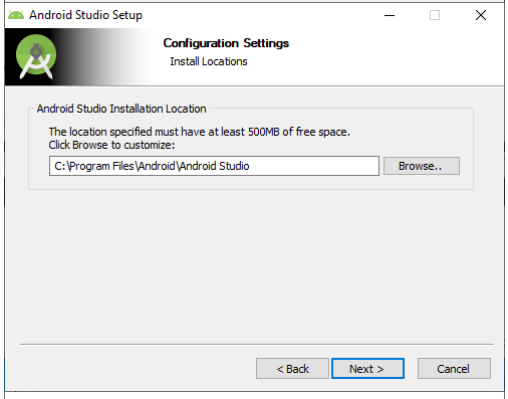


1. 

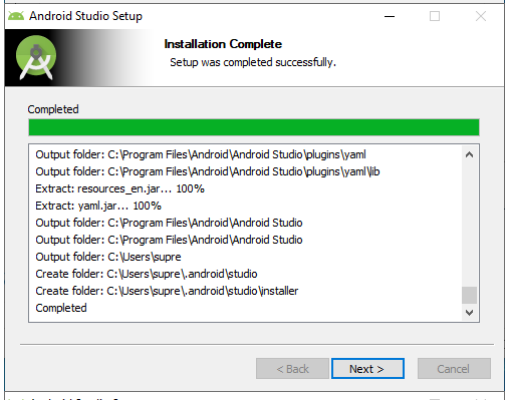
2.


Android Studio Setup
Choose Components
Choose which features of Android Studio you want to install.
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.
Select components to install:
Android Studio
Android Virtual Device
Description
Position your mouse over a component to see its description.
Space required: 1.3GB
< Back
Next >
Cancel

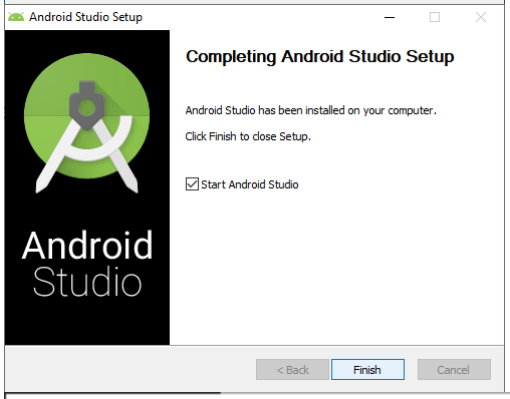
3.


Android Studio Setup
Configuration Settings
Install Locations
Android Studio Installation Location
The location specified must have at least 500MB of free space.
Click Browse to customize:
C:\Program Files\Android\Android Studio
Browse...
< Back
Next >
Cancel

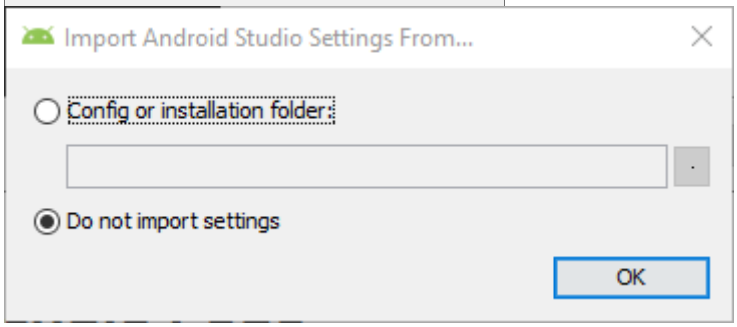
4.

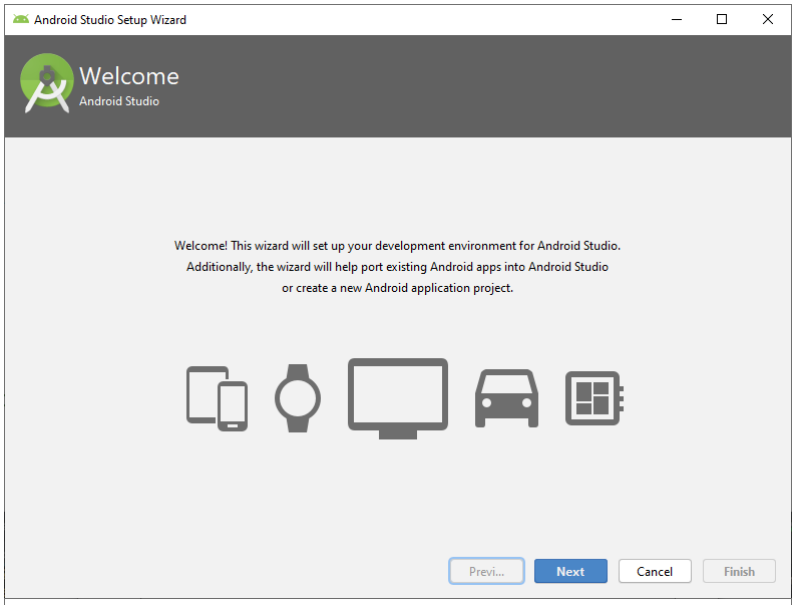

Android Studio Setup
Installation Complete
Setup was completed successfully.
Completed
Output folder: C:\Program Files\Android\Android Studio\plugins\yaml
Output folder: C:\Program Files\Android\Android Studio\plugins\yaml\lib
Extract: resources_en.jar... 100%
Extract: yaml.jar... 100%
Output folder: C:\Program Files\Android\Android Studio
Output folder: C:\Program Files\Android\Android Studio
Output folder: C:\Users\supre
Create folder: C:\Users\supre\.android\studio
Create folder: C:\Users\supre\.android\studio\installer
Completed
< Back
Next >
Cancel

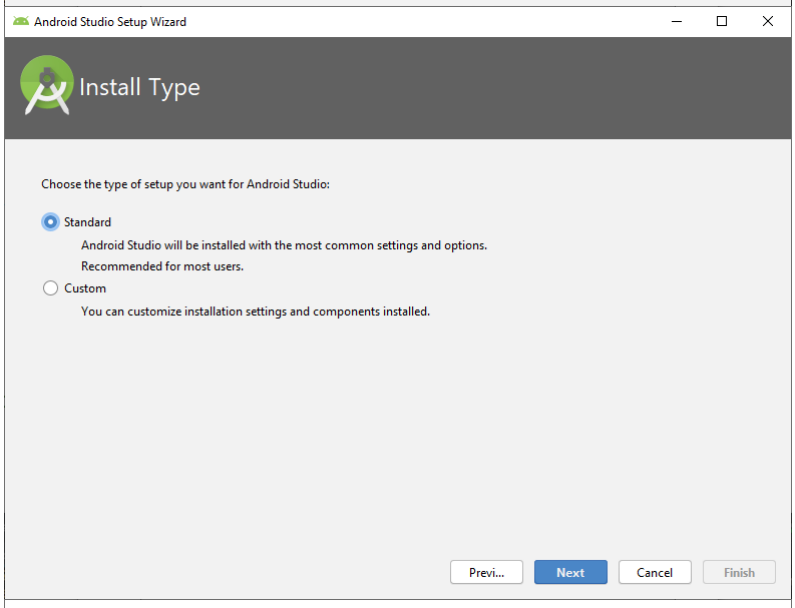
5.

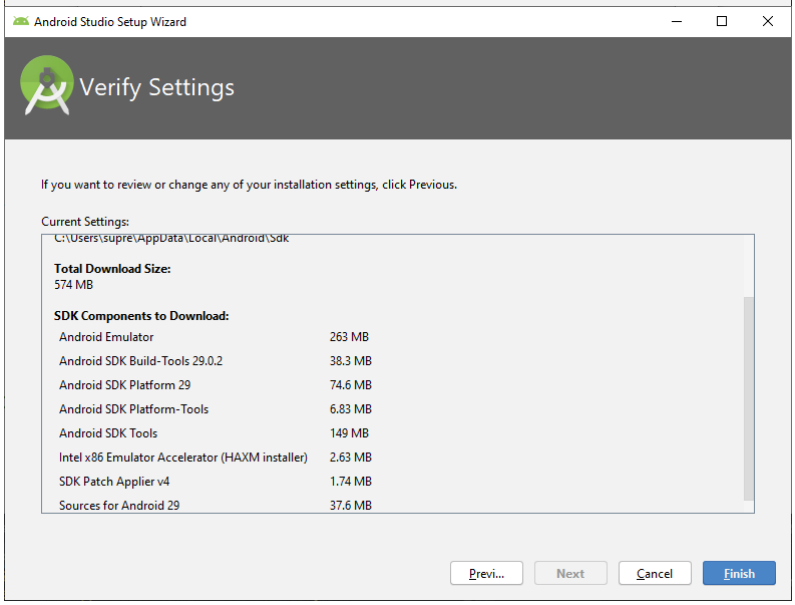

Android Studio Setup
Completing Android Studio Setup
Android Studio has been installed on your computer.
Click Finish to close Setup.
Start Android Studio
Android Studio
< Back
Finish
Cancel

6.

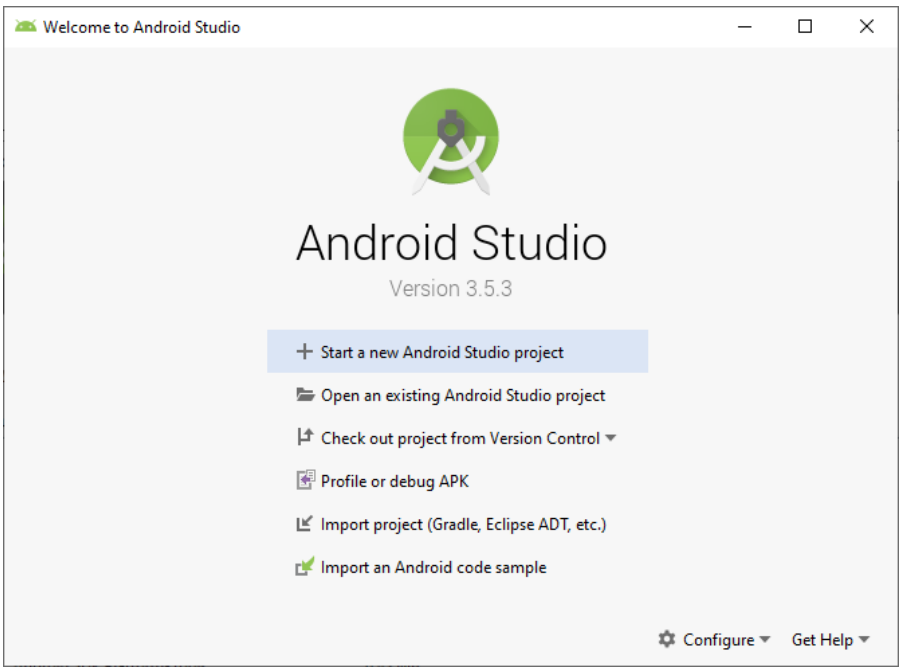

Import Android Studio Settings From...
Config or installation folder:
Do not import settings
OK

7. 

8. 

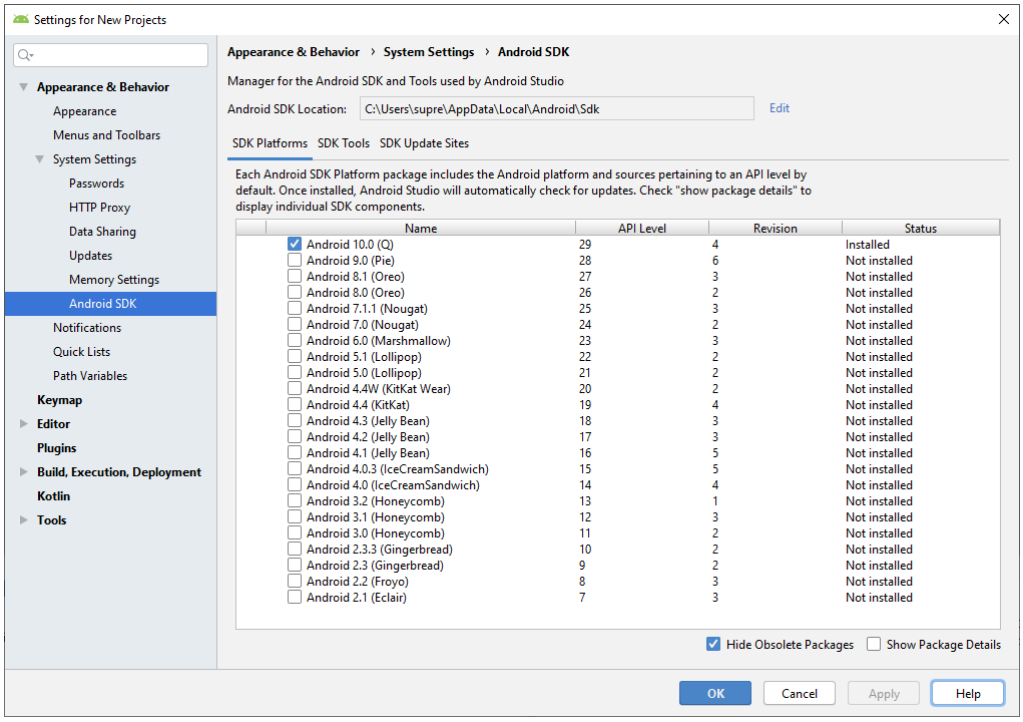
9. 

Finished

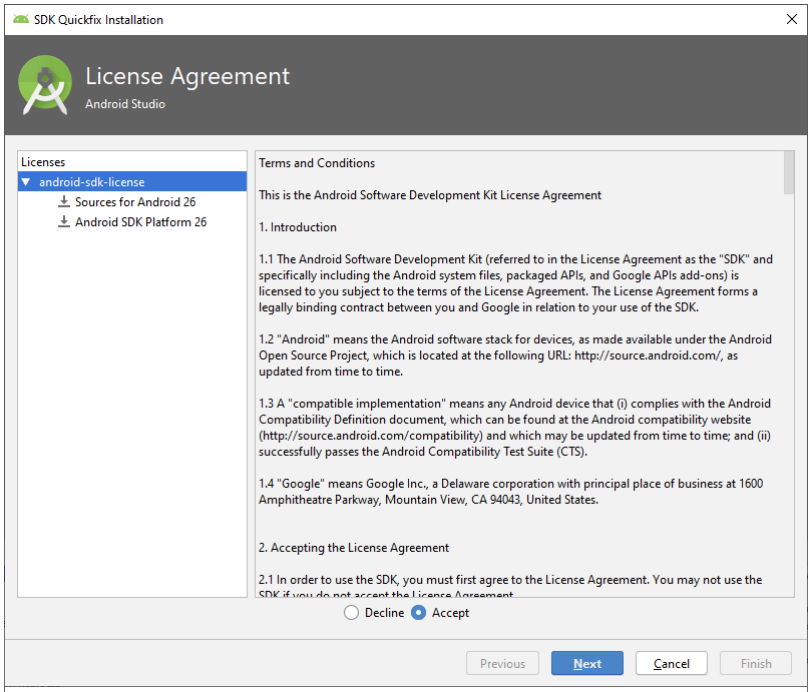


Part 2

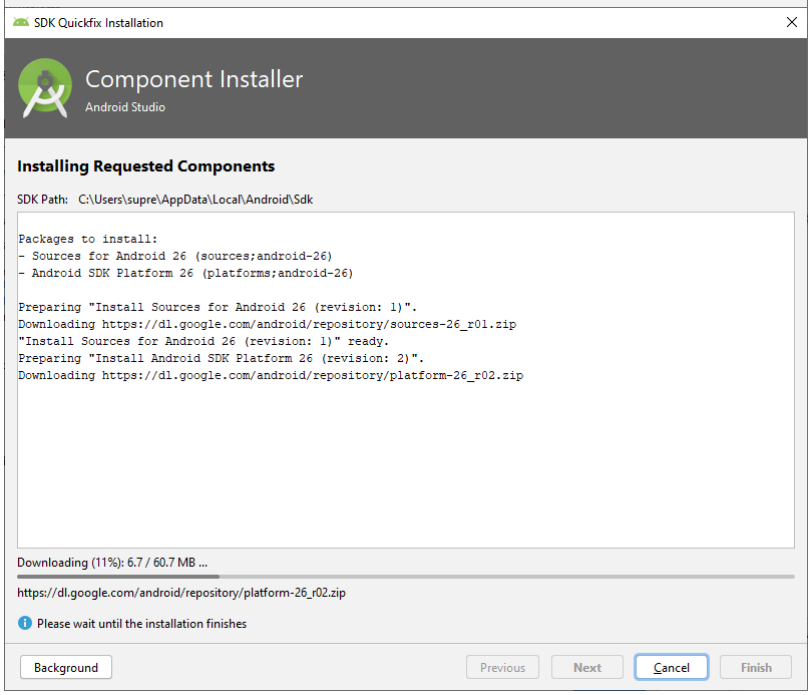
To build this project, accept the SDK license agreements and install the missing components using the **Android Studio SDK Manager**.

1. 

2.



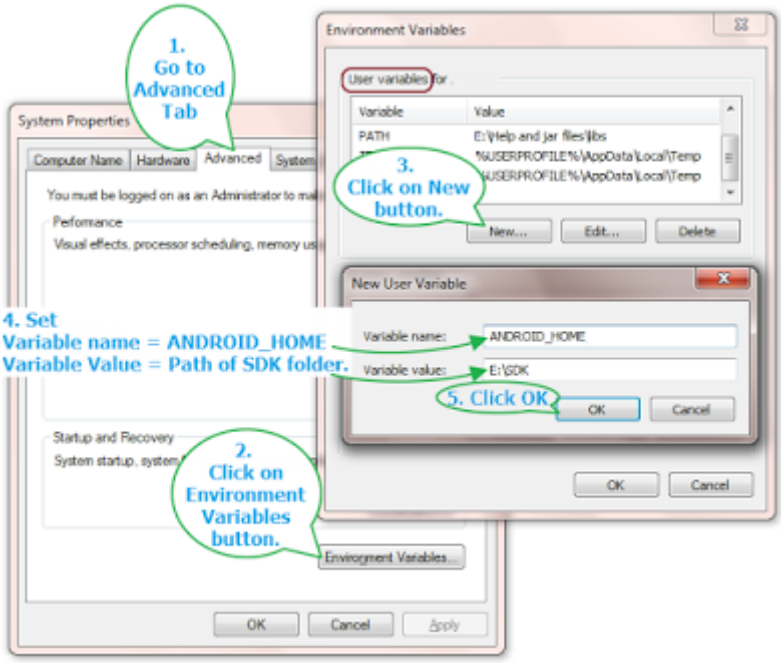
3.



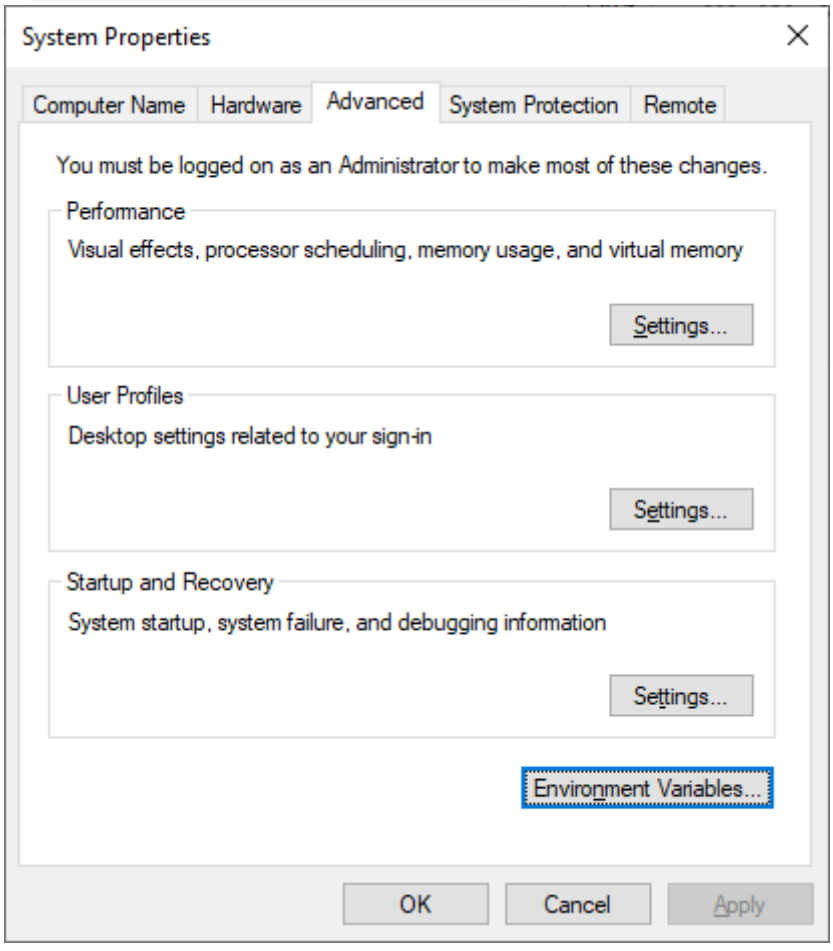
Part 3 User Environment Variable

this step is confusing it was changed from `ANDROID_HOME` to `ANDROID_SDK_ROOT`

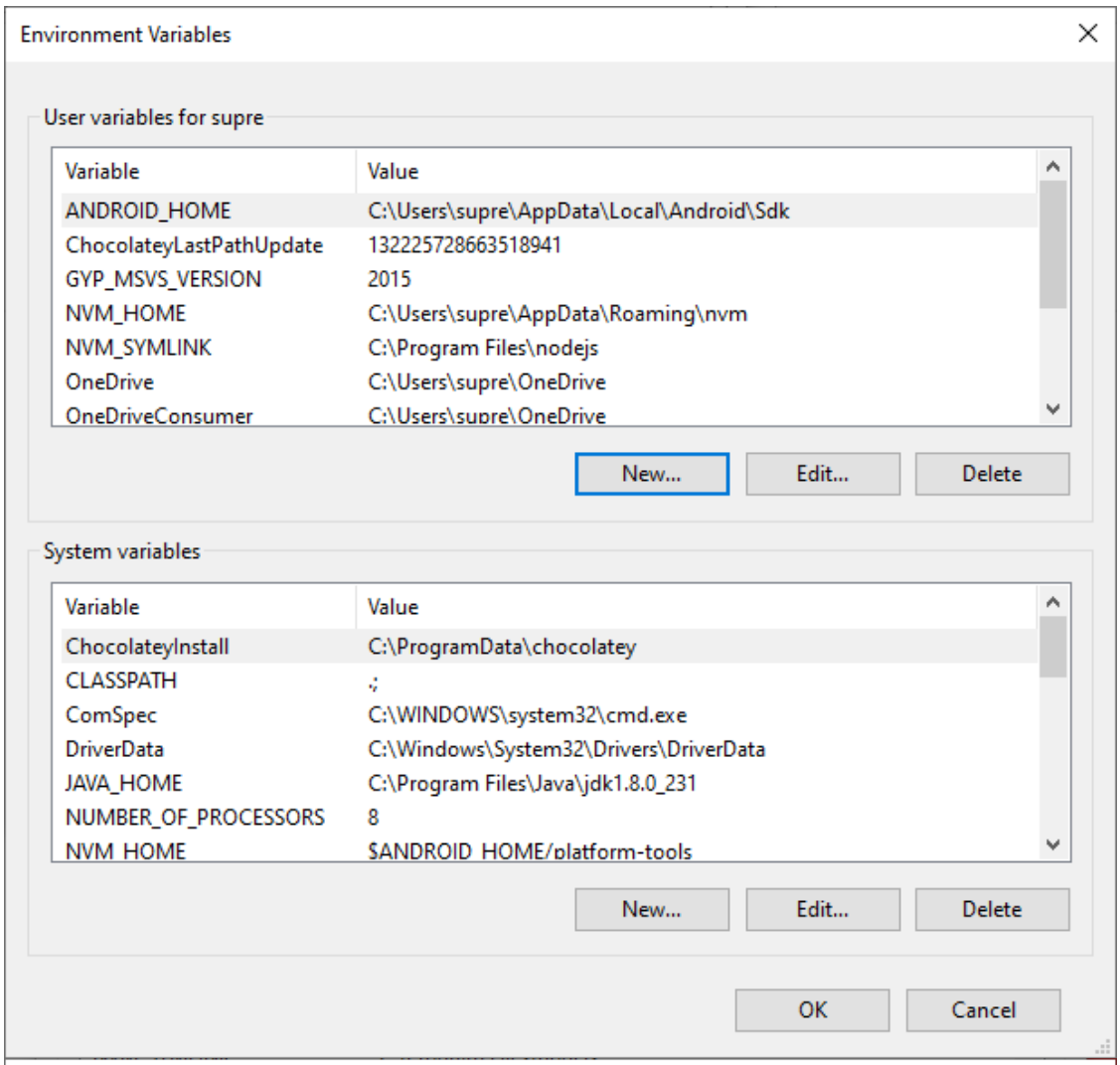
1.


1.
Go to
Advanced
Tab
2.
Click on
Environment
Variables
button.
3.
Click on New
button.
4. Set
Variable name = ANDROID_HOME
Variable Value = Path of SDK folder.
5. Click OK
System Properties
Computer Name
Hardware
Advanced
Environment Variables
User variables for
Variable
Value
PATH
New...
Edit...
Delete
New User Variable
Variable name:
ANDROID_HOME
Variable value:
E:\SDK
OK
Cancel
Startup and Recovery
Environment Variables...
Apply

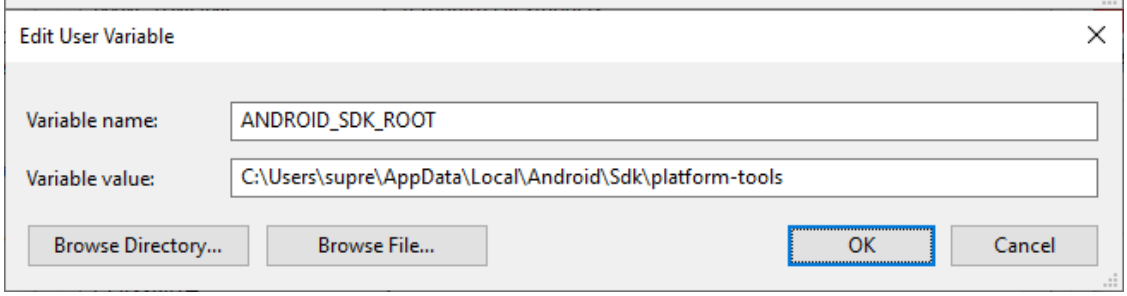
2.


System Properties
Computer Name
Hardware
Advanced
System Protection
Remote
You must be logged on as an Administrator to make most of these changes.
Performance
Visual effects, processor scheduling, memory usage, and virtual memory
Settings...
User Profiles
Desktop settings related to your sign-in
Settings...
Startup and Recovery
System startup, system failure, and debugging information
Settings...
Environment Variables...
OK
Cancel
Apply

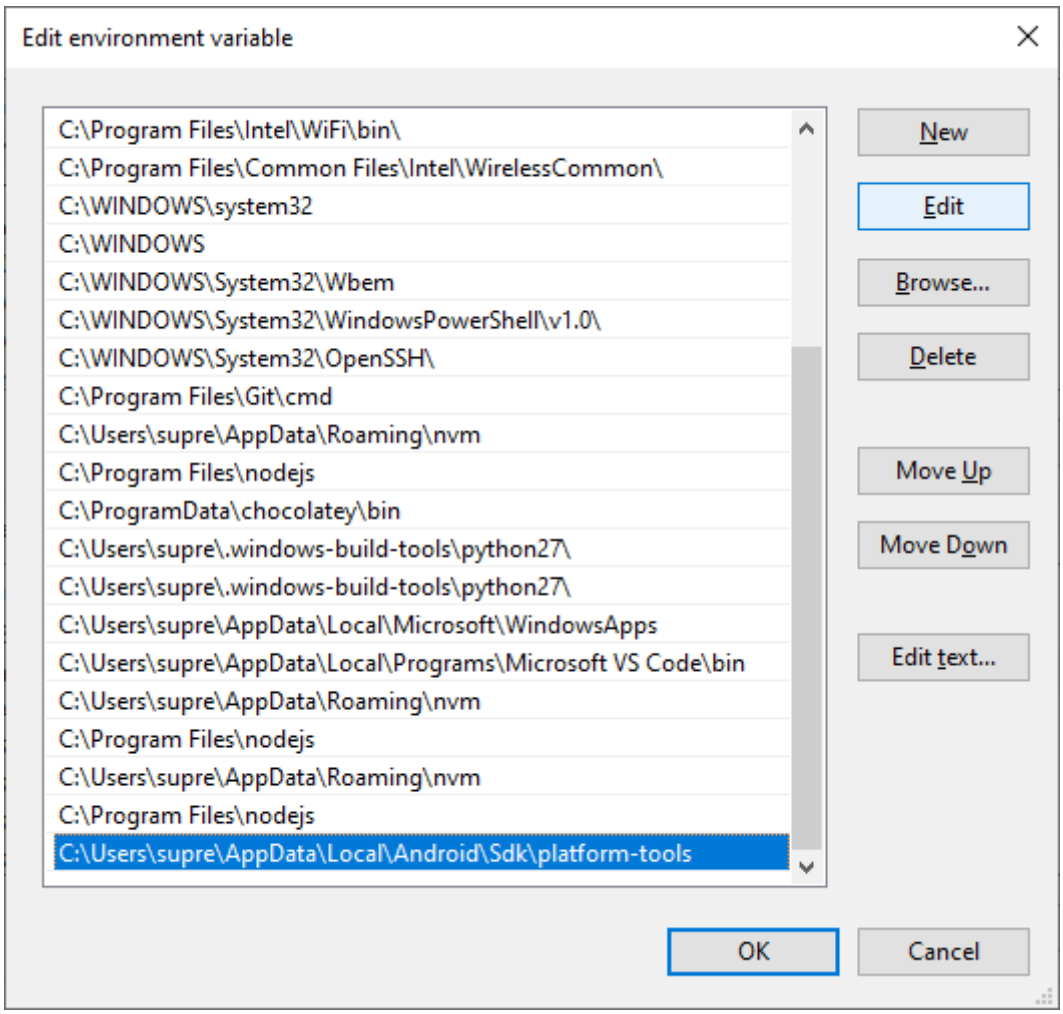
3.



4.

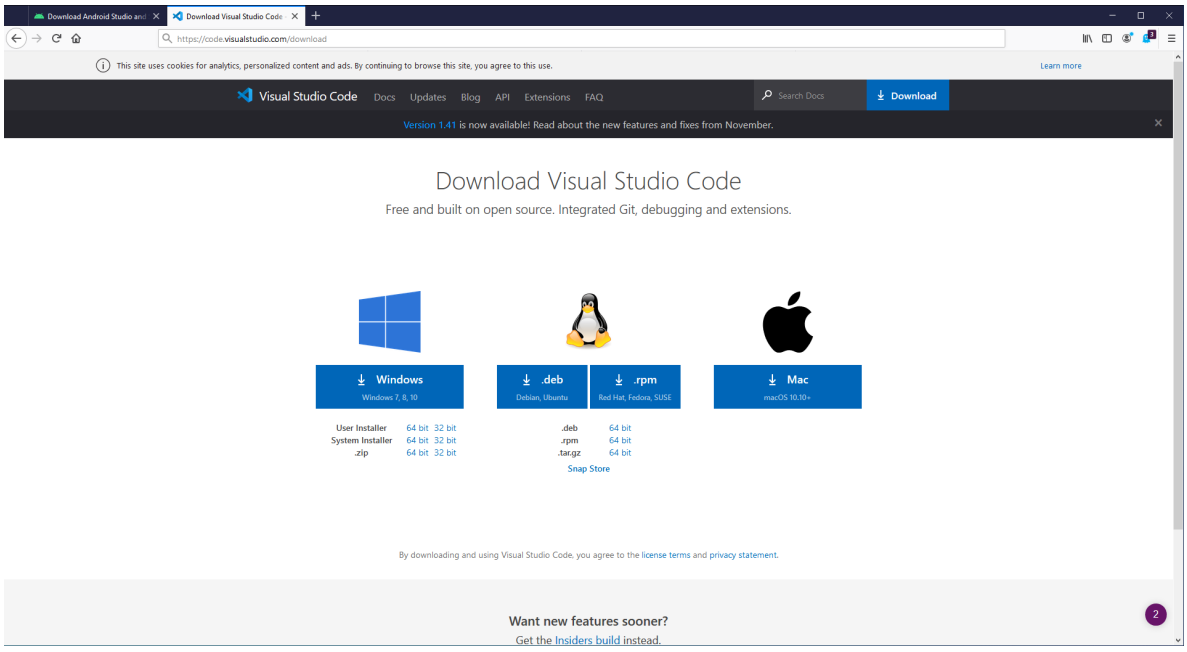


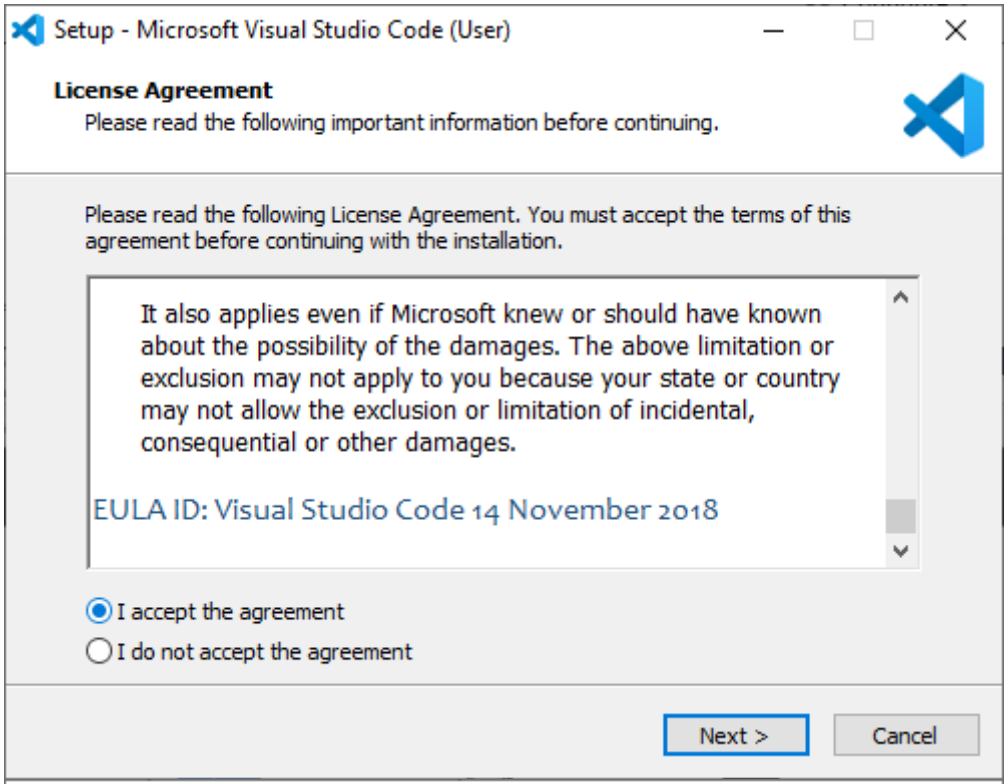
Part 4 System Variable PATH

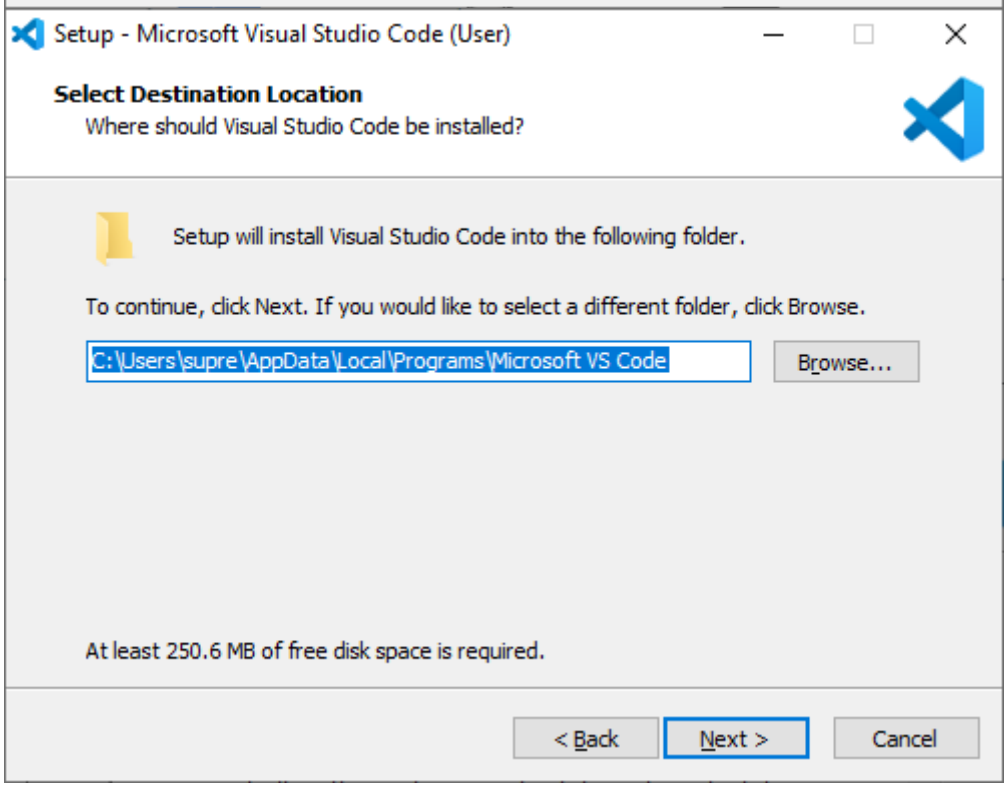


2. Install Visual Studio Code

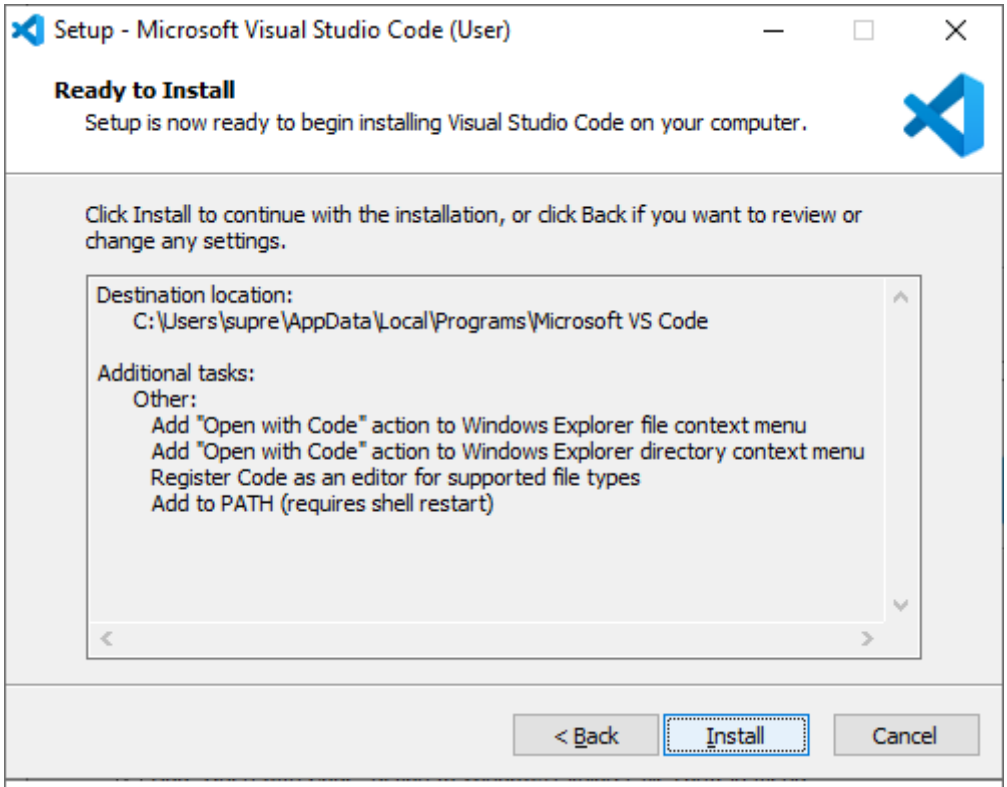
https://code.visualstudio.com/download

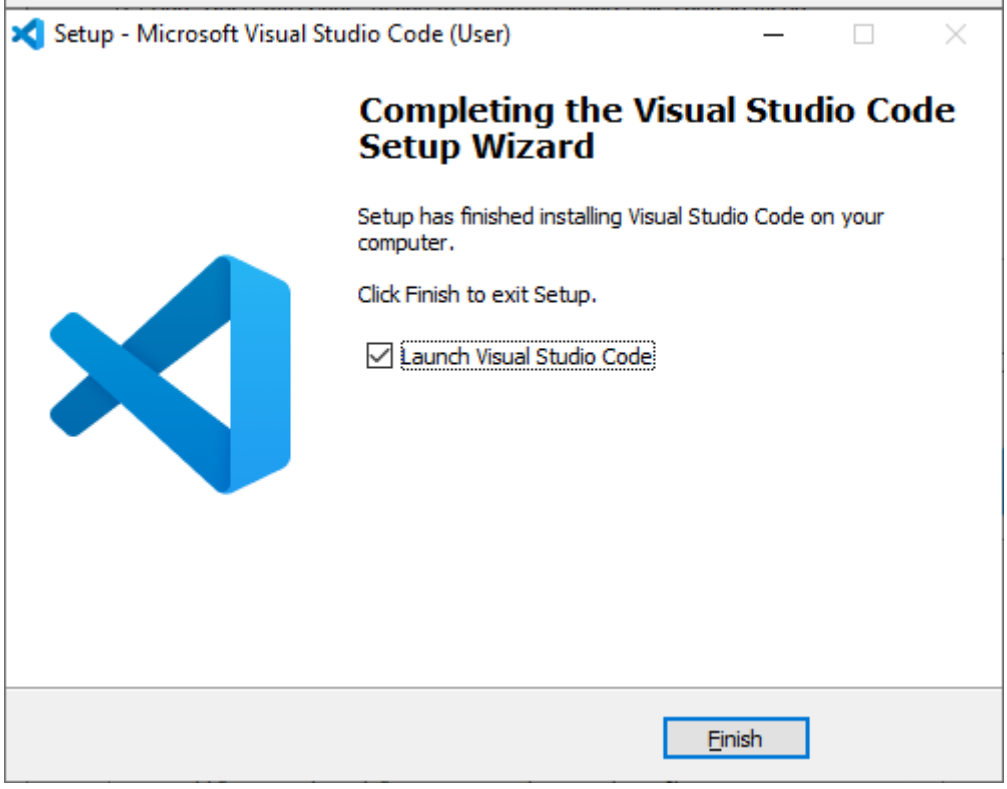


1. 

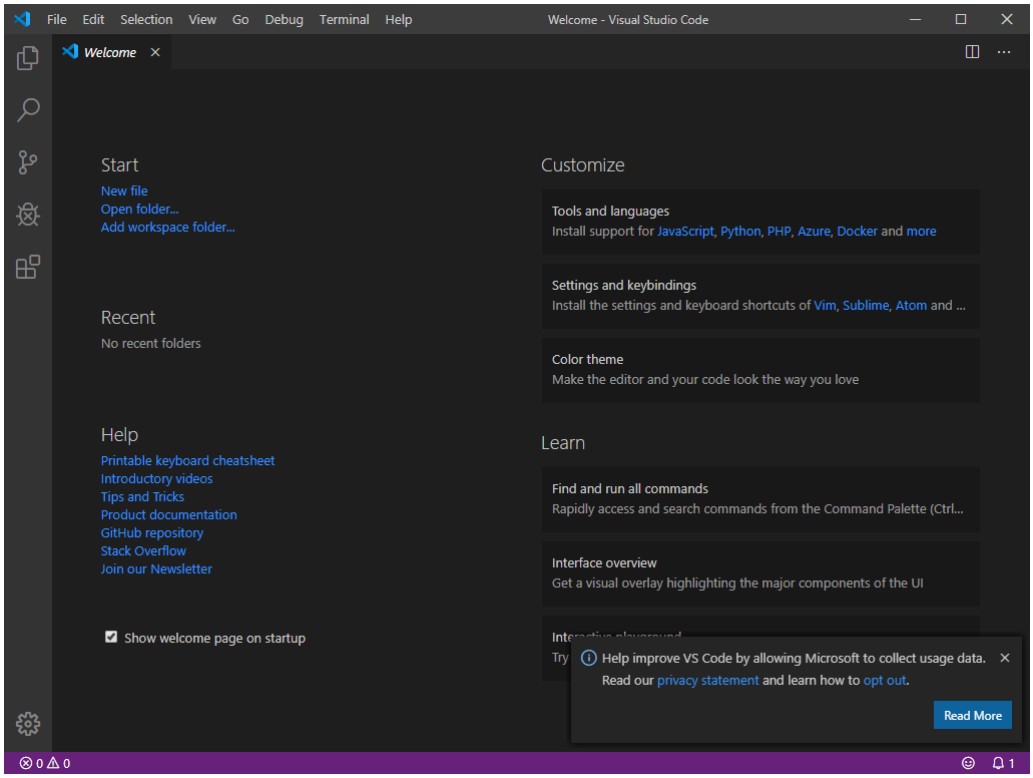
2. 

3. skipped, put the desktop shortcut icon if you want

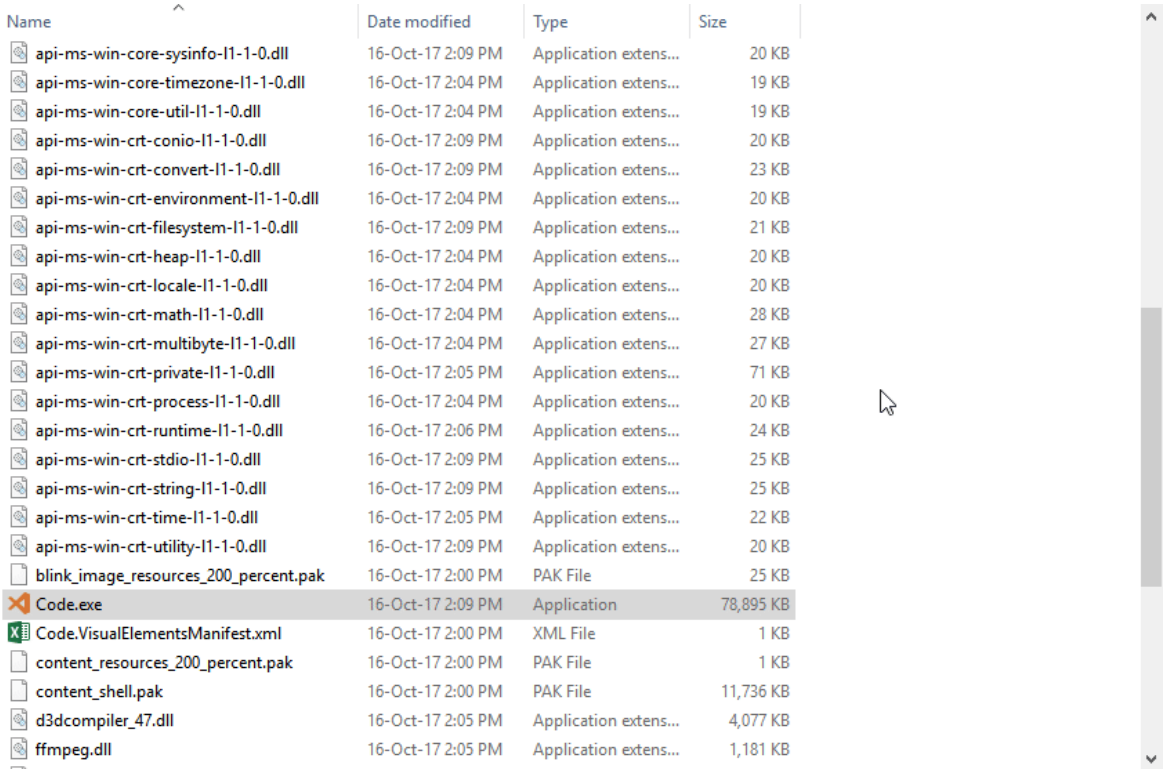
4. 
Setup - Microsoft Visual Studio Code (User)
Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Users\supre\AppData\Local\Programs\Microsoft VS Code
Additional tasks:
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Install
Cancel

5. 
Setup - Microsoft Visual Studio Code (User)
Completing the Visual Studio Code Setup Wizard
Setup has finished installing Visual Studio Code on your computer.
Click Finish to exit Setup.
Launch Visual Studio Code
Finish

Finished



(Optional) "Run as administrator" by default

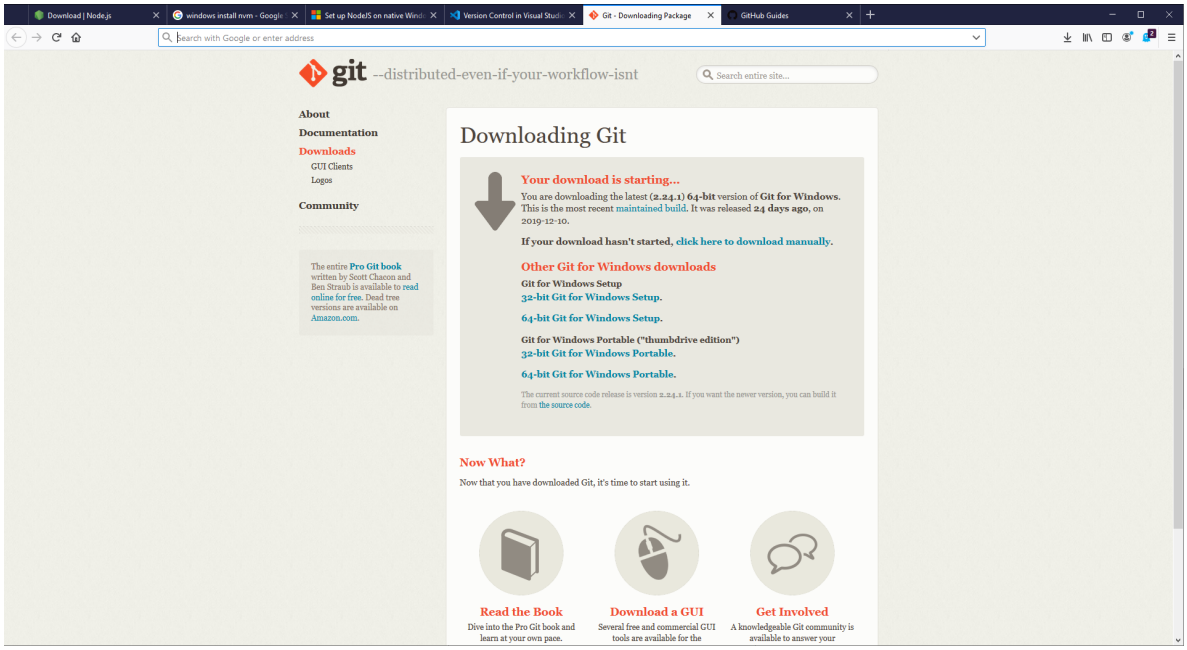


Name	Date modified	Type	Size
api-ms-win-core-sysinfo-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	20 KB
api-ms-win-core-timezone-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	19 KB
api-ms-win-core-util-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	19 KB
api-ms-win-crt-conio-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	20 KB
api-ms-win-crt-convert-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	23 KB
api-ms-win-crt-environment-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	20 KB
api-ms-win-crt-filesystem-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	21 KB
api-ms-win-crt-heap-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	20 KB
api-ms-win-crt-locale-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	20 KB
api-ms-win-crt-math-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	28 KB
api-ms-win-crt-multibyte-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	27 KB
api-ms-win-crt-private-l1-1-0.dll	16-Oct-17 2:05 PM	Application extens...	71 KB
api-ms-win-crt-process-l1-1-0.dll	16-Oct-17 2:04 PM	Application extens...	20 KB
api-ms-win-crt-runtime-l1-1-0.dll	16-Oct-17 2:06 PM	Application extens...	24 KB
api-ms-win-crt-stdio-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	25 KB
api-ms-win-crt-string-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	25 KB
api-ms-win-crt-time-l1-1-0.dll	16-Oct-17 2:05 PM	Application extens...	22 KB
api-ms-win-crt-utility-l1-1-0.dll	16-Oct-17 2:09 PM	Application extens...	20 KB
blink_image_resources_200_percent.pak	16-Oct-17 2:00 PM	PAK File	25 KB
Code.exe	16-Oct-17 2:09 PM	Application	78,895 KB
Code.VisualElementsManifest.xml	16-Oct-17 2:00 PM	XML File	1 KB
content_resources_200_percent.pak	16-Oct-17 2:00 PM	PAK File	1 KB
content_shell.pak	16-Oct-17 2:00 PM	PAK File	11,736 KB
d3dcompiler_47.dll	16-Oct-17 2:05 PM	Application extens...	4,077 KB
ffmpeg.dll	16-Oct-17 2:05 PM	Application extens...	1,181 KB

3. Install git-scm *WINDOWS ONLY*

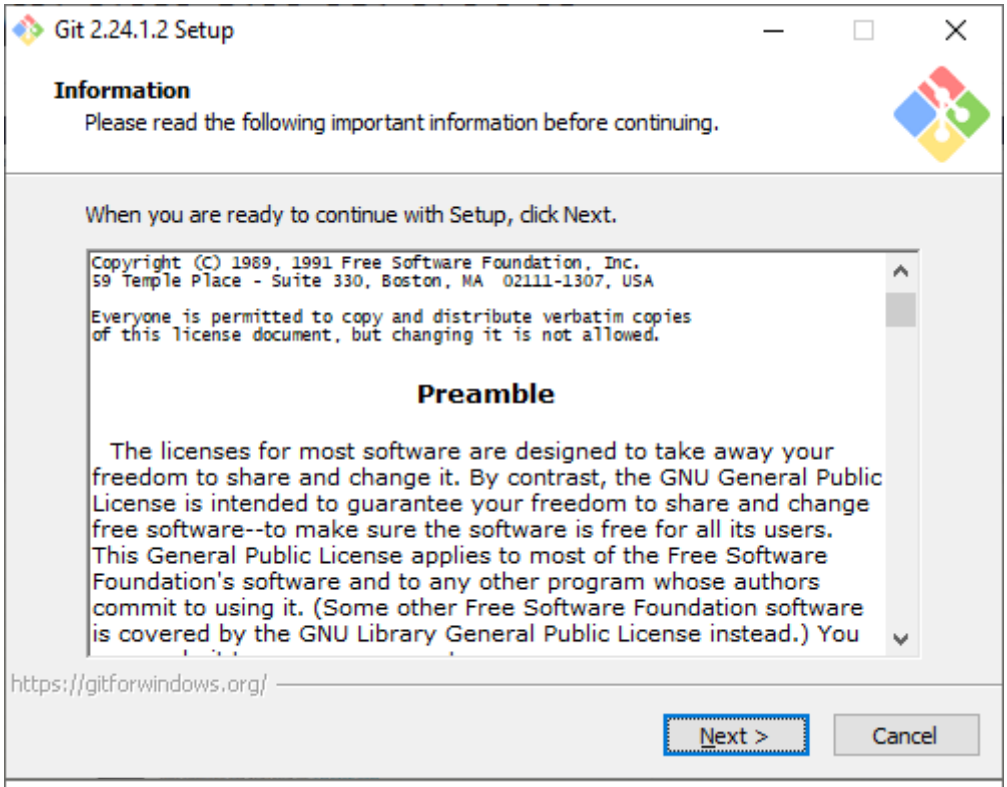
You mostly leave all of the options on the default settings, you can go fast

https://git-scm.com/

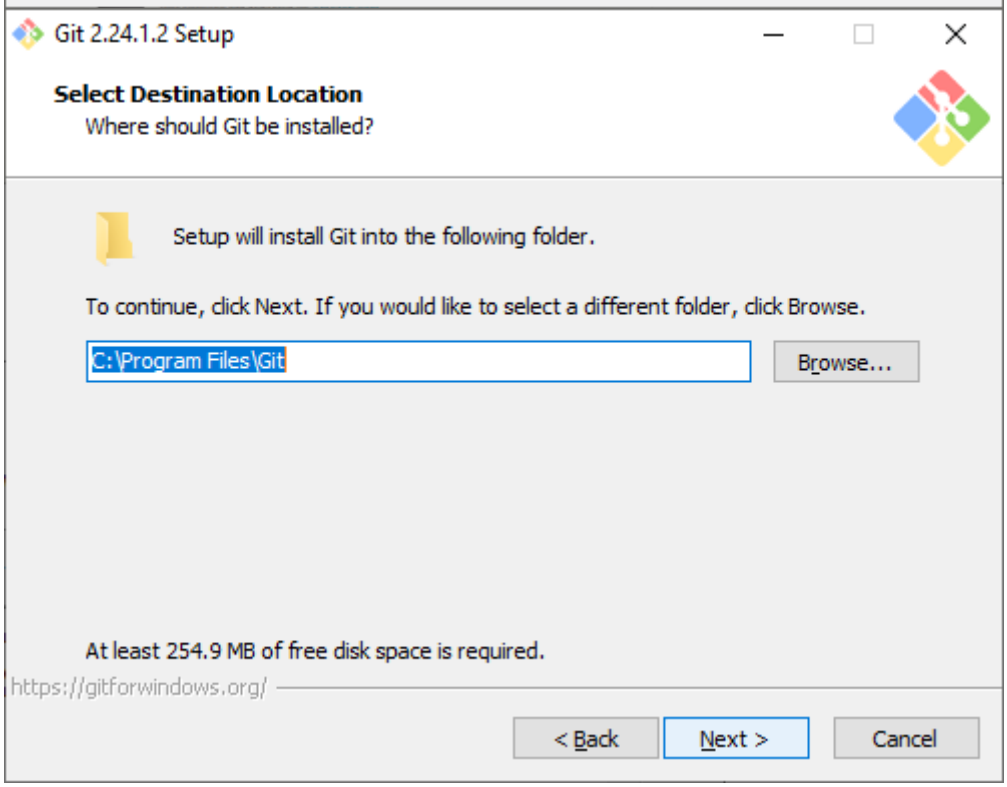


https://git-scm.com/download/win

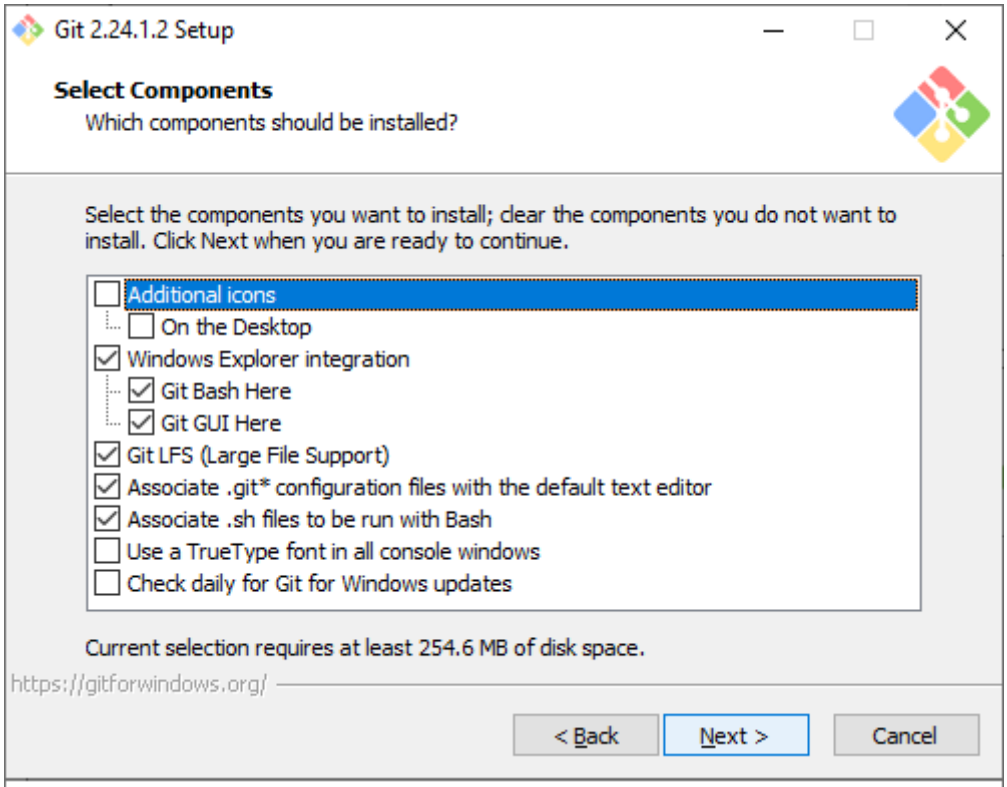
1.


Git 2.24.1.2 Setup
Information
Please read the following important information before continuing.
When you are ready to continue with Setup, click Next.
Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place - Suite 330, Boston, MA 02111-1307, USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.
Preamble
The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You
https://gitforwindows.org/
Next >
Cancel

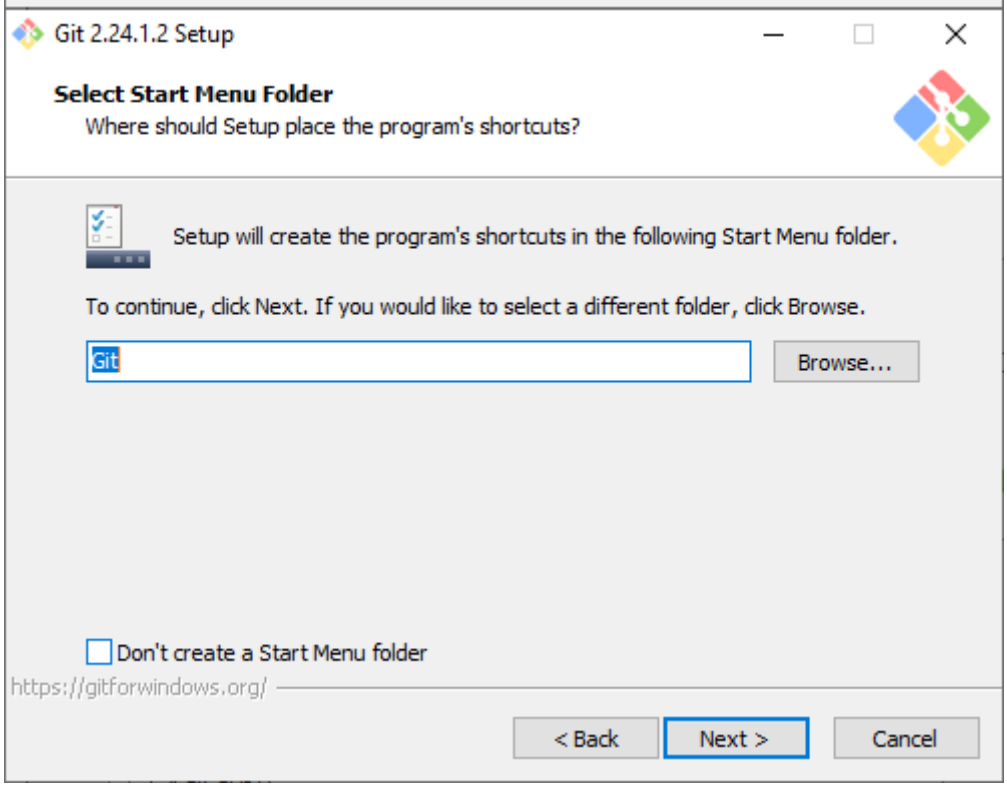
2.


Git 2.24.1.2 Setup
Select Destination Location
Where should Git be installed?
Setup will install Git into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Git
Browse...
At least 254.9 MB of free disk space is required.
https://gitforwindows.org/
< Back
Next >
Cancel

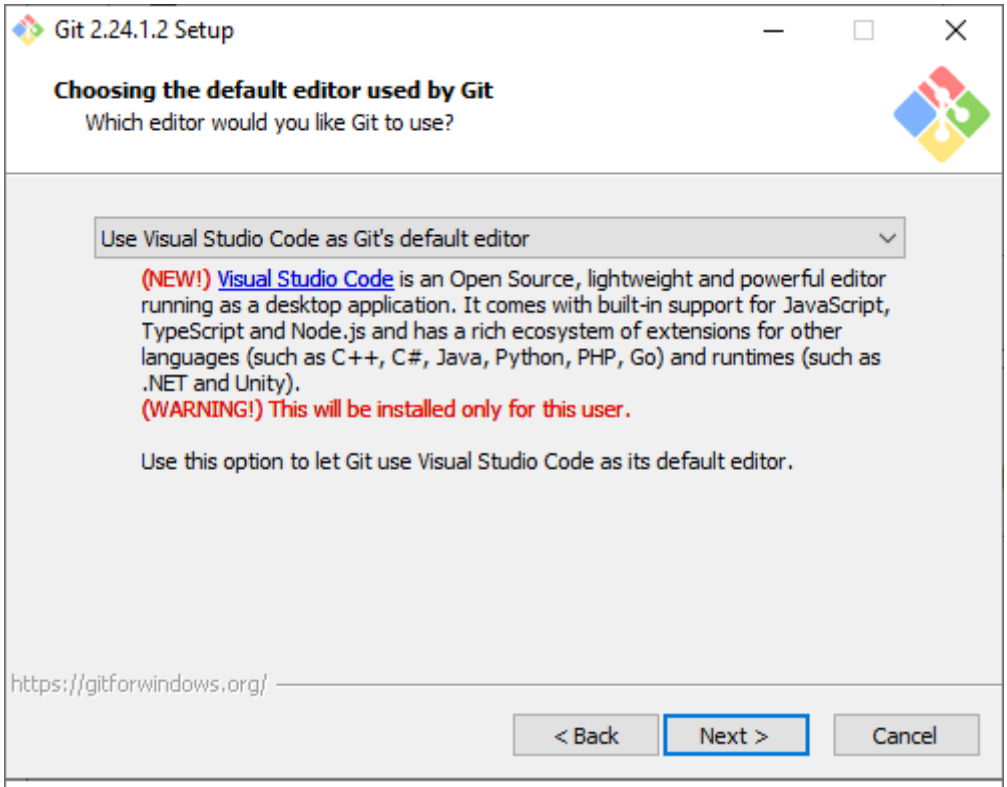
3.


Git 2.24.1.2 Setup
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Additional icons
On the Desktop
Windows Explorer integration
Git Bash Here
Git GUI Here
Git LFS (Large File Support)
Associate .git* configuration files with the default text editor
Associate .sh files to be run with Bash
Use a TrueType font in all console windows
Check daily for Git for Windows updates
Current selection requires at least 254.6 MB of disk space.
https://gitforwindows.org/
< Back
Next >
Cancel

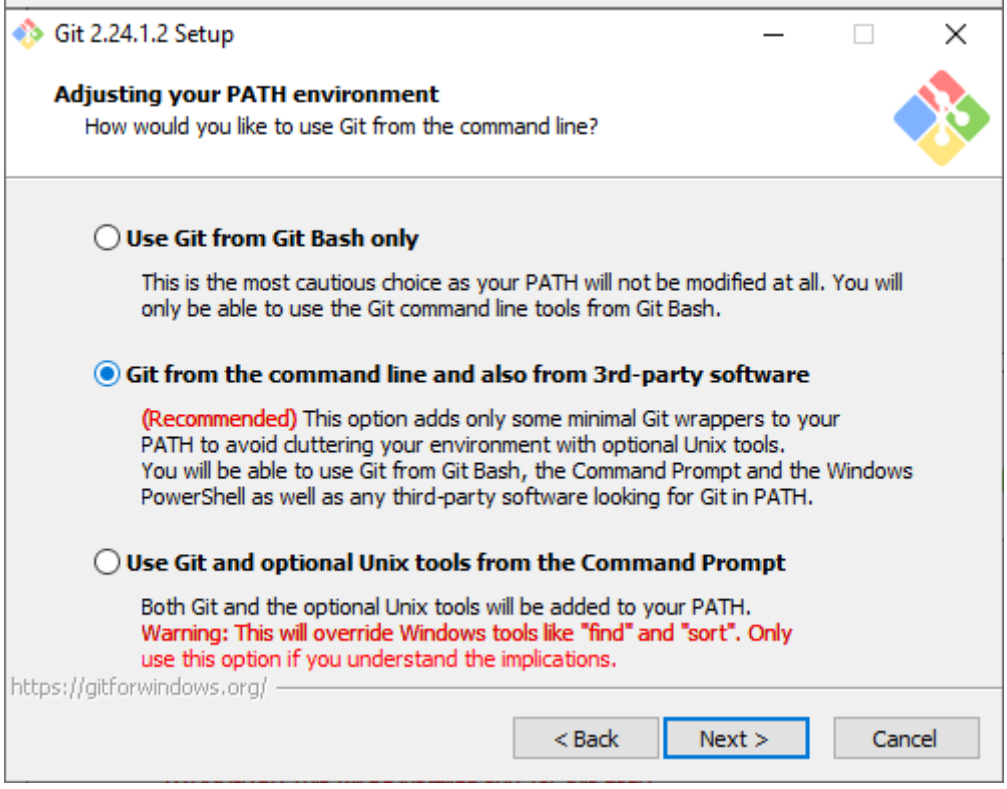
4.


Git 2.24.1.2 Setup
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Git
Browse...
Don't create a Start Menu folder
https://gitforwindows.org/
< Back
Next >
Cancel

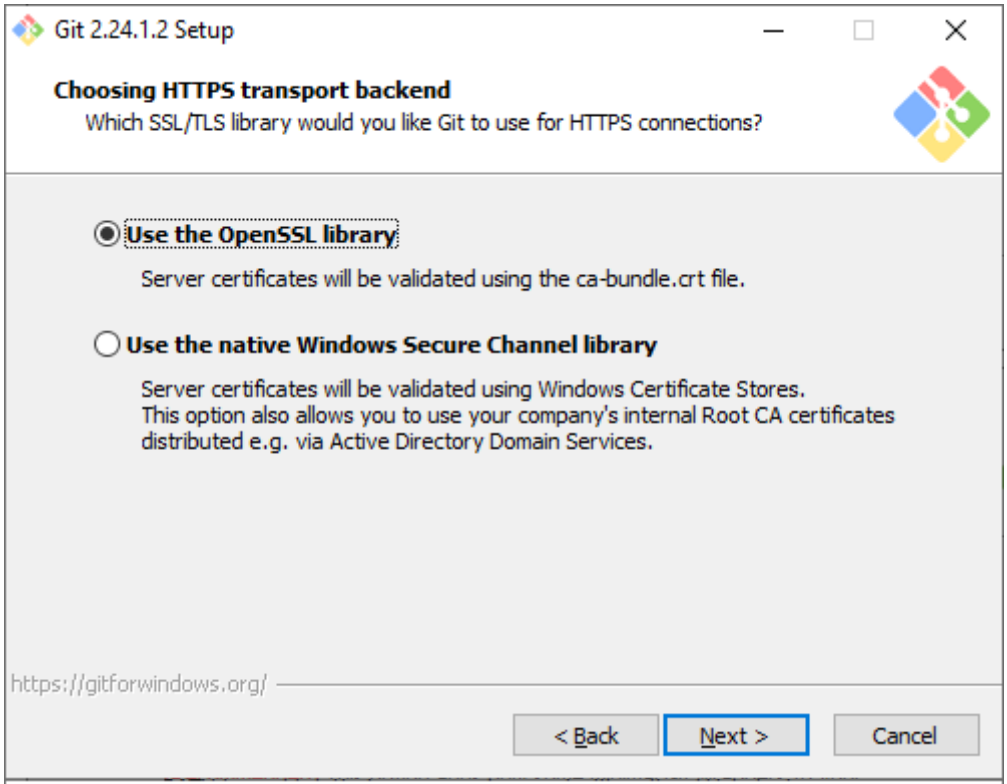
5.


Git 2.24.1.2 Setup
Choosing the default editor used by Git
Which editor would you like Git to use?
Use Visual Studio Code as Git's default editor
(NEW!) Visual Studio Code is an Open Source, lightweight and powerful editor running as a desktop application. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages (such as C++, C#, Java, Python, PHP, Go) and runtimes (such as .NET and Unity).
(WARNING!) This will be installed only for this user.
Use this option to let Git use Visual Studio Code as its default editor.
https://gitforwindows.org/
< Back
Next >
Cancel

6.


Git 2.24.1.2 Setup
Adjusting your PATH environment
How would you like to use Git from the command line?
Use Git from Git Bash only
This is the most cautious choice as your PATH will not be modified at all. You will only be able to use the Git command line tools from Git Bash.
Git from the command line and also from 3rd-party software
(Recommended) This option adds only some minimal Git wrappers to your PATH to avoid cluttering your environment with optional Unix tools.
You will be able to use Git from Git Bash, the Command Prompt and the Windows PowerShell as well as any third-party software looking for Git in PATH.
Use Git and optional Unix tools from the Command Prompt
Both Git and the optional Unix tools will be added to your PATH.
Warning: This will override Windows tools like "find" and "sort". Only use this option if you understand the implications.
https://gitforwindows.org/
< Back
Next >
Cancel

7.


Git 2.24.1.2 Setup
Choosing HTTPS transport backend
Which SSL/TLS library would you like Git to use for HTTPS connections?
Use the OpenSSL library
Server certificates will be validated using the ca-bundle.crt file.
Use the native Windows Secure Channel library
Server certificates will be validated using Windows Certificate Stores.
This option also allows you to use your company's internal Root CA certificates
distributed e.g. via Active Directory Domain Services.
https://gitforwindows.org/
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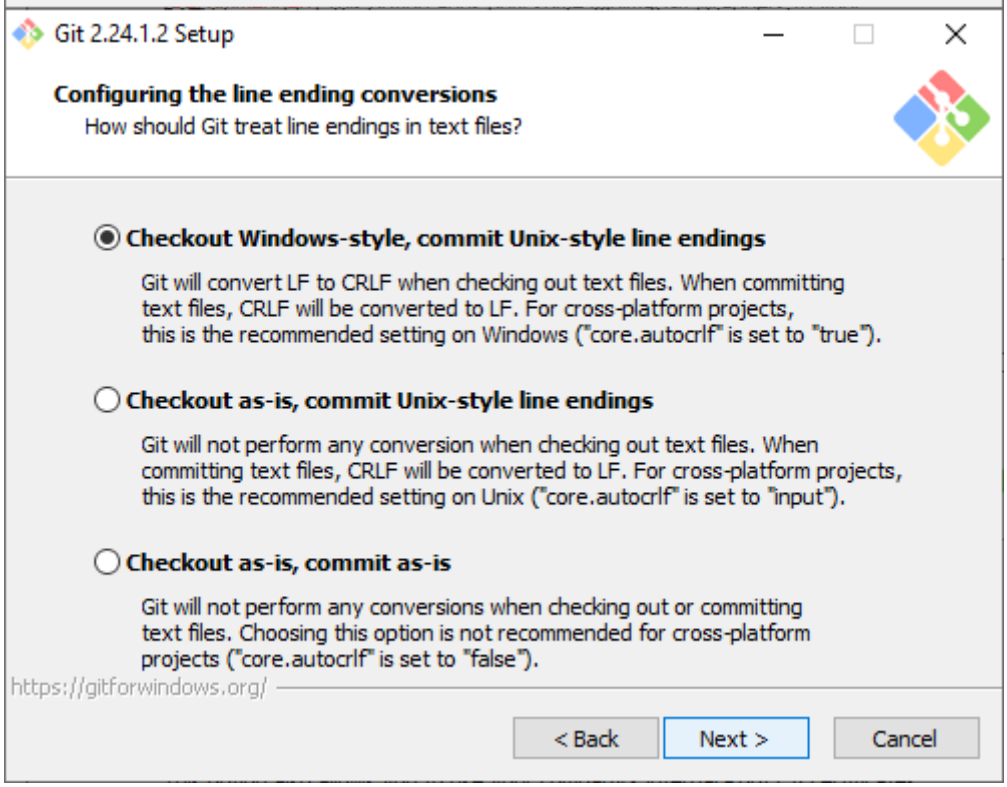
8.


Git 2.24.1.2 Setup
Configuring the line ending conversions
How should Git treat line endings in text files?
Checkout Windows-style, commit Unix-style line endings
Git will convert LF to CRLF when checking out text files. When committing
text files, CRLF will be converted to LF. For cross-platform projects,
this is the recommended setting on Windows ("core.autocrlf" is set to "true").
Checkout as-is, commit Unix-style line endings
Git will not perform any conversion when checking out text files. When
committing text files, CRLF will be converted to LF. For cross-platform projects,
this is the recommended setting on Unix ("core.autocrlf" is set to "input").
Checkout as-is, commit as-is
Git will not perform any conversions when checking out or committing
text files. Choosing this option is not recommended for cross-platform
projects ("core.autocrlf" is set to "false").
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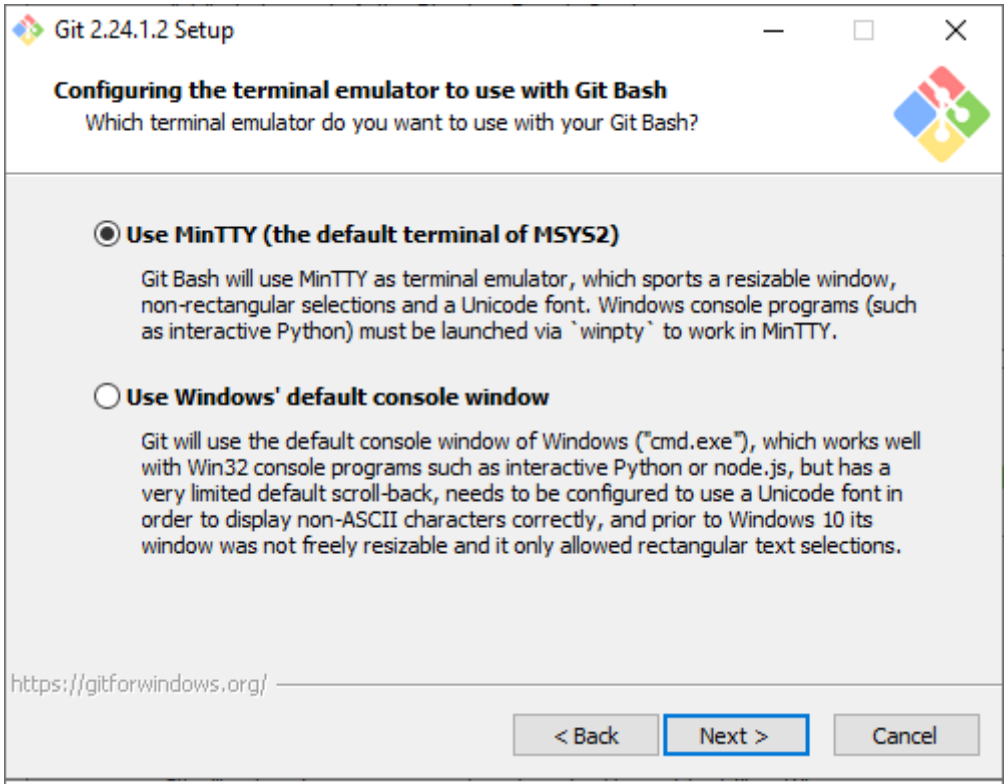
9.


Git 2.24.1.2 Setup
Configuring the terminal emulator to use with Git Bash
Which terminal emulator do you want to use with your Git Bash?
Use MinTTY (the default terminal of MSYS2)
Git Bash will use MinTTY as terminal emulator, which sports a resizable window, non-rectangular selections and a Unicode font. Windows console programs (such as interactive Python) must be launched via `winpty` to work in MinTTY.
Use Windows' default console window
Git will use the default console window of Windows ("cmd.exe"), which works well with Win32 console programs such as interactive Python or node.js, but has a very limited default scroll-back, needs to be configured to use a Unicode font in order to display non-ASCII characters correctly, and prior to Windows 10 its window was not freely resizable and it only allowed rectangular text selections.
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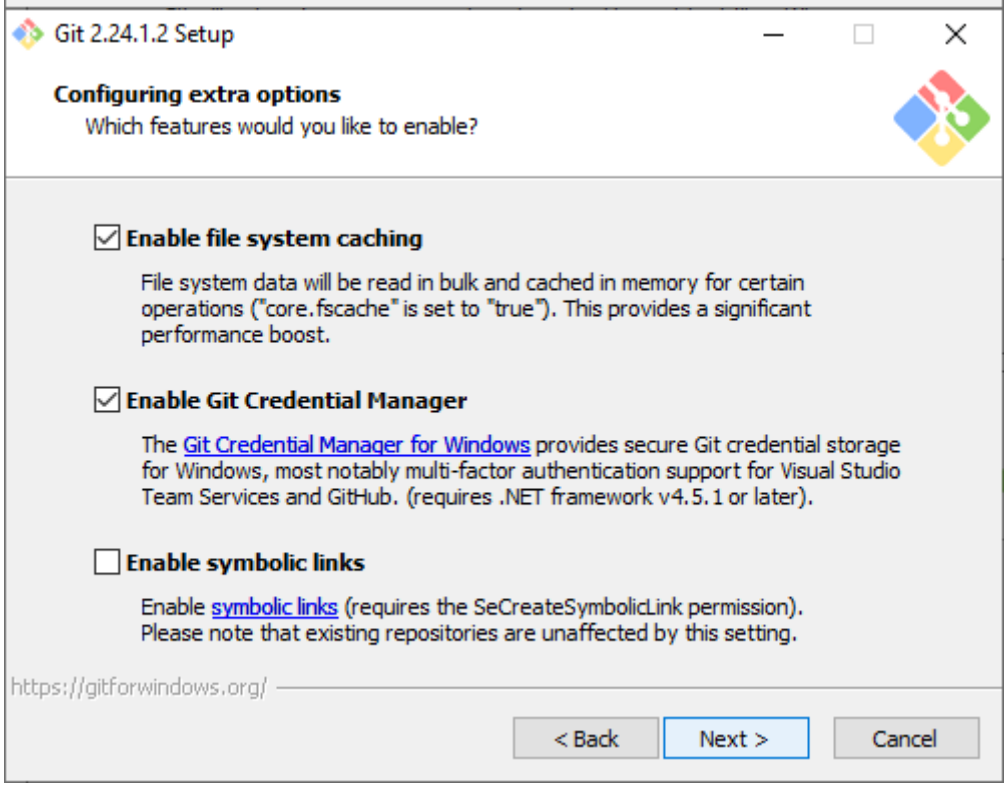
10.


Git 2.24.1.2 Setup
Configuring extra options
Which features would you like to enable?
Enable file system caching
File system data will be read in bulk and cached in memory for certain operations ("core.fscache" is set to "true"). This provides a significant performance boost.
Enable Git Credential Manager
The Git Credential Manager for Windows provides secure Git credential storage for Windows, most notably multi-factor authentication support for Visual Studio Team Services and GitHub. (requires .NET framework v4.5.1 or later).
Enable symbolic links
Enable symbolic links (requires the SeCreateSymbolicLink permission).
Please note that existing repositories are unaffected by this setting.
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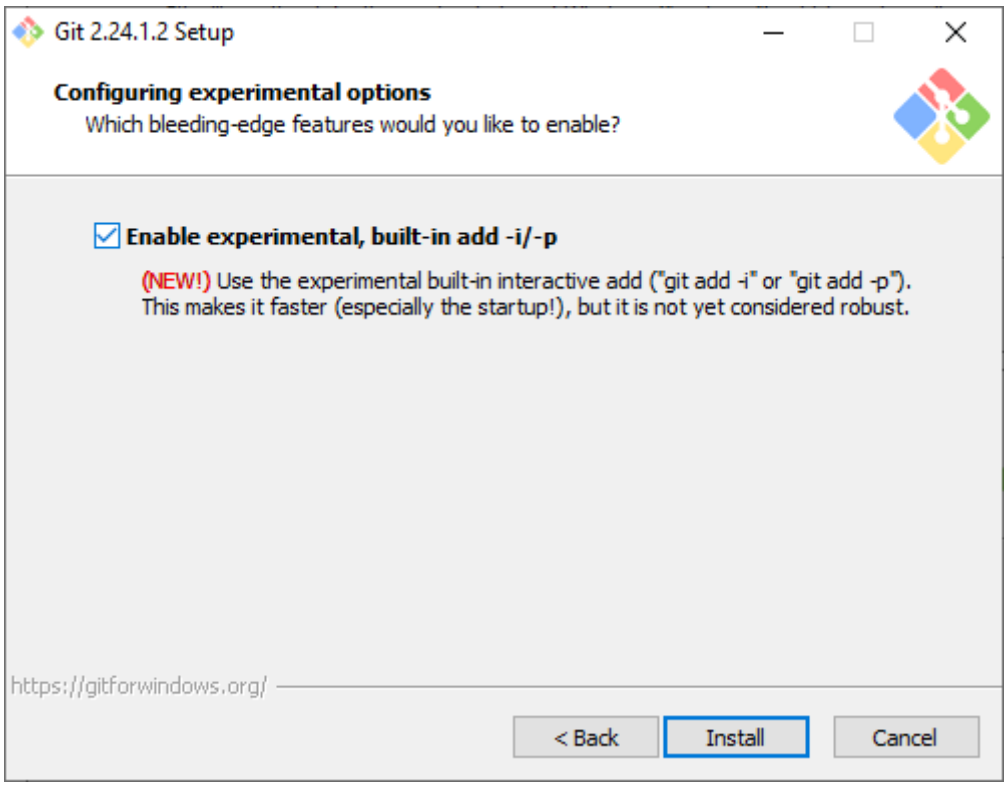
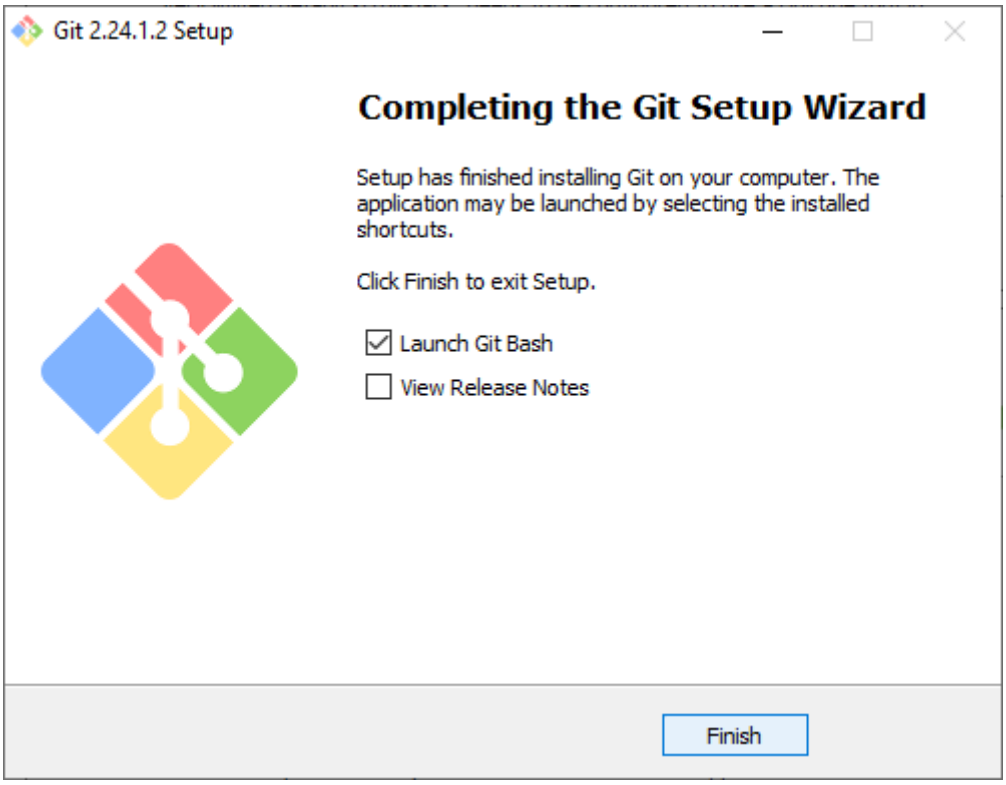
11. 

Finished



4. bash_profile

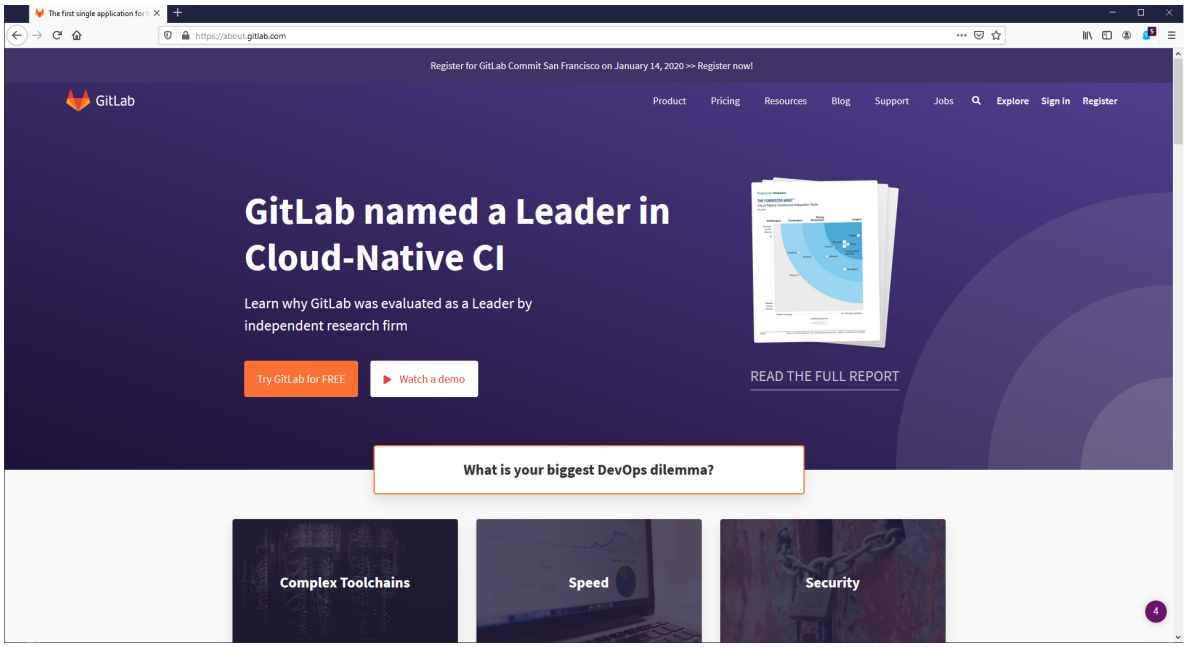
Setting and persisting environment variables in terminal sessions. In `~/.bashrc`, `~/.bash_profile`, or similar shell startup scripts, make the following modifications:

To open in VS Code

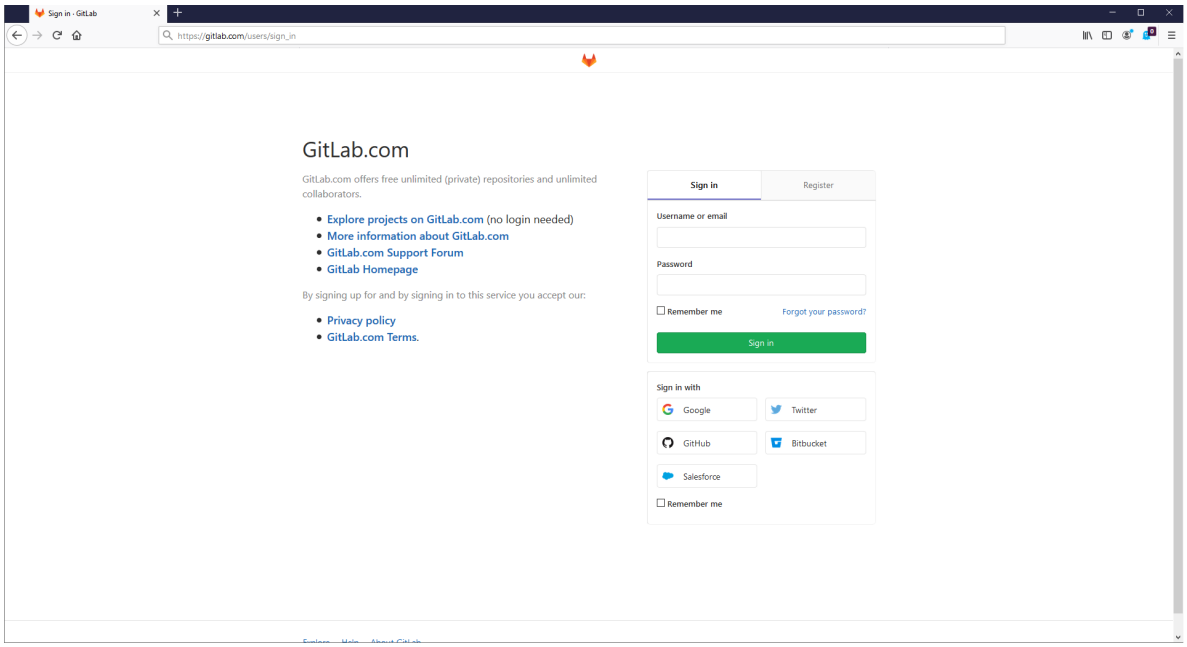
```
code ~/.bash_profile
```

```
export ANDROID_SDK_ROOT=$HOME/Library/Android/sdk

# avdmanager, sdkmanager
export PATH=$PATH:$ANDROID_SDK_ROOT/tools/bin

# adb, logcat
export PATH=$PATH:$ANDROID_SDK_ROOT/platform-tools

export ANDROID_HOME=$HOME/Android/Sdk
export PATH=$PATH:$ANDROID_HOME/emulator
export PATH=$PATH:$ANDROID_HOME/tools
export PATH=$PATH:$ANDROID_HOME/tools/bin
export PATH=$PATH:$ANDROID_HOME/platform-tools
```

5. Register GitLab Account



https://gitlab.com/users/sign_in



Add SSH Key

https://gitlab.com/help/ssh/README#generating-a-new-ssh-key-pair

Clone the Repo

1. `ctrl+j` to open terminal
2. `cd ../..`
3. `mkdir` create a new folder with this command
4. `git clone` download a copy of the source code

6. Install Node Version Manager

https://github.com/coreybutler/nvm-windows/releases

https://docs.microsoft.com/en-us/windows/nodejs/setup-on-windows

1. Open the windows-nvm repository in your internet browser and select the **Download Now** link.
2. Download the **nvm-setup.zip** file for the most recent release.
3. Once downloaded, open the zip file, then open the **nvm-setup.exe** file.
4. The Setup-NVM-for-Windows installation wizard will walk you through the setup steps, including choosing the directory where both nvm-windows and Node.js will be installed.
5. Once the installation is complete. Open PowerShell and try using windows-nvm to list which versions of Node are currently installed (should be none at this point): `nvm ls`
6. Install the latest stable LTS release of Node.js `nvm list available`
7. then installing the LTS version number with: `nvm install` (replacing `` ` with the number, ie: `` nvm install 10.16.3`).

7. Install JDK

`choco install jdk8`

8. Install JavaScript Frameworks

```
npm i -g @angular/cli cordova ionic cordova-res native-run windows-build-tools

npm config set python python2.7
```

9. run the app in browser

`ionic serve --lab`

10. Run Mobile App on device

`ionic cordova platform add android` just the first time to set up the android app then plug your phone to the computer.

`ionic cordova build android`

Check that your phone is connected by running `adb devices`

run `ionic cordova run android --device` to load the app onto the phone