### Step 1: Install and Set Up Foundry

#### 1.1 Install Foundry

Foundry is a next-generation Ethereum development framework. Install it using the following command:

```
MINGW64:/c/Users/prapt/OneDrive/Desktop/Homework 5
bash: cd: c/users/prapt/OneDrive/Desktop/Homework 5"
bash: cd: c/users/prapt/OneDrive/Desktop/Homework 5: No such file or directory
prapt@Quantum MINGW64 ~
$ cd "c/Users/prapt/OneDrive/Desktop/Homework\ 5"
bash: cd: c/Users/prapt/OneDrive/Desktop/Homework\ 5: No such file or directory
 rapt@Quantum MINGW64
  cd /c/Users/prapt/OneDrive/Desktop/Homework\ 5
  rapt@Quantum MINGW64 ~/OneDrive/Desktop/Ho
               % Received % Xferd Average Speed Time
Dload Upload Total
00 167 0 0 597 0 --:---
                                                                             Time Current
Left Speed
                                                                   Spent
100 167 100 167
100 2196 100 2196
stalling foundryup...
                                   0 597
0 3068
                                                                  --:--:- 3068In
Detected your preferred shell is bash and added foundryup to PATH.
Run 'source /c/Users/prapt/.bashrc' or start a new terminal session to use found
ryup.
Then, simply run 'foundryup' to install Foundry.
  rapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5 source /c/Users/prapt/.bashrc
  rapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5
 Portable and modular toolkit
for Ethereum Application Development
written in Rust.
 Repo : https://github.com/foundry-rs/foundry
Book : https://book.getfoundry.sh/
Chat : https://t.me/foundry_rs/
Support : https://t.me/foundry_support/
Contribute : https://github.com/foundry-rs/foundry/blob/master/CONTRIBUTING.md
Repo
 rapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5
```

To verify installation, run:

```
prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5
$ forge --version
forge Version: 1.0.0-stable
Commit SHA: e144b82070619b6e10485c38734b4d4d45aebe04
Build Timestamp: 2025-02-13T20:02:16.393821500Z (1739476936)
Build Profile: maxperf

prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5
$ |
```

# Step 2: Initialize the Foundry Project

```
prapt@quantum MINGw64 ~/OneDrive/Desktop/Homework 5
$ cd /c/Users/prapt/oneDrive/Desktop/Homework 5/Uniswapv2-Foundry
rapt@quantum MINGw64 ~/OneDrive/Desktop/Homework 5/Uniswapv2-Foundry
foreini
initializing c:\Users/prapt\oneDrive\Desktop/Homework 5/Uniswapv2-Foundry...
Installing forge-std in c:\Users/prapt\oneDrive\Desktop/Homework 5/Uniswapv2-Foundry\lib\forge-std (url: Some("https://github.com/foundry-rs/forge-std"), tag: None)
Cloning into 'c:\Users/prapt\oneDrive\Desktop/Homework 5/Uniswapv2-Foundry\lib\forge-std (url: Some("https://github.com/foundry-rs/forge-std"), tag: None)
Cloning into 'c:\Users/prapt\oneDrive\Desktop/Homework 5/Uniswapv2-Foundry\lib\forge-std'...
remote: Enumerating objects: 100% (011/1011), done
remote: compressing objects: 100% (012/91/29), done.
remote: compressing objects: 100% (229/129), done.
remote: total 2080 (delta 933), reused 891 (delta 882), pack-reused 1069 (from 1)
Receiving objects: 100% (2080/2080), 651.12 kiB | 812.00 kiB/s, done.
Resolving deltas: 100% (2409/1409), done.
warning: in the working copy of '.gitmodules', LF will be replaced by CRLF the next time Git touches it
Installized forge-std v1.9.6

Initialized forge-std v1.9.6
```

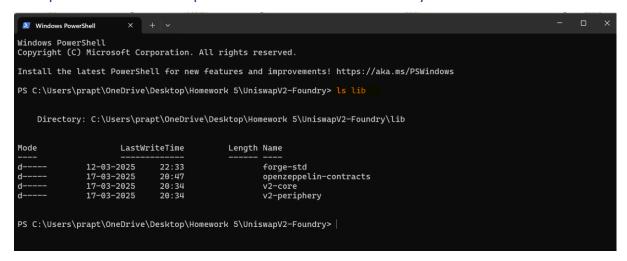
# Step 3: Clone & Organize Uniswap V2 Code

```
prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5/UniswapV2-Foundry (master)
$ git clone https://github.com/Uniswap/v2-core.git
cloning into 'v2-core'...
remote: Enumerating objects: 1674, done.
remote: Total 1674 (delta 0), reused 0 (delta 0), pack-reused 1674 (from 1)
Receiving objects: 100% (1674/1674), 949.20 KiB | 2.57 MiB/s, done.
Resolving deltas: 100% (1067/1067), done.

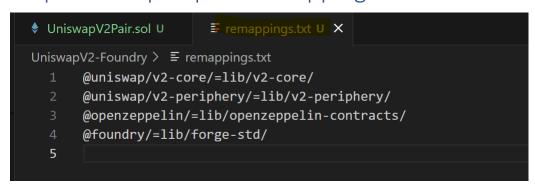
prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5/Uniswapv2-Foundry (master)
$ git clone https://github.com/Uniswap/v2-periphery.git
cloning into 'v2-periphery'...
remote: Enumerating objects: 1094, done.
remote: Counting objects: 100% (427/427), done.
remote: Counting objects: 100% (53/53), done.
remote: Total 1094 (delta 382), reused 374 (delta 374), pack-reused 667 (from 1)
Receiving objects: 100% (728/728), done.

Prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5/Uniswapv2-Foundry (master)
$ |
```

# Step 4: Install Dependencies and Verify



## Step 5: Set Up Import Remappings



#### Verify Remappings.txt

```
prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5
$ cd "C:\Users\prapt\oneDrive\Desktop\Homework 5\UniswapV2-Foundry"

prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5/UniswapV2-Foundry (master)
$ forge remappings
@uniswap/v2-core/=lib/v2-core/
@uniswap/v2-periphery/=lib/v2-periphery/
@openzeppelin/=lib/openzeppelin-contracts/
@foundry/=lib/forge-std/
forge-std/=lib/forge-std/src/
openzeppelin-contracts/=lib/openzeppelin-contracts/
v2-core/=lib/v2-core/contracts/
v2-periphery/=lib/v2-periphery/contracts/
prapt@Quantum MINGW64 ~/OneDrive/Desktop/Homework 5/UniswapV2-Foundry (master)
$ |
```