

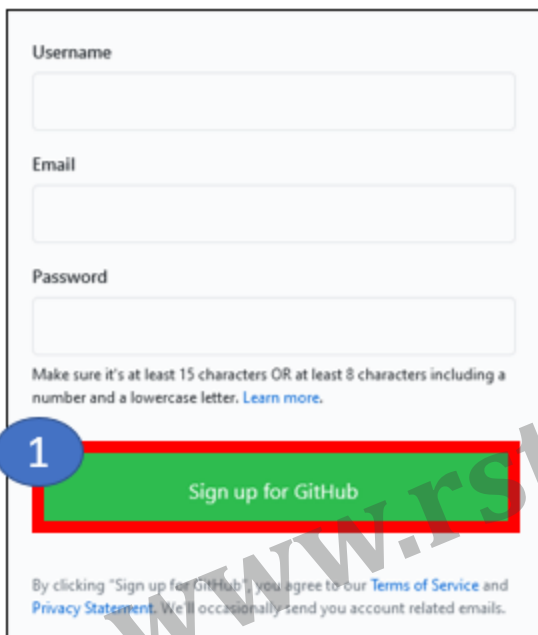
LAB 1: Installing and Configuring Git

Step 1: Create a Github Account

GitHub, Inc. is a United States based global company that provides hosting for software development and version control using Git. It has been a subsidiary of Microsoft since 2018. It offers the distributed version control and source code management (SCM) functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project.

GitHub offers its basic services free of charge. Its more advanced professional and enterprise services are commercial. Free GitHub accounts are commonly used to host open-source projects.

Go to <https://github.com> and click on **Sign up for GitHub**



The image shows a screenshot of the GitHub sign-up form. It includes three input fields: 'Username', 'Email', and 'Password'. Below the 'Password' field, there is a note: 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)'. A blue circle with the number '1' is positioned to the left of a green button labeled 'Sign up for GitHub', which is outlined in red. At the bottom of the form, there is a disclaimer: 'By clicking "Sign up for GitHub", you agree to our [Terms of Service](#) and [Privacy Statement](#). We'll occasionally send you account related emails.'

Provide with your details - username, email address, password & click on Create Account

Username *

RST-10 ✓

Email address *

panchananforaws@gmail.com ✓

Password *


••••••••

Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

Email preferences

Send me occasional product updates, announcements, and offers.

Verify your account



?

Create account

What kind of work do you do, mainly?

Software Engineer
I write code

Student
I go to school

Product Manager
I make specs

UX & Design
I draw interfaces

Data & Analytics
I write queries

Marketing & Sales
I look at charts

Teacher
I educate people

Other
I do my own thing

How much programming experience do you have?

None
I don't program at all

A little
I'm new to programming

A moderate amount
I'm somewhat experienced

A lot
I'm very experienced

What do you plan to use GitHub for?
(Select up to 3)

Learn to code

Learn Go and GitHub

Host a project (repository)

Create a website with GitHub Pages

Collaborating with my team

Find and contribute to open source

School work and student projects

Use the GitHub API


Other

I am interested in:

Languages, Frameworks, Industries

We'll connect you with communities and projects that fit your interests.
For example: [Django](#) [React](#) [Rails](#) [iOS](#)

Complete setup



Please verify your email address

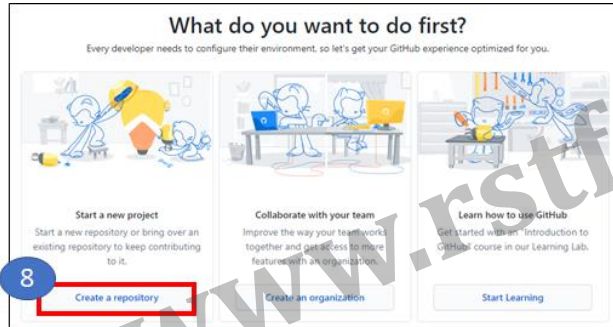
Before you can contribute on GitHub, we need you to verify your email address.

An email containing verification instructions was sent to panchananforaws@gmail.com.

[Resend instructions](#) [Check your email](#)

Step 2: Create a Repository

Click on **Create a new repository**



Create a Public Repository by name centralrepo

Create a new repository
A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)

Owner * / Repository name * **9**
RST-10 / centralrepo ✓

Great repository names are short and memorable. Need inspiration? How about super-memory?

Description (optional)

10 Public
Anyone on the internet can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

Skip this step if you're importing an existing repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer.

Add .gitignore: None / Add a license: None ⓘ

11 Create repository

Step 3: Launch two EC2 instances in two regions (Mumbai & London). Run below commands in both machines

```
sudo su -  
yum update -y  
yum install git -y  
git --version  
git config --global user.name "Ram/Shyam"  
git config --global user.email "ram/shyam@gmail.com"  
git config --list  
git remote add origin https://github.com/RST-10/centralrepo.git
```

Step 4: Git Commands in Mumbai EC2

Create Directory & go inside that

```
mkdir mumbaigit
cd mumbaigit
git init . (to initialize git)
```

Create new file, see status, put in staging area & commit into local repo

```
touch myfile (put some content)
git status
git add .
git commit -m "1st commint from Mumbai"
git log
git show <commit-id>
git push origin master
```

Step 5: Git Commands in London EC2

Create directory & go inside that

```
mkdir londongit
cd londongit
git init (to initialize git)
git remote add origin <centralgit repo url>
git pull origin master
git log
git show <commit-ID>
cat >> file1 (append with some content)
git status
git add .
git commit -m "1st commit from London"
git push -u origin master
```

Step 6: Git Log

Git log options

```
git log
git log -1
git log --oneline
```

To pic commit based on commit message

```
git log --grep "any word of commit msg"
```

To see the content of particular commit

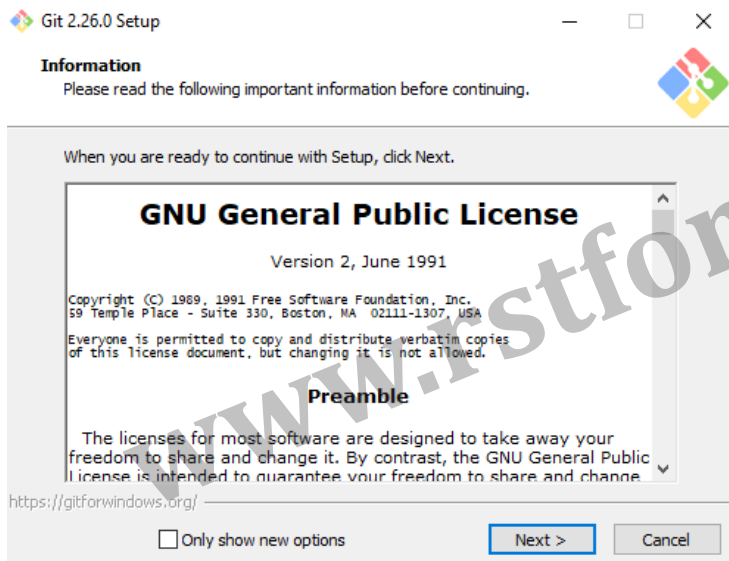
```
git show <commit-ID>
```

Installing Git on Windows

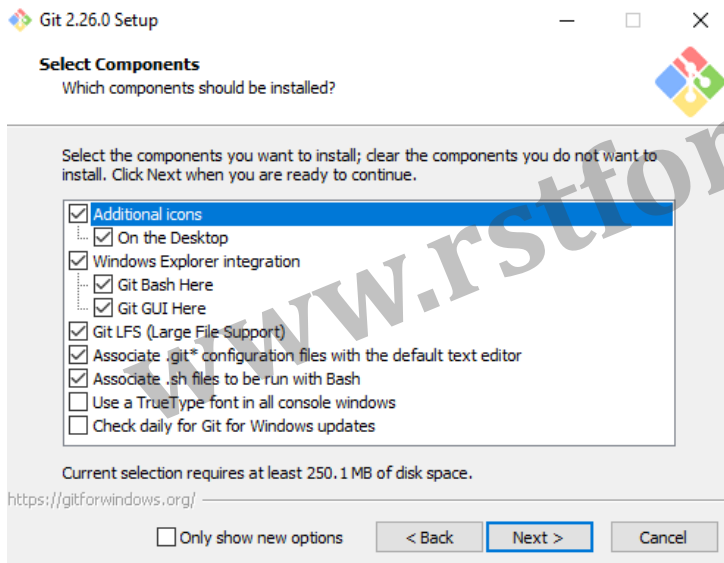
Go to the browser and search for <https://git-scm.com/downloads> and click on Download 2.27.0 for windows



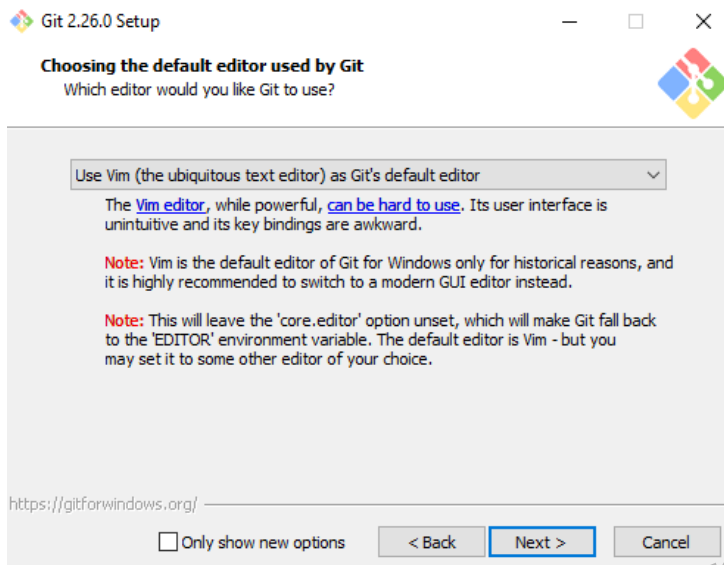
Follow the installations steps, Click Next



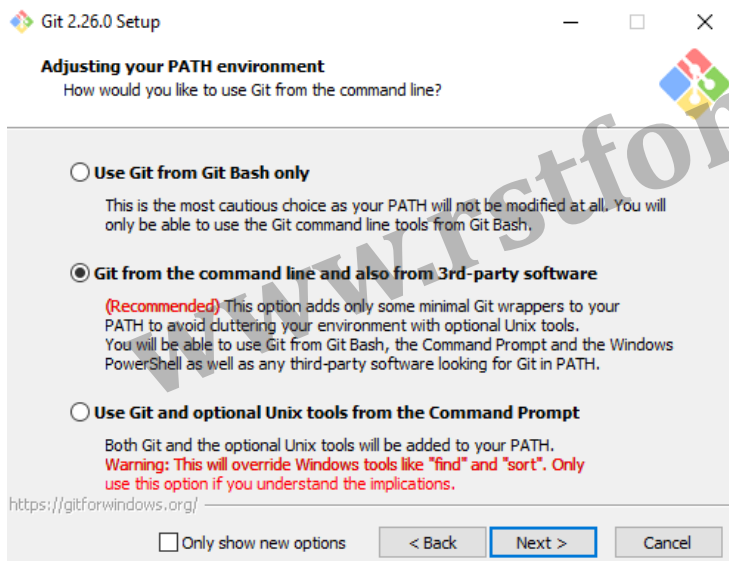
Check the Additional icons and click on Next



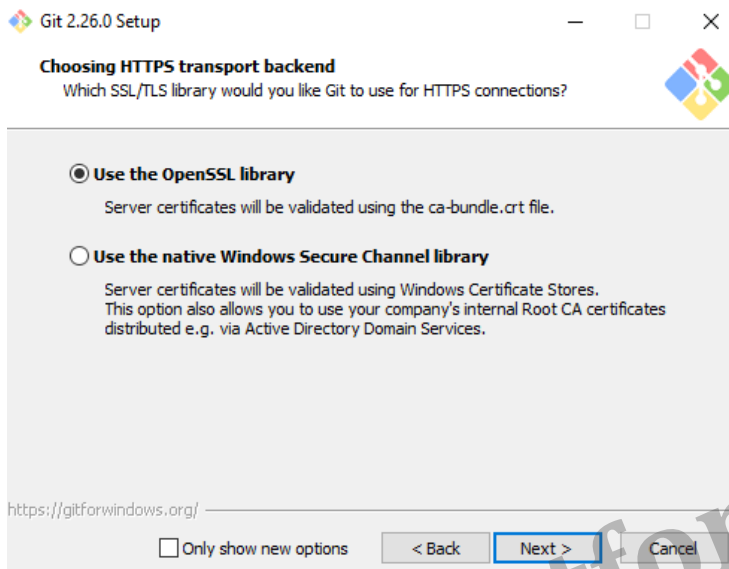
Click Next



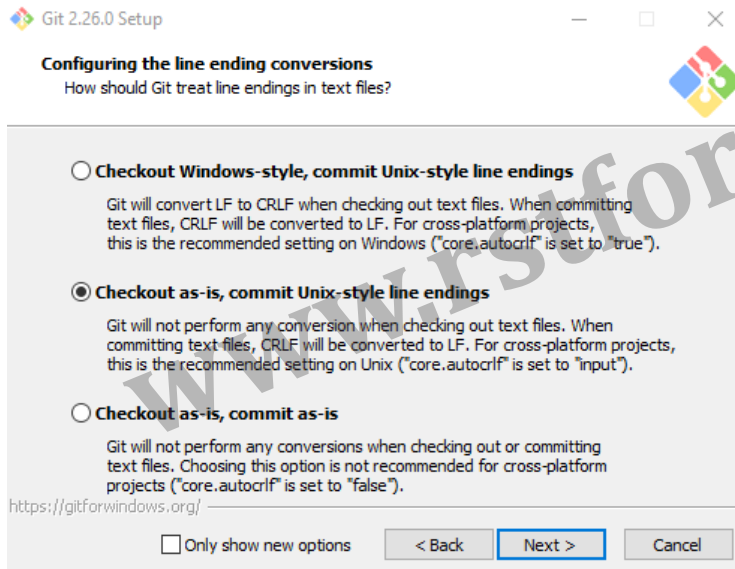
Leave it by default (Git from the command line and also from 3rd party software) Click Next



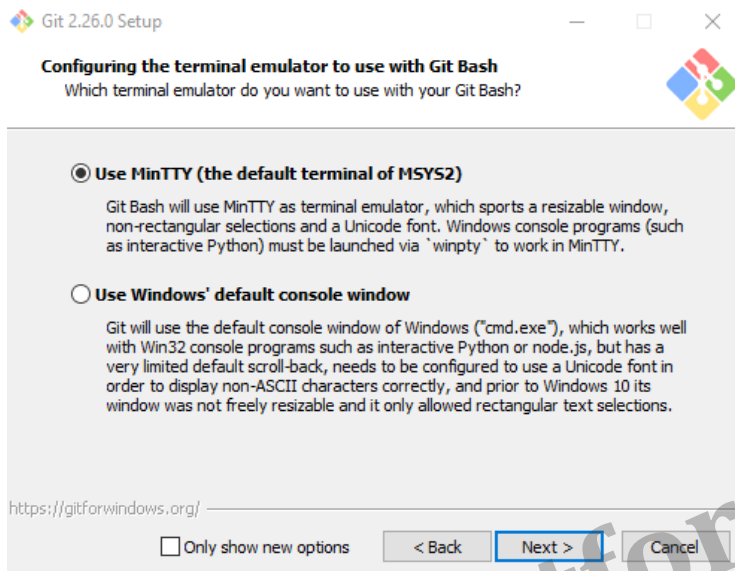
Leave it by default (Use the OpenSSL library) Click Next



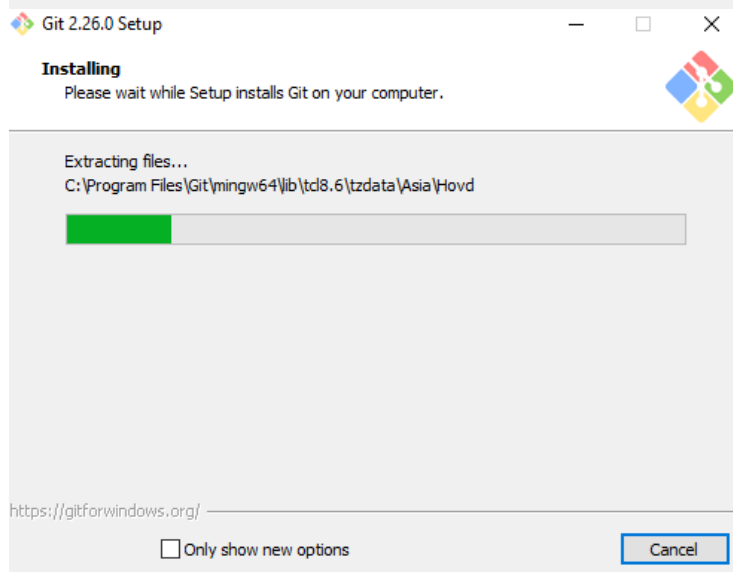
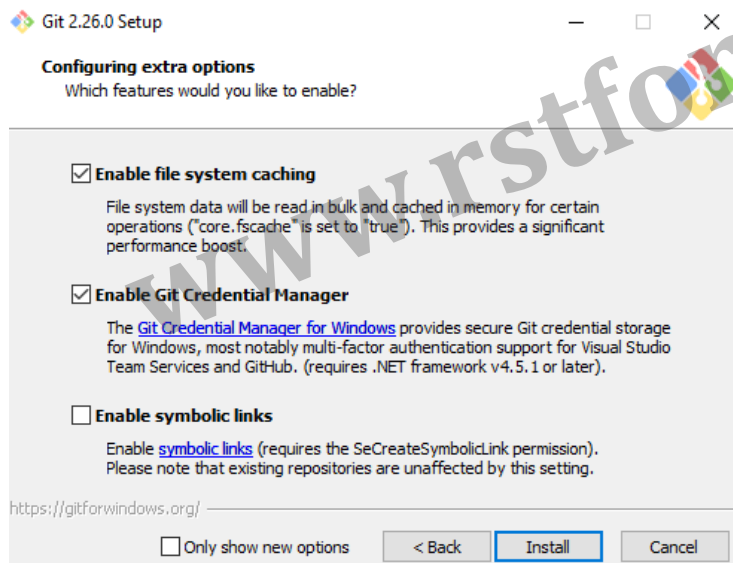
Leave it by default (Checkout as-is, commit Unix-style line endings) Click Next



Leave it by default (Use MinTTY) Click Next



Leave it by default (Enable file system caching, Enable Git Credential Manager) Click Install



Verification: Open Command prompt and check the version of git

```
C:\WINDOWS\system32\cmd.exe
```

```
C:\Users\Panchanan>git --version  
git version 2.26.0.windows.1
```