

# Using Visual Studio Code with SSH to Connect to a Remote Server

## Prerequisites

1. **Visual Studio Code:** Installed on your local machine.
2. **Remote - SSH Extension:** Installed in Visual Studio Code.
3. **SSH Access:** Ensure you have SSH access to the remote server.

## Step 1: Set Up SSH Configuration

### On Windows

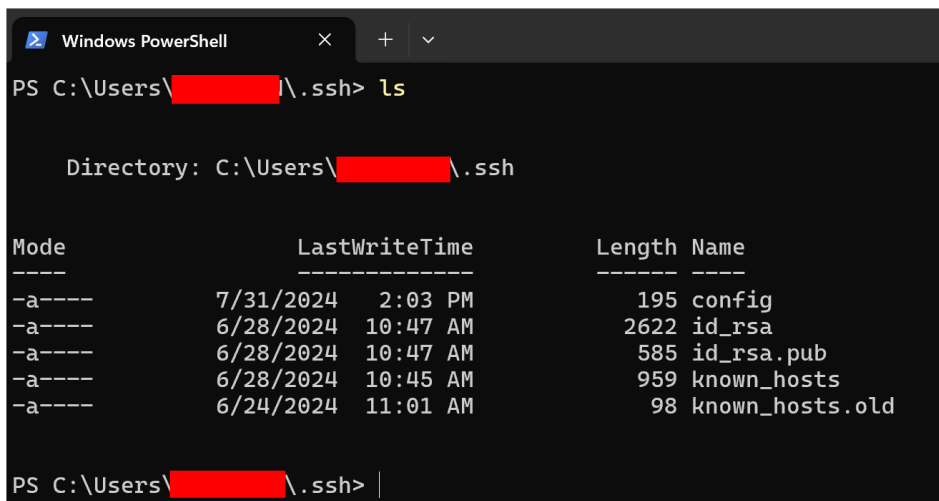
1. **Open Command Prompt or PowerShell:**
  - Press Win + R, type cmd or powershell, and press Enter.

2. **Navigate to the .ssh Directory:**

- In the terminal, type the following command:  
`cd %userprofile%\ssh`

- If the .ssh directory does not exist, create it:

```
mkdir %userprofile%\ssh  
cd %userprofile%\ssh
```



The screenshot shows a Windows PowerShell window with the title bar 'Windows PowerShell'. The prompt is 'PS C:\Users\ [redacted] \.ssh>' and the command 'ls' has been entered. The output shows the directory 'C:\Users\ [redacted] \.ssh' and a table of files:

Mode	LastWriteTime	Length	Name
-a----	7/31/2024 2:03 PM	195	config
-a----	6/28/2024 10:47 AM	2622	id_rsa
-a----	6/28/2024 10:47 AM	585	id_rsa.pub
-a----	6/28/2024 10:45 AM	959	known_hosts
-a----	6/24/2024 11:01 AM	98	known_hosts.old

The prompt is now 'PS C:\Users\ [redacted] \.ssh> |'.

3. **Create or Edit the config File:**

- To create or open the config file using Notepad, type:

```
notepad config
```

- If prompted to create a new file, confirm the creation.



**Tip:**

- By default the file will be stored as `config.txt`
- rename it to `"config"`

**4. Add SSH Configuration:**

- Add your SSH configuration details to the file. For example:

```
Host [redacted]
  HostName [redacted]
  User [redacted]
  ForwardX11 yes
```

- Save the file.

**5. Verify the Config File:**

- Ensure the file is saved as `config` without any extension by listing the contents of the `.ssh` directory:

```
dir
```

## On Linux or macOS

**1. Open Terminal.**

**2. Navigate to the `.ssh` Directory:**

- In the terminal, type the following command:  
`cd ~/.ssh`
- If the `.ssh` directory does not exist, create it:

```
mkdir ~/.ssh
cd ~/.ssh
```

**3. Create or Edit the config File:**

- To create or open the `config` file using `nano`:

```
nano config
```

**4. Add SSH Configuration:**

- Add your SSH configuration details to the file. For example:

```
Host [redacted]
  HostName [redacted]
  User [redacted]
  ForwardX11 yes
```

- Save the file by pressing `Ctrl+O`, then `Enter`, and exit with `Ctrl+X`.

## Step 2: Connect to the Remote Server Using Visual Studio Code

**1. Open Visual Studio Code** on your local machine.

**2. Install Remote - SSH Extension:**

- Go to the Extensions view by clicking the Extensions icon in the Activity Bar or pressing `Ctrl+Shift+X`.
- Search for `Remote - SSH` and click `Install`.

**3. Open the Command Palette:**

- Press `Ctrl+Shift+P` to open the Command Palette.
- Type `Remote-SSH: Connect to Host` and select it.

#### 4. Select Your SSH Host:

- A list of configured SSH hosts will appear. Select the host you added to your config file (e.g., [REDACTED]).
- A new VS Code window will open, connecting you to the remote server.

#### 5. Open Folder on Remote Host:

- In the new VS Code window, navigate to the desired directory on the remote server.
- Click on the Explorer icon in the Activity Bar, then select Open Folder and navigate to /[REDACTED]/scripts or your target directory.

## Troubleshooting

- **Command Not Found Error:** Ensure that the `code` command is available in your PATH. You can add it by opening the Command Palette in VS Code (Ctrl+Shift+P), typing Shell Command: Install 'code' command in PATH, and selecting it.
- **SSH Connection Issues:** Verify your SSH configuration and ensure that you can connect to the remote server using a standalone SSH client like `ssh [REDACTED].com`.