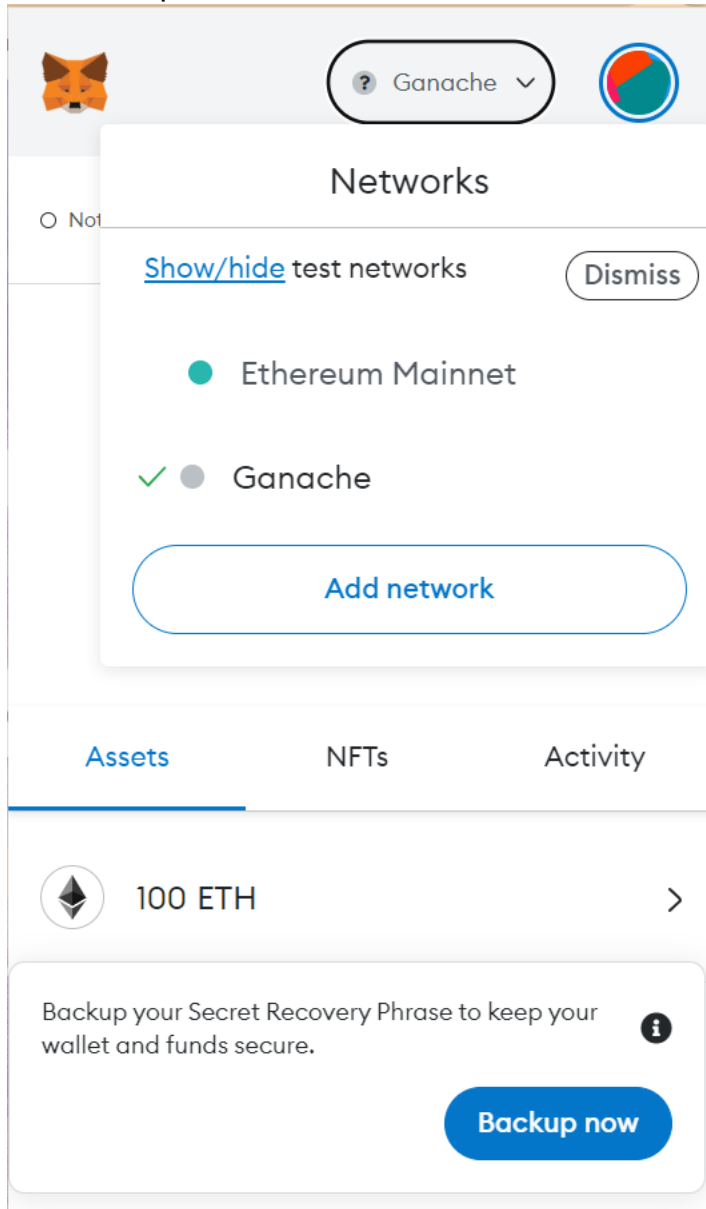


Download the metamask wallet: <https://metamask.io/download/>.

1. Connecting MetaMask wallet with Goerli Testnet (Alchemy).  
STEP 1: Open MetaMask wallet and select network options.



STEP 2: Click on show/hide test networks or click on Add network. From settings, go to Advance and enable option named show test networks.

# Settings

 Search in Settings



 General

 Advanced

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 Security & privacy

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 Networks

 Experimental

 About

## Advanced

### State logs

State logs contain your public account addresses and sent transactions.

[Download state logs](#)

### Sync with mobile

[Sync with mobile](#)

**Show conversion on test networks**

Select this to show fiat conversion on test networks



OFF

**Show test networks**

Select this to show test networks in network list



ON

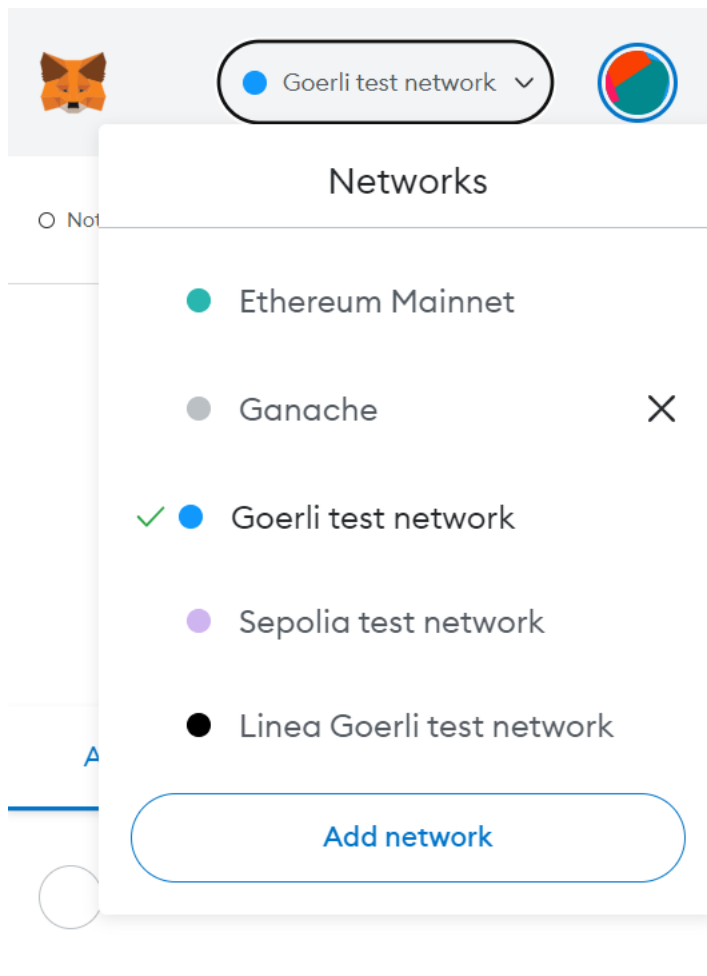
**Customize transaction nonce**

Turn this on to change the nonce (transaction number) on confirmation screens. This is an advanced feature, use cautiously.



OFF

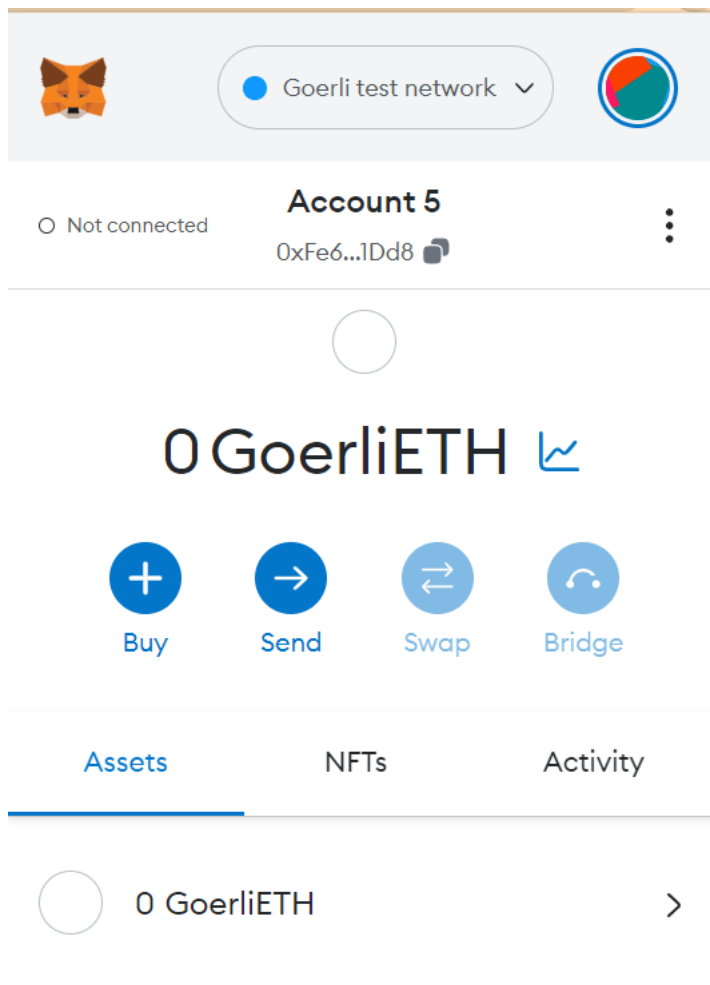
STEP 3: Now again click on MetaMask wallet, and from network options, select Goerli test Network.



Don't see your token?

[Import tokens](#)

Need help? Contact [MetaMask support](#)



**ACCOUNT 1 PRIVATE KEY:**

deeb7ca7927a05a8c725dc862f331489aediae3303278a731b02567a64e863dd6

**ACCOUNT 2 PRIVATE KEY:**

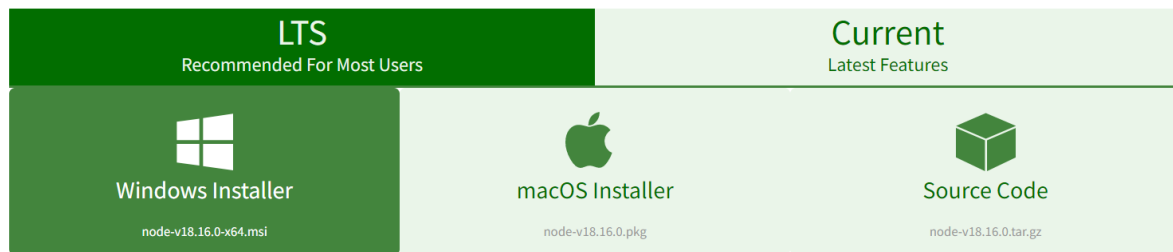
c6e4eb62d04a914e615277d1b7ee77f4b771d8e730b751cfcbd1433e1cd97a1a

**ACCOUNT 3 PRIVATE KEY:**

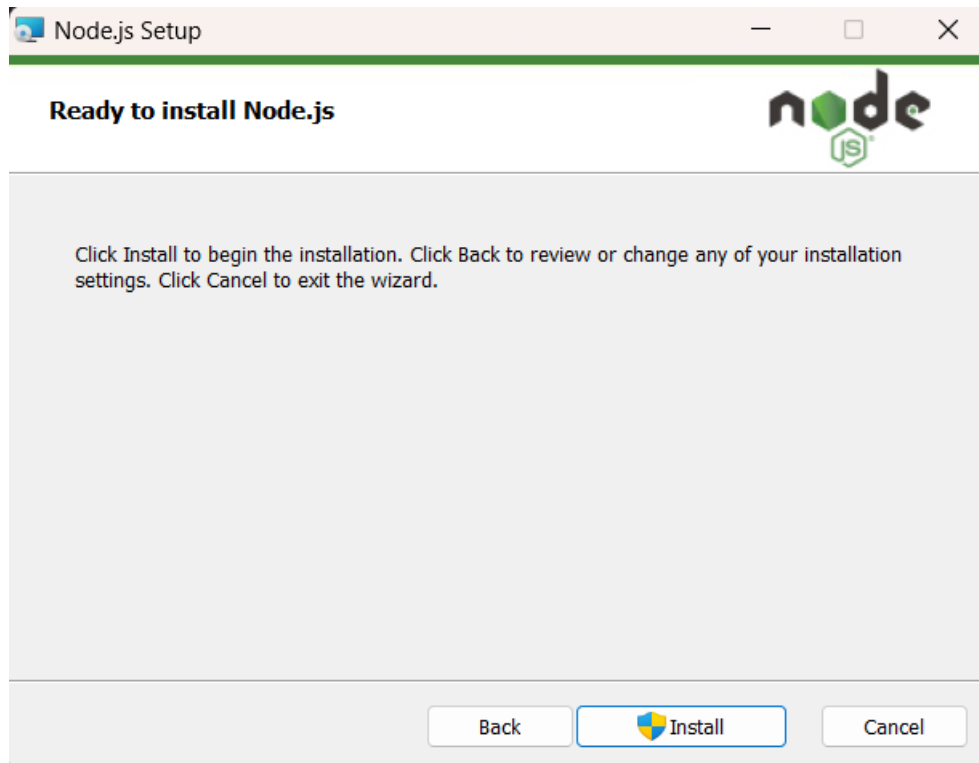
eabc45b1392d4209e5b1fa31308bf2cd974260ddffc503c9ff4f5231a4b4eeae

## DOWNLOAD NODE JS

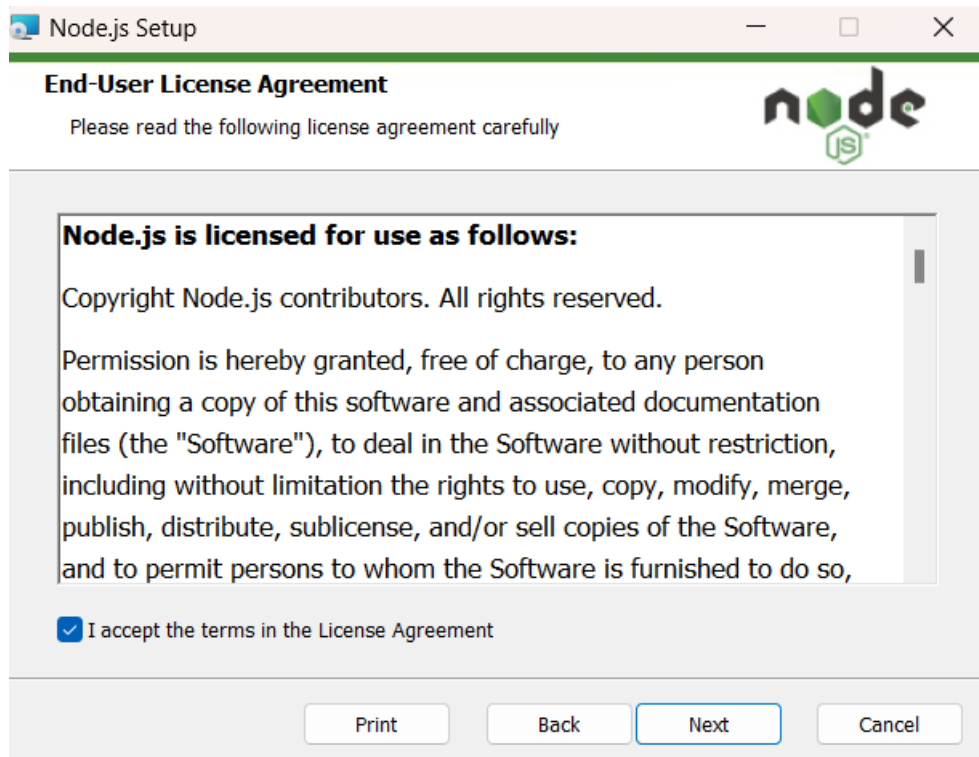
1. download the node.js for your Operating System: <https://nodejs.org/en/download>.



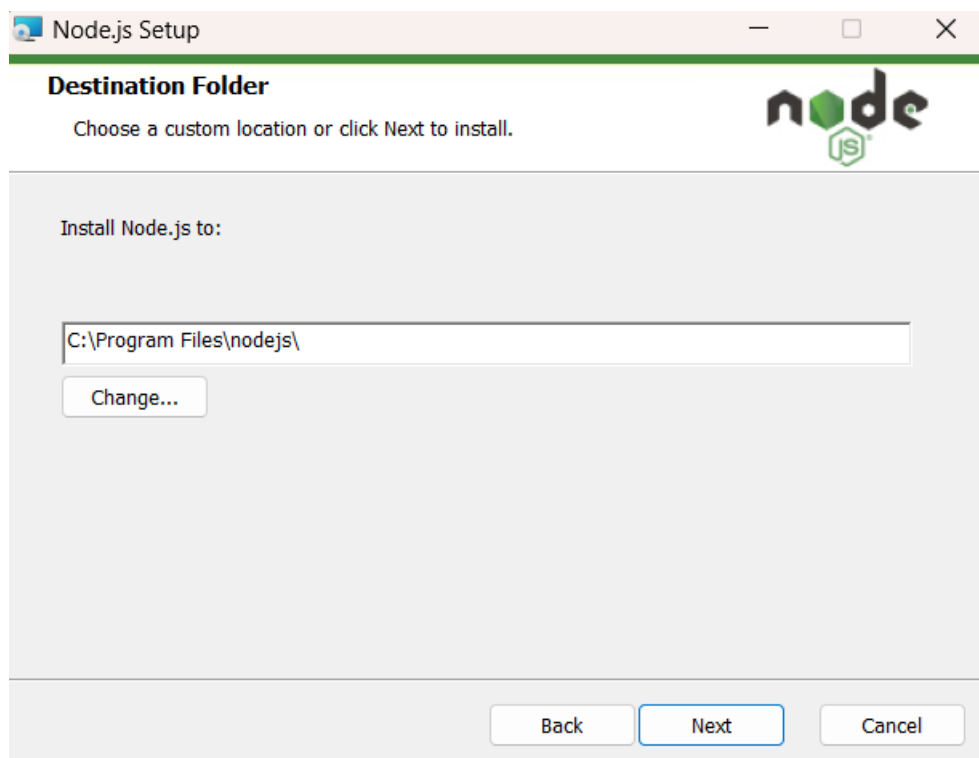
Step 1: Run the nodejs msi and click on install.



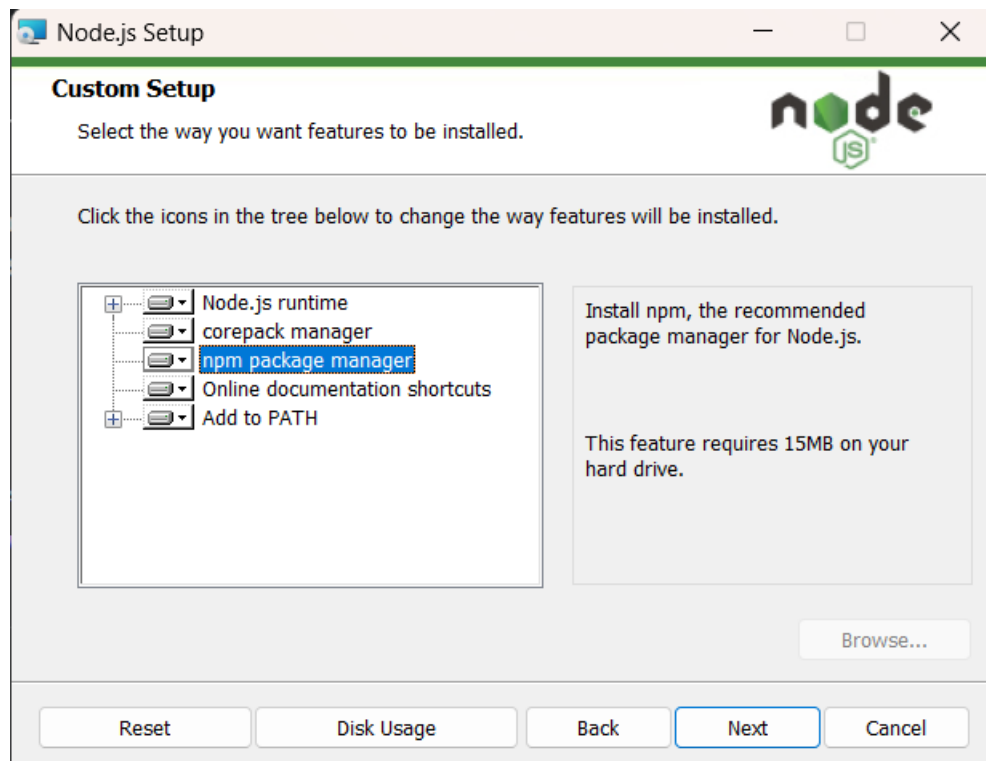
Step 2: Licensee agreement will appear. Check on the box and click next



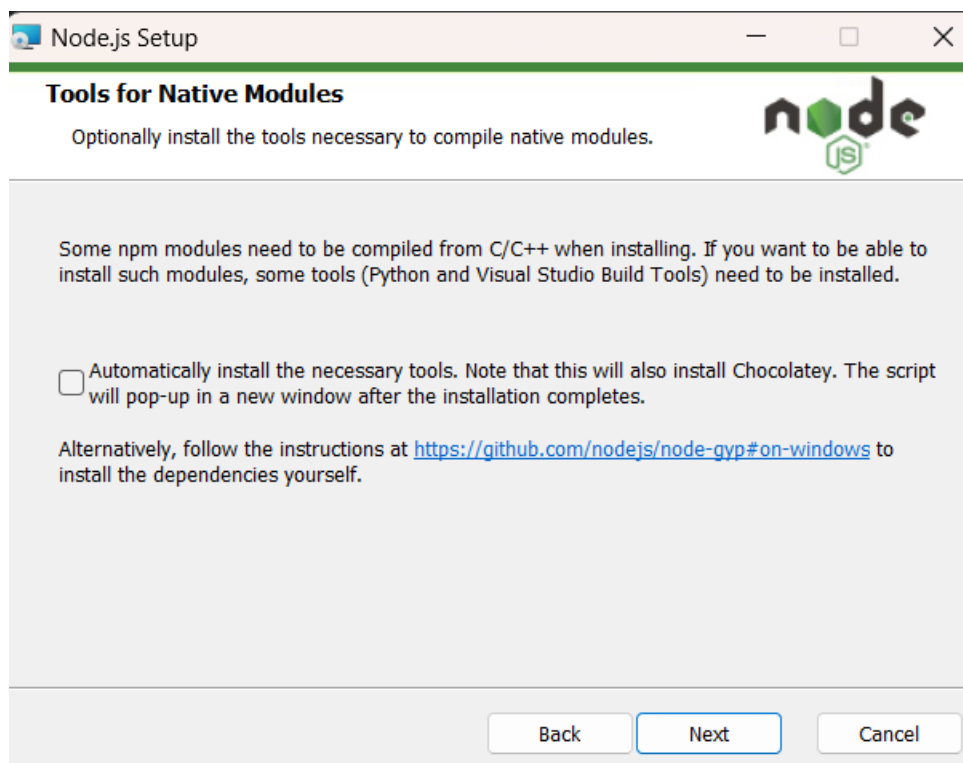
Step 3: Browse the location of the file that you want to save in and click next



Step 4: Select npm as the option and click next.



Step 5: You can either click on the box below for additional tools or not. Then click next which will begin the installation.





The installation is completed.

## Deploying Smart Contract

- `npm init --yes`

```
PS F:\Islington College\FYP\New folder\smartContract> npm init --yes
Wrote to F:\Islington College\FYP\New folder\smartContract\package.json:

{
  "name": "smartcontract",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

- `npm install --save-dev hardhat`

```
PS F:\Islington College\FYP\New folder\smartContract> npm install --save-dev hardhat
added 321 packages, and audited 322 packages in 38s

75 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS F:\Islington College\FYP\New folder\smartContract> |
```

- `npx hardhat` then choose to create an empty project.

```

found 0 vulnerabilities
PS F:\Islington College\FYP\New folder\smartContract> npx hardhat
888      888      888 888      888
888      888      888 888      888
888      888      888 888      888
88888888888 8888b. 888d888 .d888888 888888b. 8888b. 888888
888      888      "88b 888P" d88" 888 888 "88b      "88b 888
888      888 .d888888 888      888 888 888 888 .d888888 888
888      888 888 888 888      Y88b 888 888 888 888 Y88b.
888      888 "Y888888 888      "Y88888 888 888 "Y888888 "Y888

Welcome to Hardhat v2.14.0

✓ What do you want to do? · Create an empty hardhat.config.js
Config file created

Give Hardhat a star on Github if you're enjoying it!

https://github.com/NomicFoundation/hardhat
PS F:\Islington College\FYP\New folder\smartContract> |

```

- Npm install dotenv --save

```

PS F:\Islington College\FYP\New folder\smartContract> npm install dotenv --save

added 1 package, and audited 323 packages in 1s

75 packages are looking for funding
  run `npm fund` for details

```

- npm install --save-dev @nomiclabs/hardhat-ethers  
[ethers@^5.0.0](#)

```

PS F:\Islington College\FYP\New folder\smartContract> npm install --save-dev @nomiclabs
/hardhat-ethers "ethers@^5.0.0"

added 3 packages, changed 1 package, and audited 326 packages in 8s

75 packages are looking for funding
  run `npm fund` for details

```

- Copy the config.txt file to hardhat.config.js file

```

/** @type import('hardhat/config').HardhatUserConfig */

require('dotenv').config();
require("@nomiclabs/hardhat-ethers");
const {API_URL, PRIVATE_KEY} = process.env;

module.exports = {
  solidity: "0.8.17",
  defaultNetwork: "goerli",
  networks: {
    hardhat: {},
    goerli: {
      url: API_URL,
      accounts: [`0x${PRIVATE_KEY}`]
    }
  }
};

```

- npx hardhat compile

```

PS F:\Islington College\FYP\New folder\smartContract> npx hardhat compile
Compiled 1 Solidity file successfully
PS F:\Islington College\FYP\New folder\smartContract> |

```

- npx hardhat run scripts/deploy.js

```

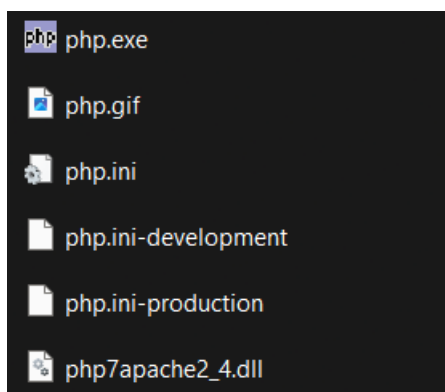
PS F:\Islington College\FYP\New folder\smartContract> npx hardhat run scripts/deploy.js
0x764305A1d7c516CdF179B20f2F55AdBf73343648
PS F:\Islington College\FYP\New folder\smartContract> |

```

## XAMPP Configuration

Step 1: Open XAMPP installation directory

Step 2: Go to xampp\php directory and open php.ini file






Step 3: Find [mail function] by clicking on ctrl +f

```
[mail function]
; For Win32 only.
; http://php.net/smtp
SMTP=localhost
; http://php.net/smtp-port
smtp_port=25
```

Step 4: Search and pass the following.

```
[mail function]
SMTP=smtp.gmail.com
smtp_port=587
sendmail_from = YourGmailId@gmail.com
sendmail_path = "\"C:\xampp\sendmail
\sendmail.exe\" -t"
```

Step 5: Go to \xampp\sendmail and open sendmail.ini file

 sendmail.exe	4/16/2012 11:15 PM	Application	911 KB
 sendmail.ini	4/16/2012 11:15 PM	Configuration setti...	3 KB
 ssleay32.dll	4/16/2012 11:15 PM	Application extens...	270 KB

Step 6: Find [sendmail] by pressing ctrl+f

```
[sendmail]

; you must change mail.mydomain.com to your
smtp server,
; or to IIS's "pickup" directory. (generally
C:\Inetpub\mailroot\Pickup)
; emails delivered via IIS's pickup directory
cause sendmail to
; run quicker, but you won't get error messages
back to the calling
; application.
```

Step 7: Search and pass the following value.

```
[sendmail]
```

```
smtp_server=smtp.gmail.com  
smtp_port=587  
error_logfile=error.log  
debug_logfile=debug.log  
auth_username=financerjack@gmail.com  
auth_password=ydfafuwgkfnffjbk
```