

TECHNOLOGY



Caltech | **Center for Technology & Management Education**

Full Stack Java Developer

TECHNOLOGY



Git

Installing Git



Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Learn how to install Git locally and set up the account
- 👁 Explore GitHub, its uses, and features
- 👁 Learn to install Bitbucket



A Day in the Life of a Full Stack Developer

You are working as a full-stack developer in an organization and have been assigned to an application development project. You being the product lead, have decided to manage the source code of the project and maintain each change that happens in the code.

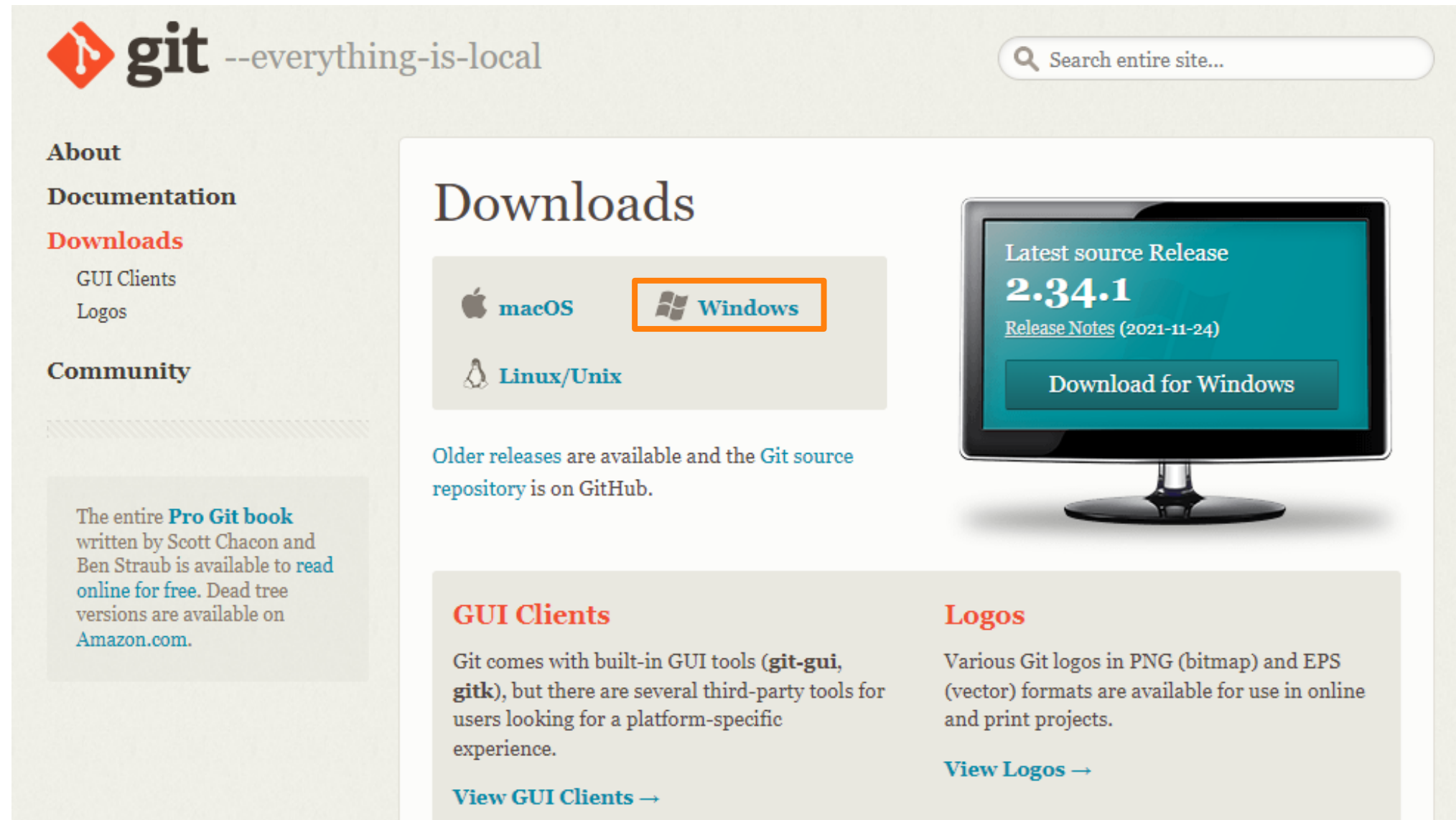
To do so, you would need a version control system, that is, Git or GitHub. You would also need to install Git locally in your system. You will also need BitBucket in this project; hence installing BitBucket will also be necessary for you.



Installing Git

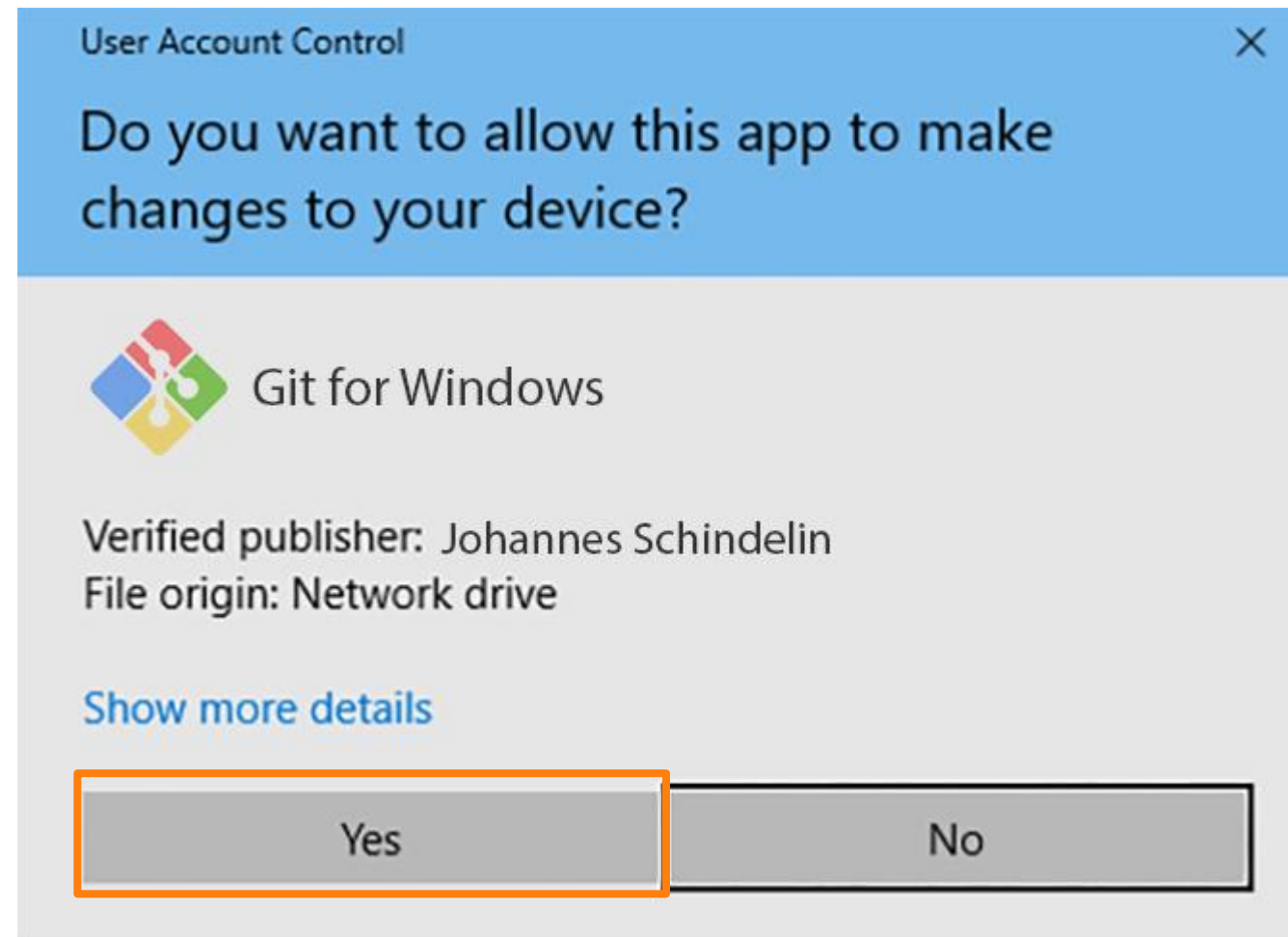
Installing Git

Access the website in the browser address bar, and type <https://git-scm.com/downloads>.



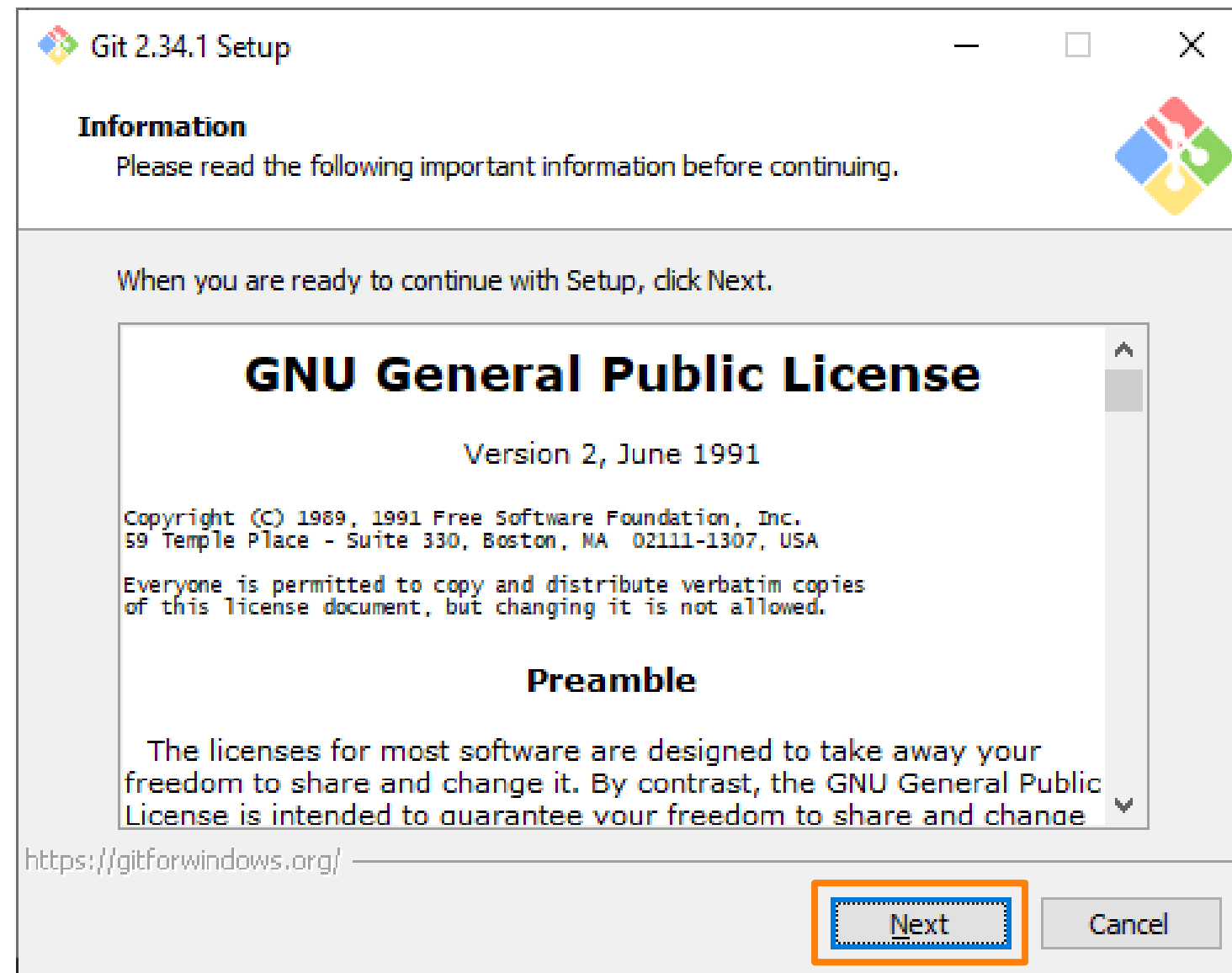
Installing Git

Click Yes on the User Account Control dialog box to allow the app to make changes to the device.



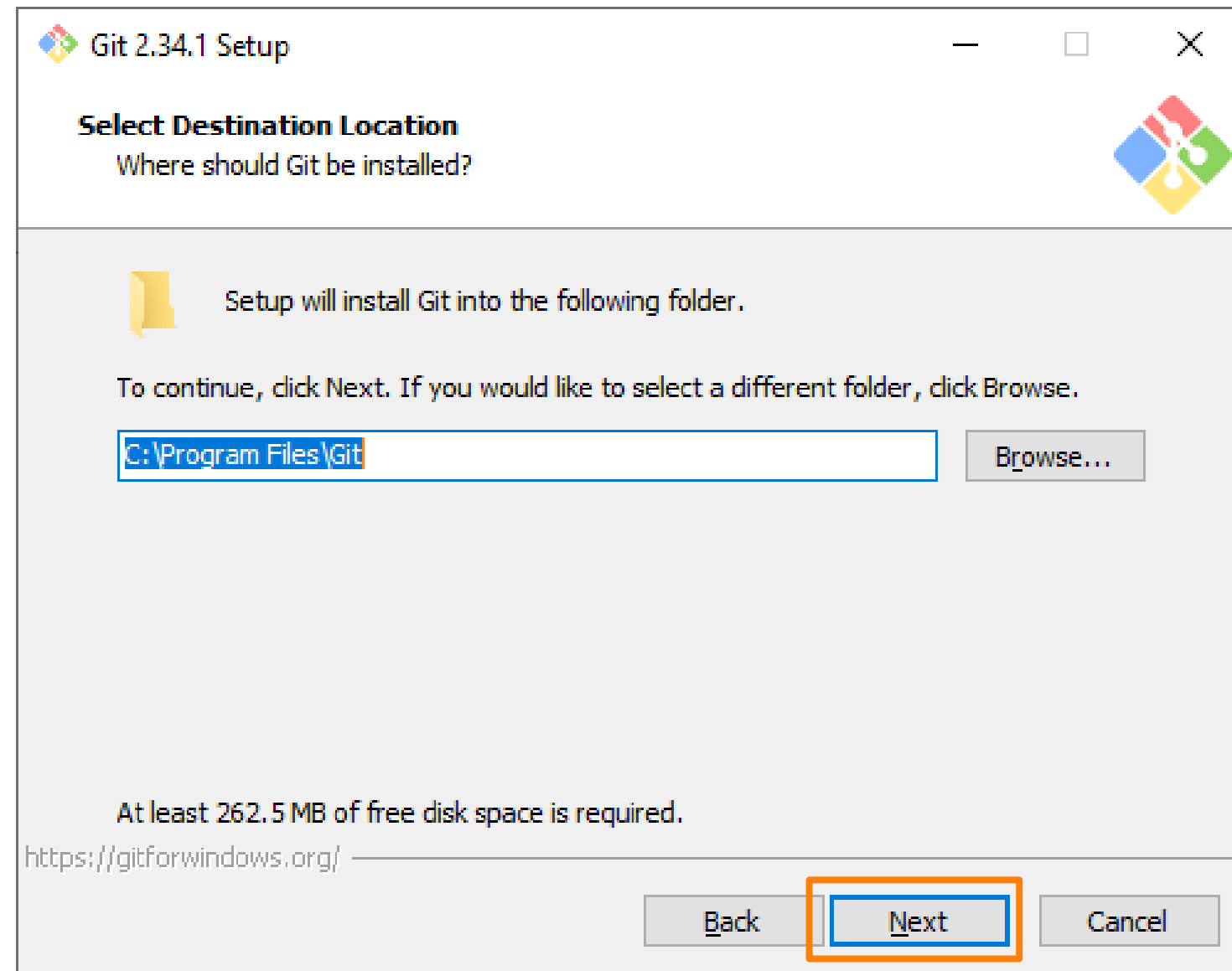
Installing Git

Review the GNU General Public License. Click on the "Next" button.



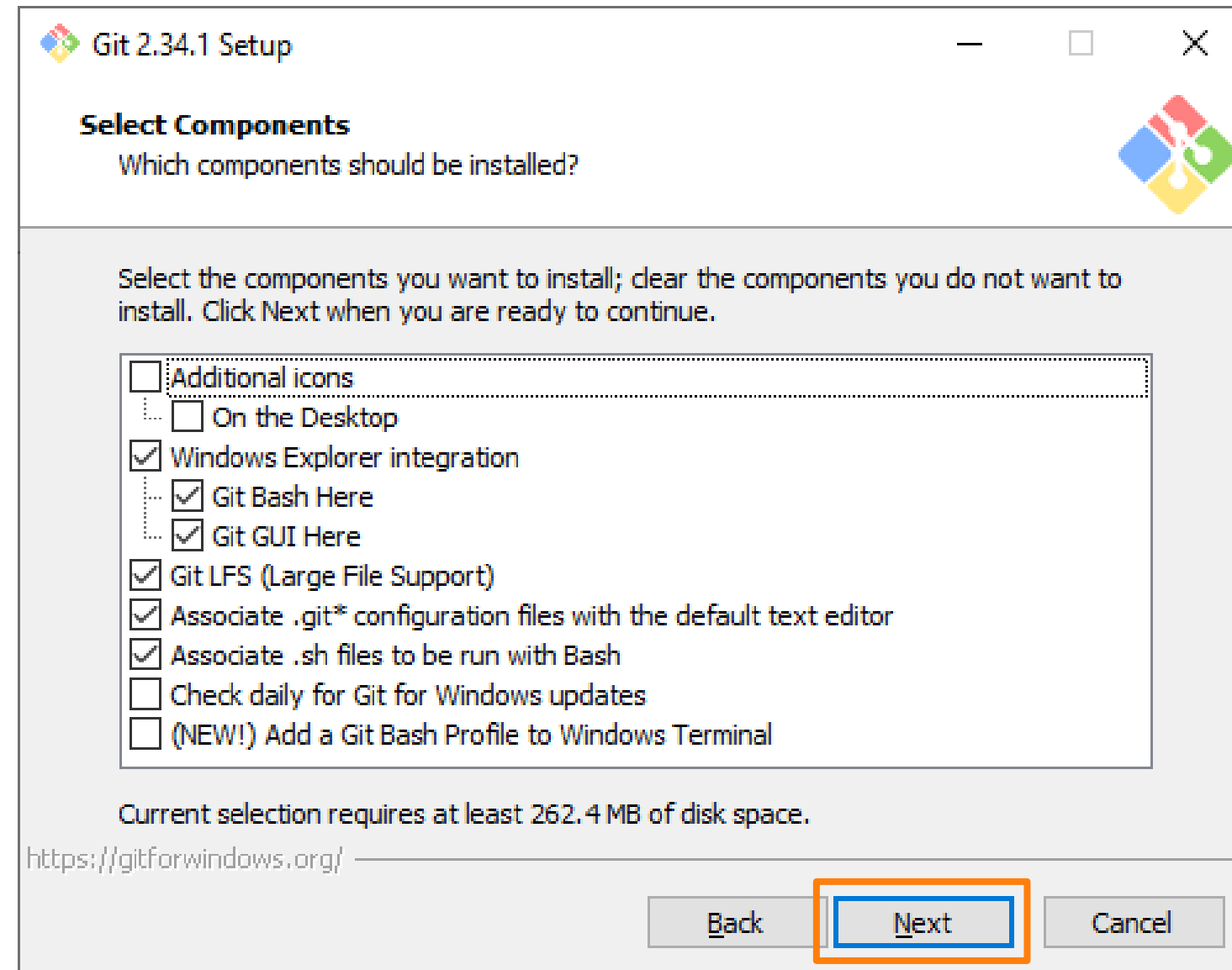
Installing Git

It will ask for the installation location on the device. Leave the default location and click on the Next button to continue.



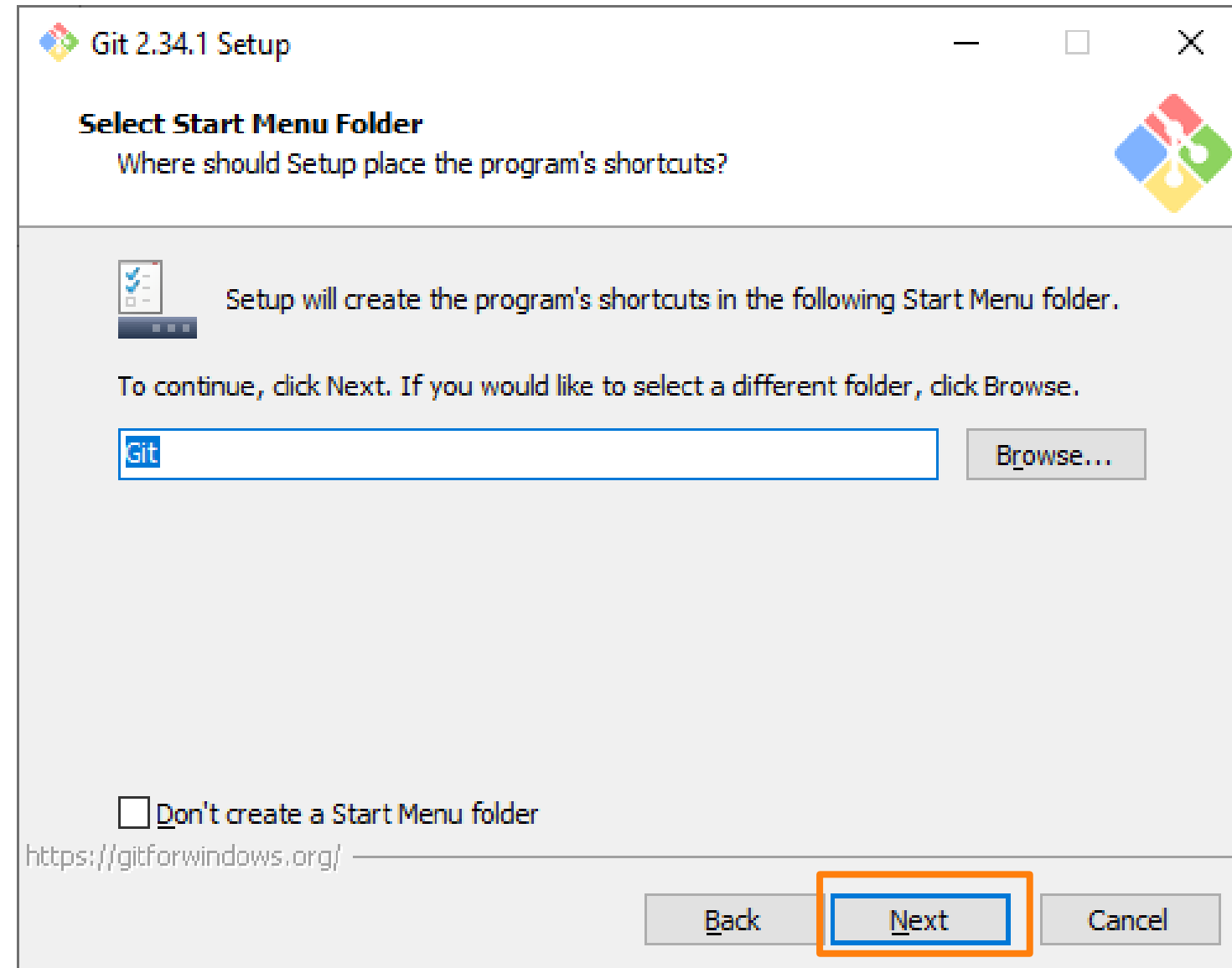
Installing Git

Leave the defaults unless they have a specific change, and click the Next button.



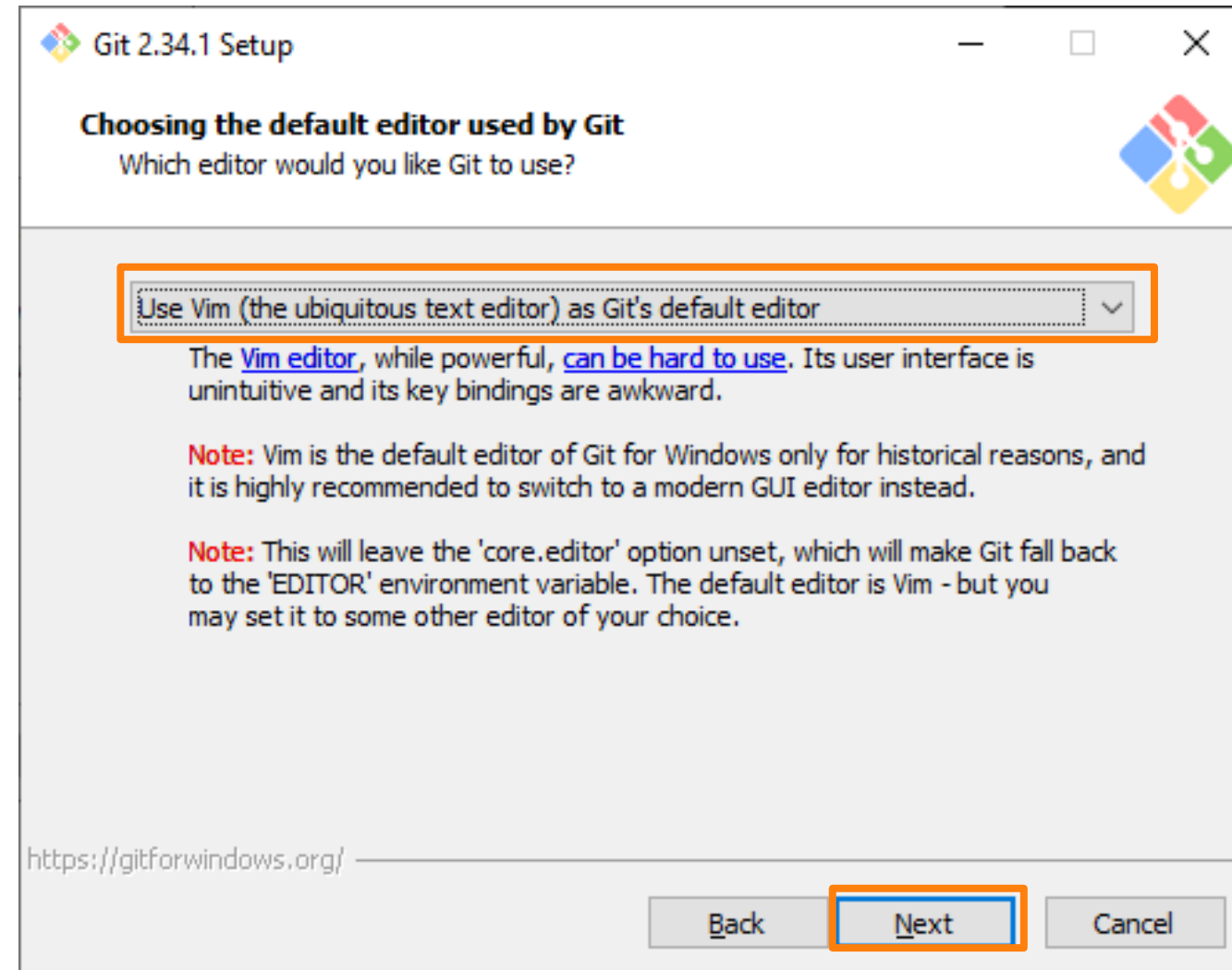
Installing Git

The installer asks for the Start menu folder. Keep the default settings as is and click the Next button to continue.



Installing Git

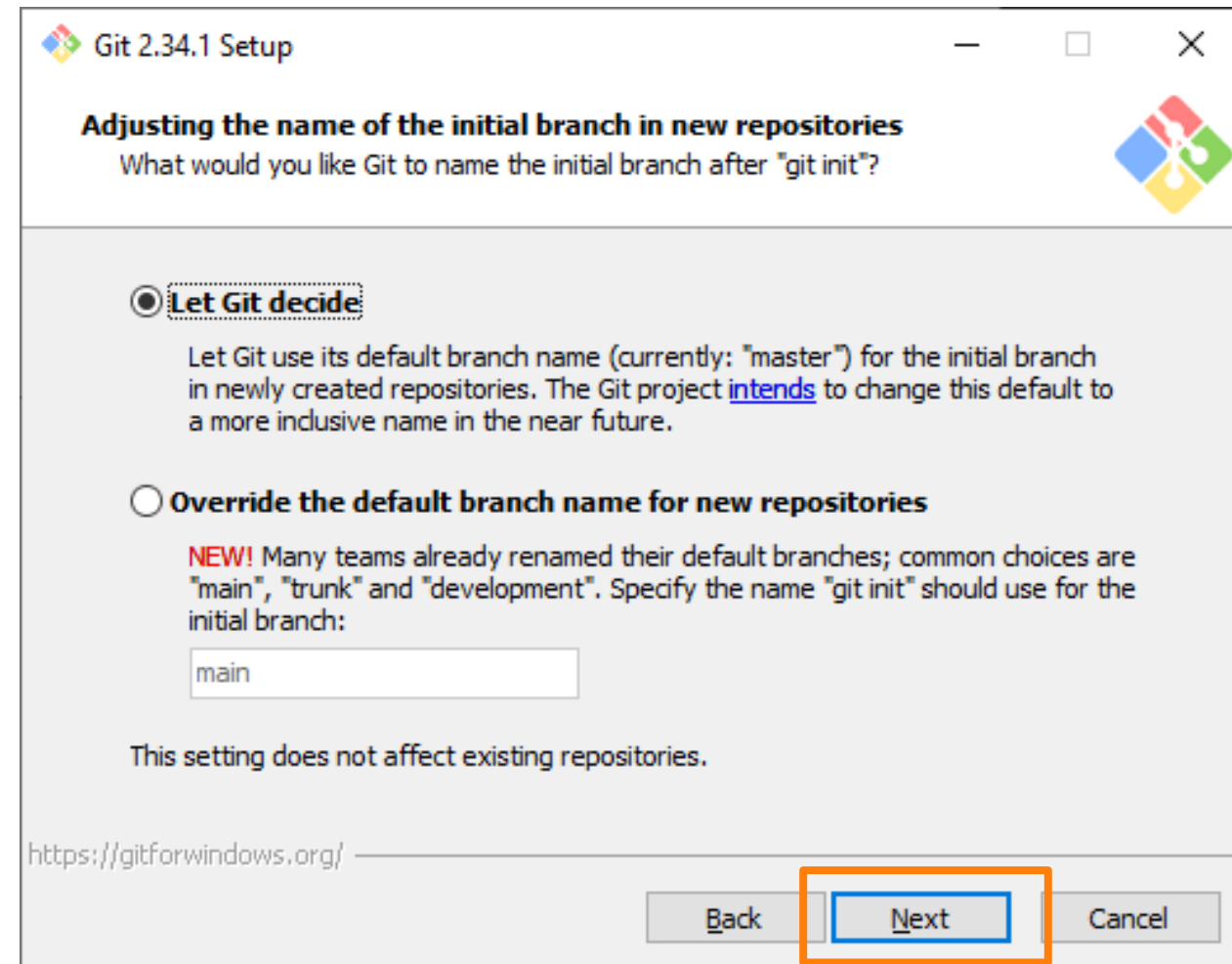
The initial branch by default is 'master'.



It is advisable to leave the default option as is and click Next.

Installing Git

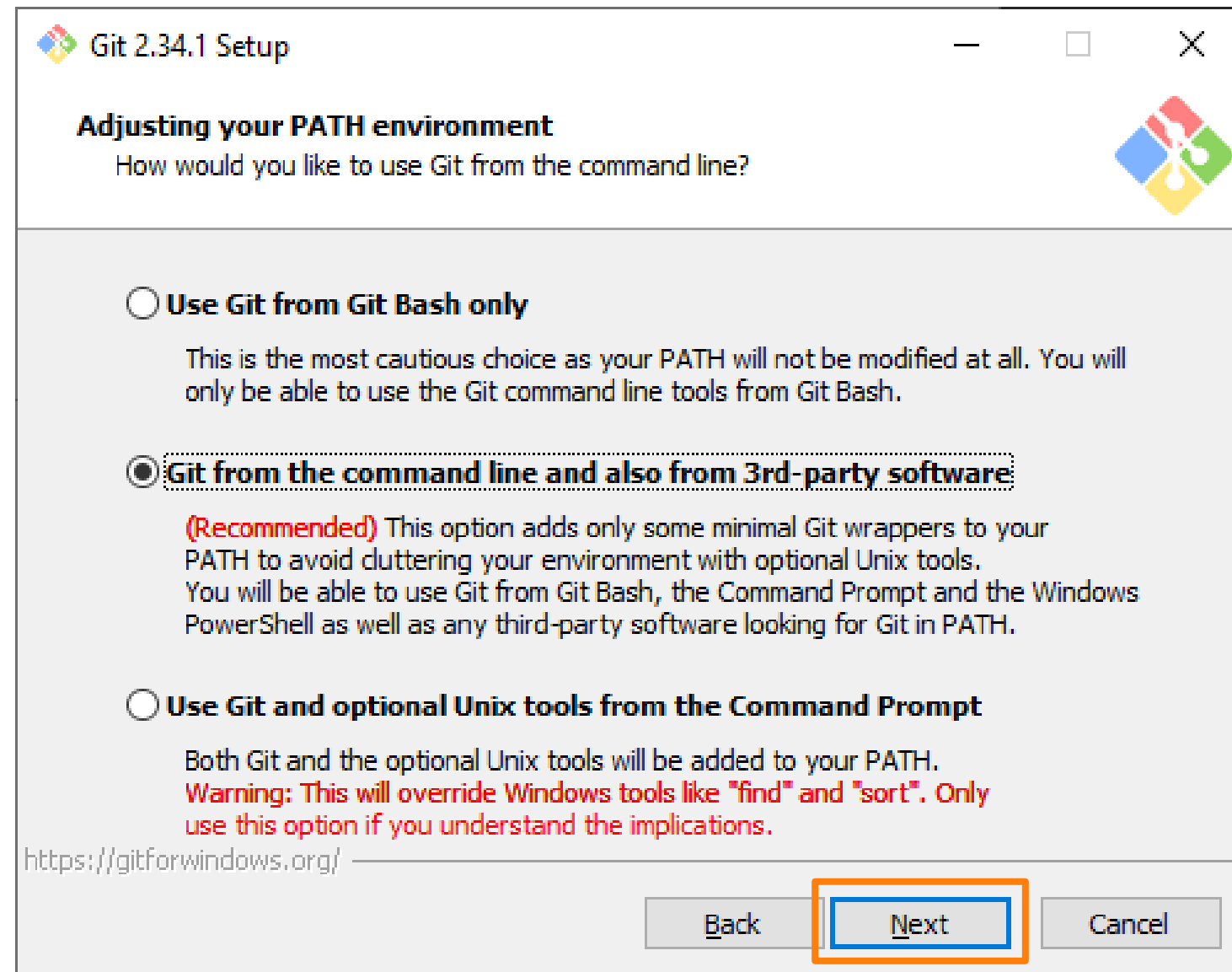
Once done, decide the name of the Git default or initial branch; by default, it is "main."



For any changes, select the option of "override the default branch name for the new repository," type the name in the field and press the "next" button to continue.

Installing Git

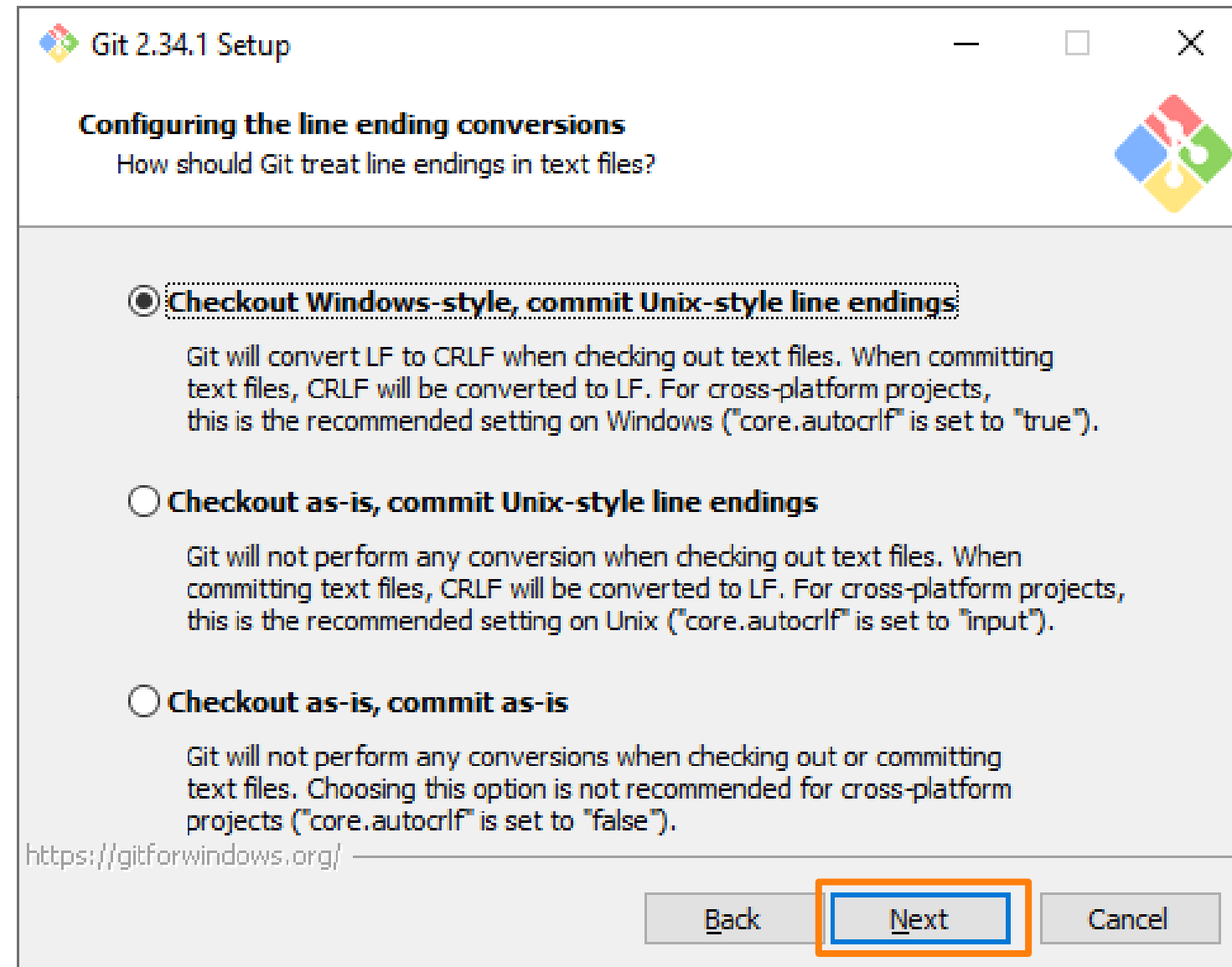
The PATH contains a default set of directories included when a command is executed from the command line.



Do not alter the default selection selected, and click Next.

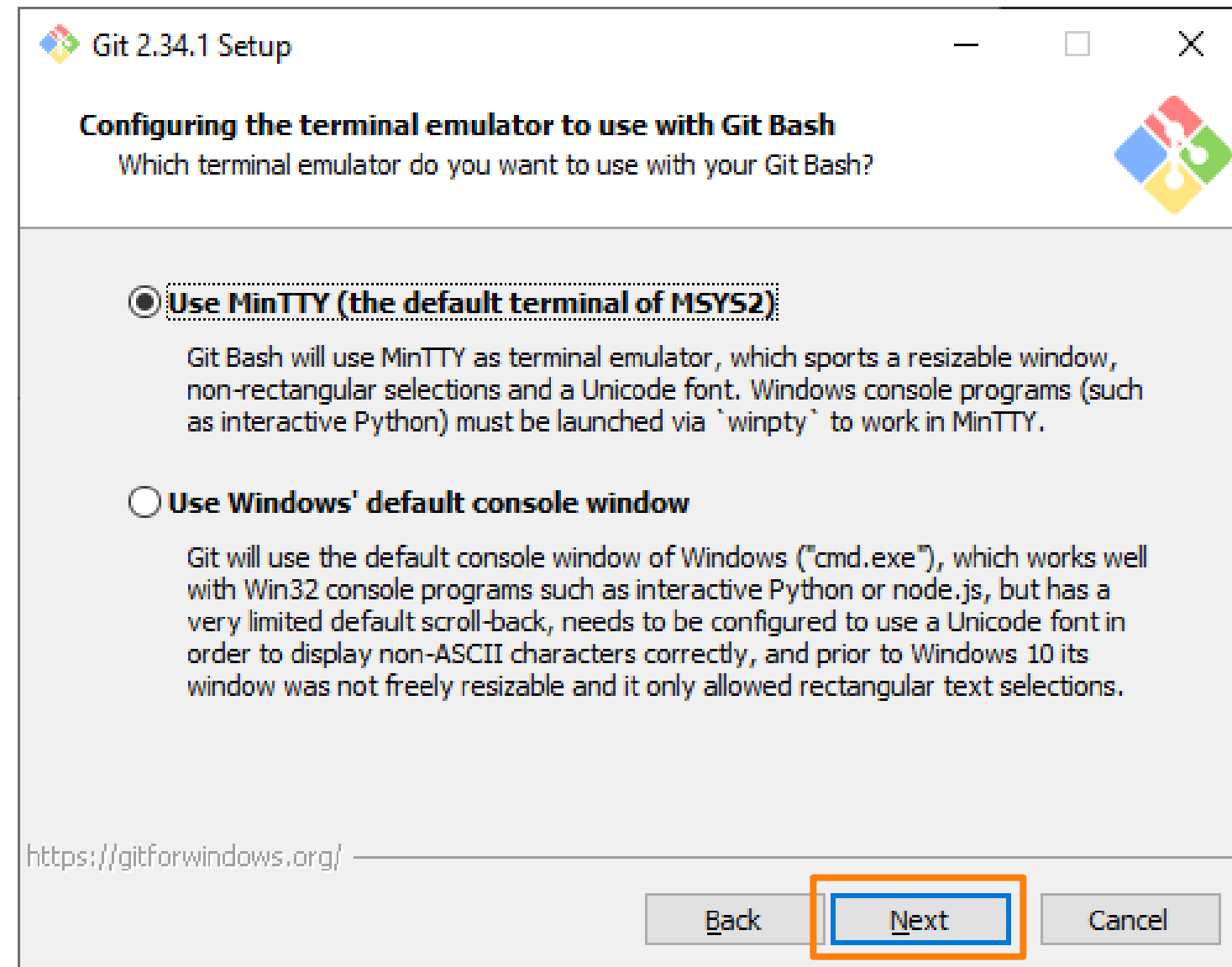
Installing Git

Next, configure line-ending conversions, leaving the default option.



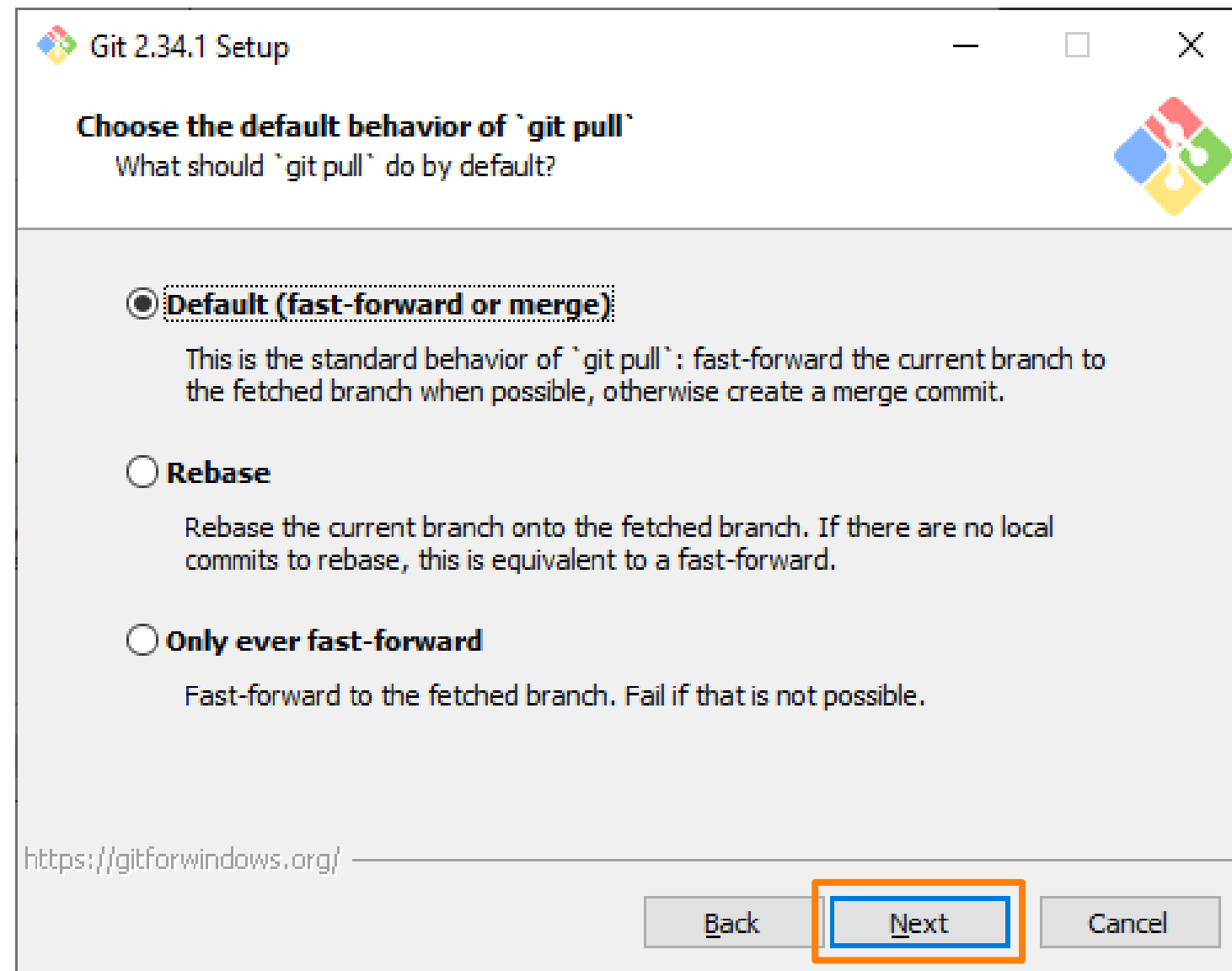
Installing Git

The installer will ask for a terminal emulator to use with GIT Bash.



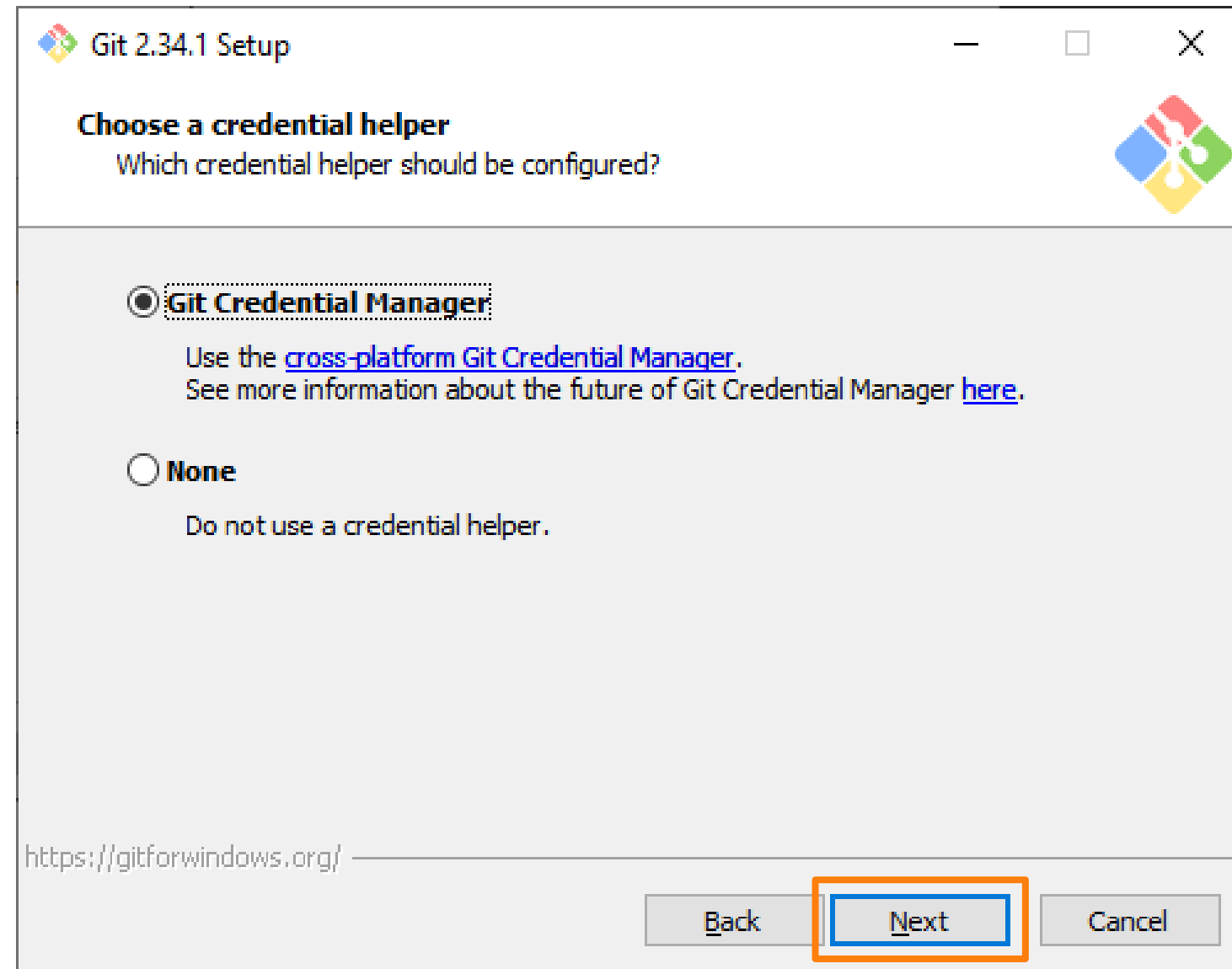
Installing Git

By default, the installer will ask for the behavior of the 'git pull' command.



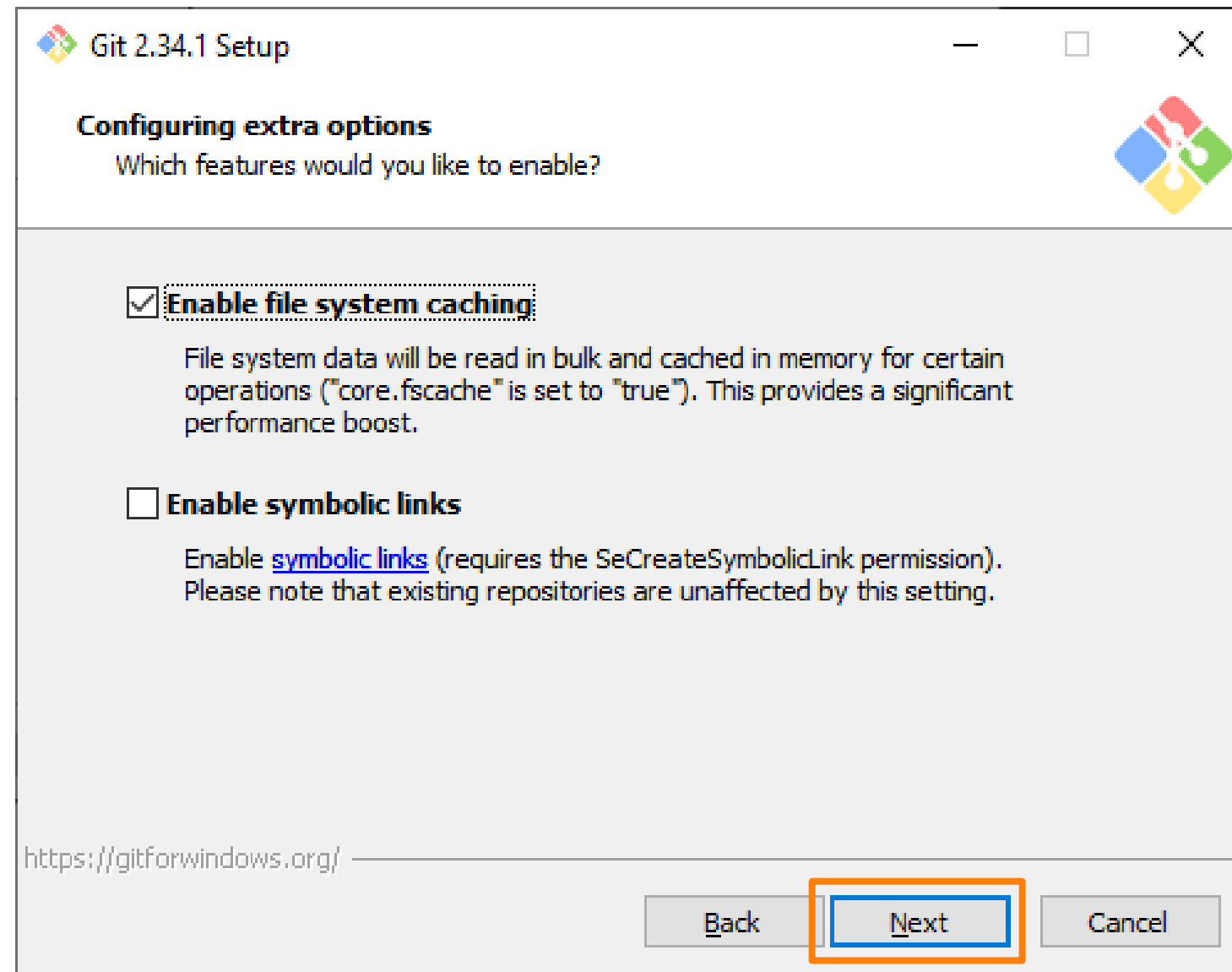
Installing Git

Choose the Git Credential Helper. Leave the default option as is and click Next.



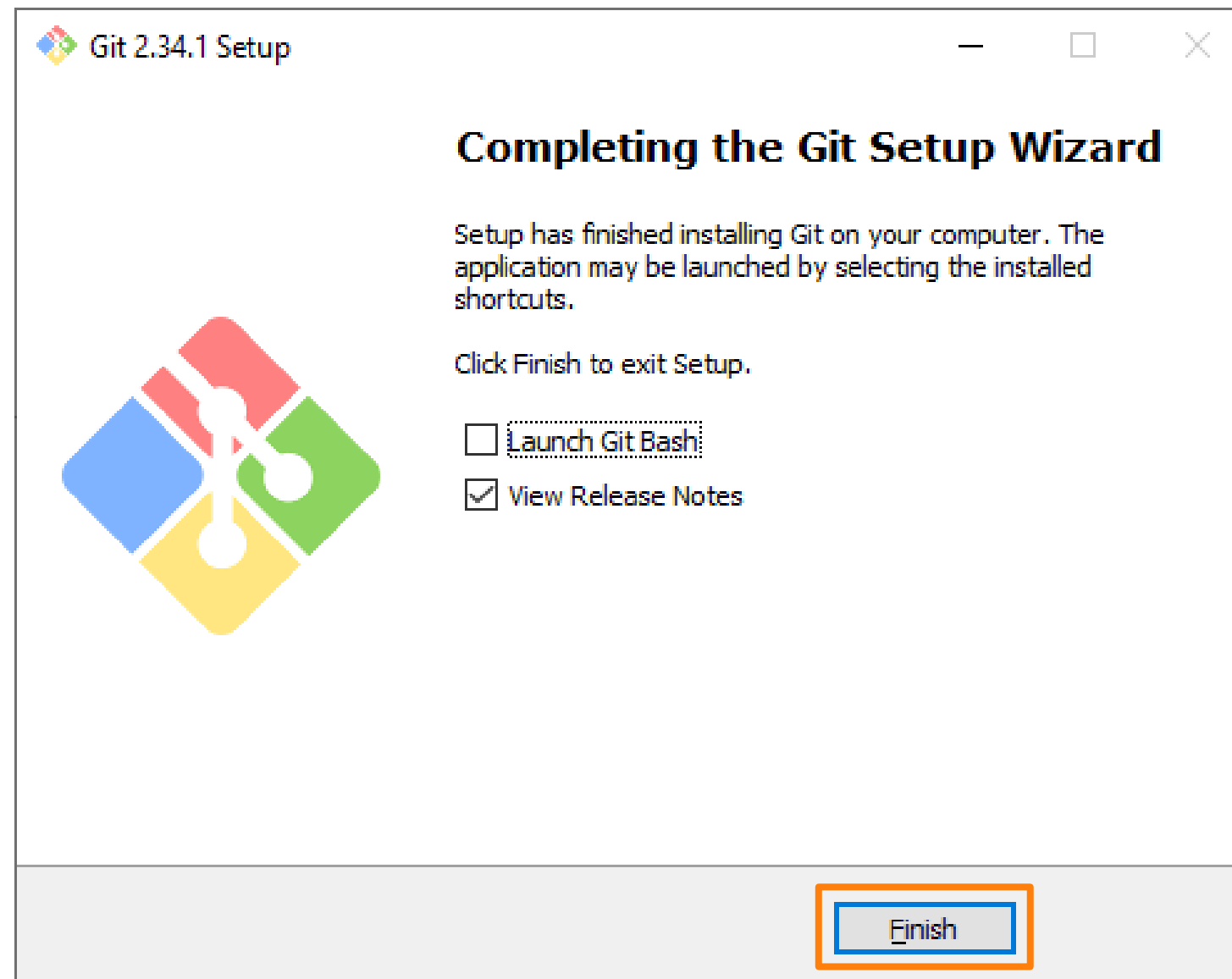
Installing Git

Depending on which version is being installed, it may offer to install experimental features.



Installing Git

Once the installation process is complete, tick the boxes to view the Release Notes or Launch Git Bash and then click Finish.



Configuring Git Account with GitHub



Problem Statement:

Configure Git account with GitHub to create a repository.

ASSISTED PRACTICE

Assisted Practice: Guidelines

Steps to configure Git account with GitHub are:

1. Create a GitHub account
2. Configure Git account with GitHub



Installing BitBucket

Installing BitBucket

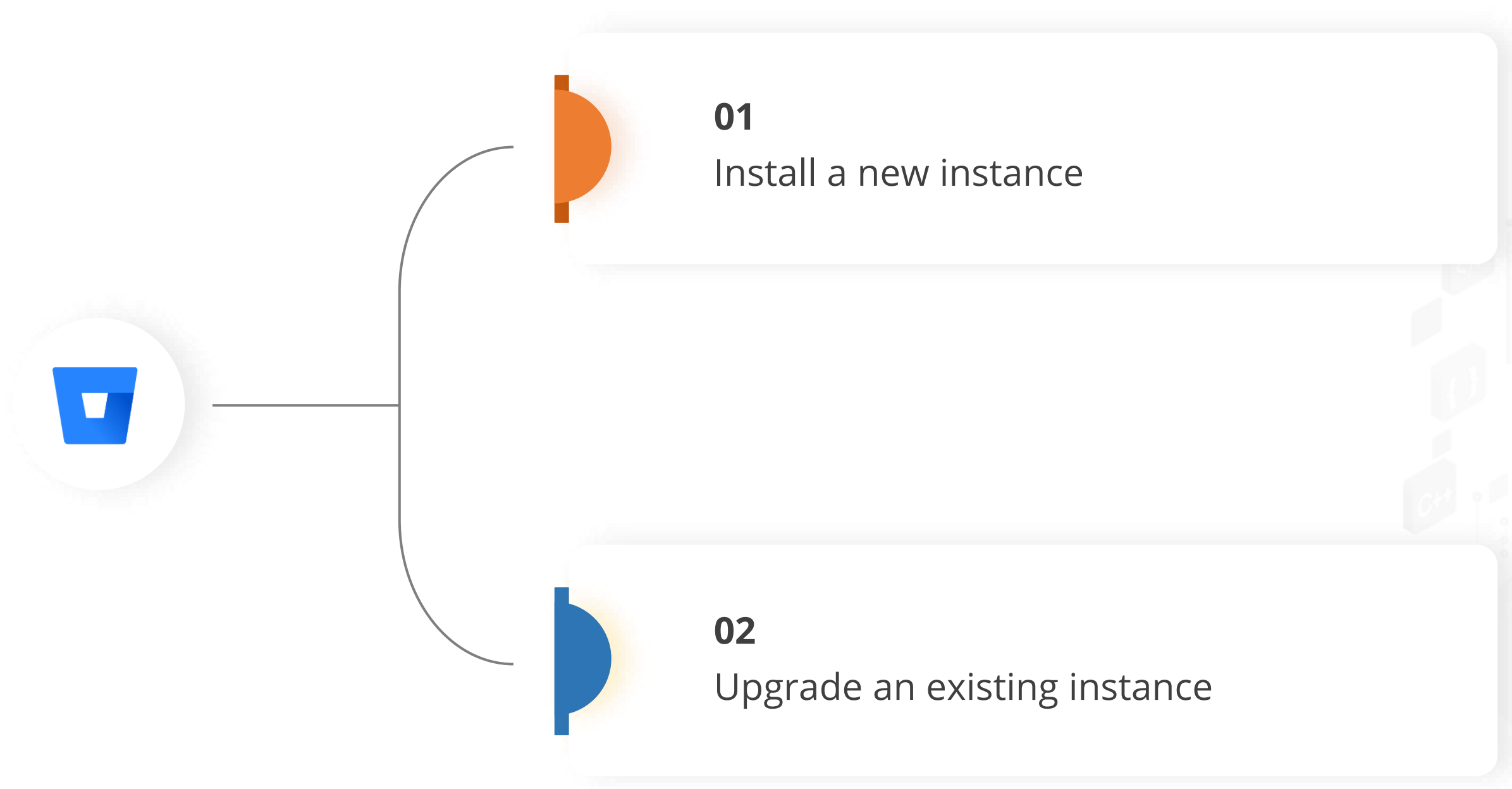
It is a source code repository in Git and helps in code management.

Download the installer

Go to the browser and type
www.atlassian.com/software/bitbucket/download

Double-click on the downloaded file to launch the Git installer

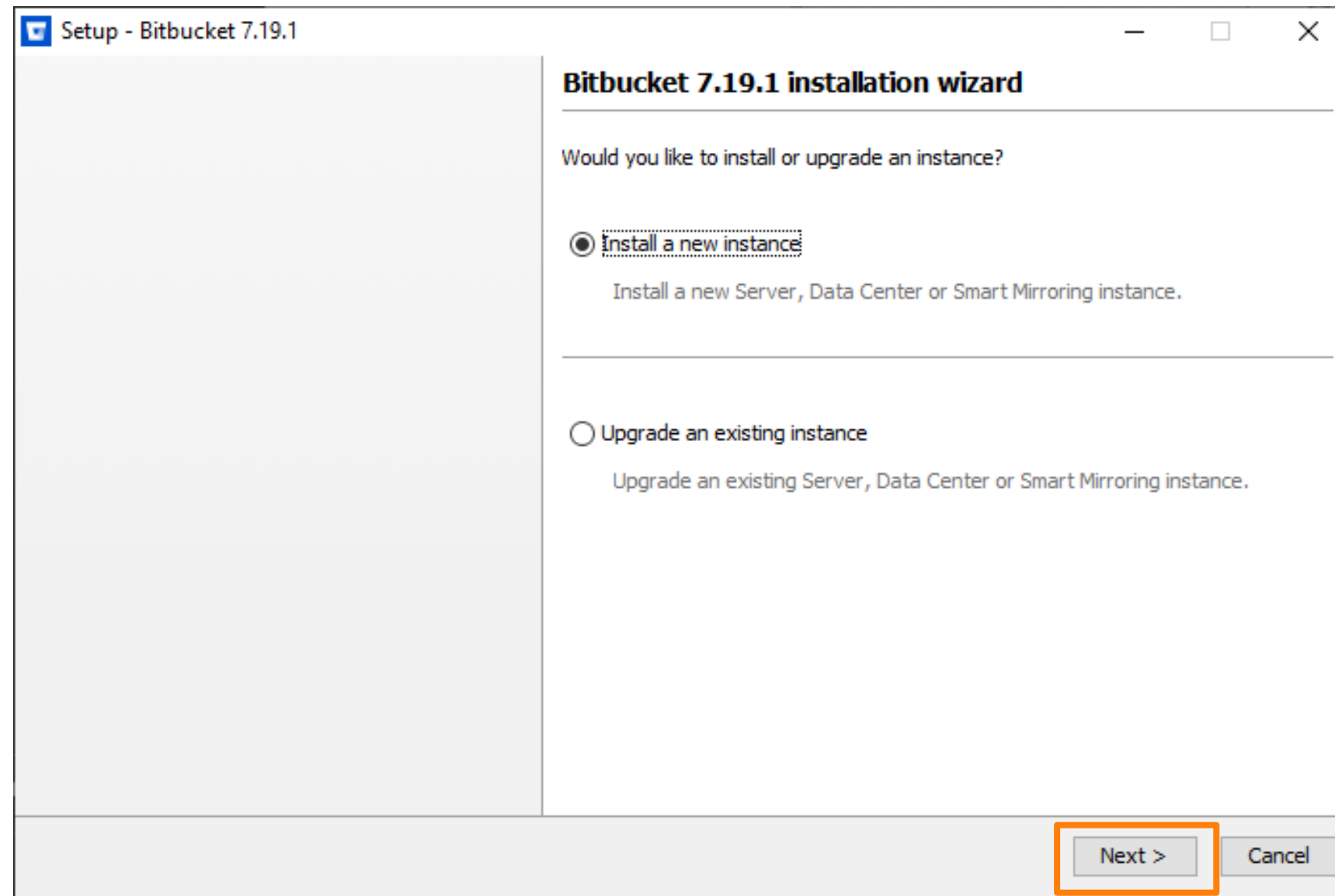
Installing BitBucket



Select anyone based on the requirement and click Next.

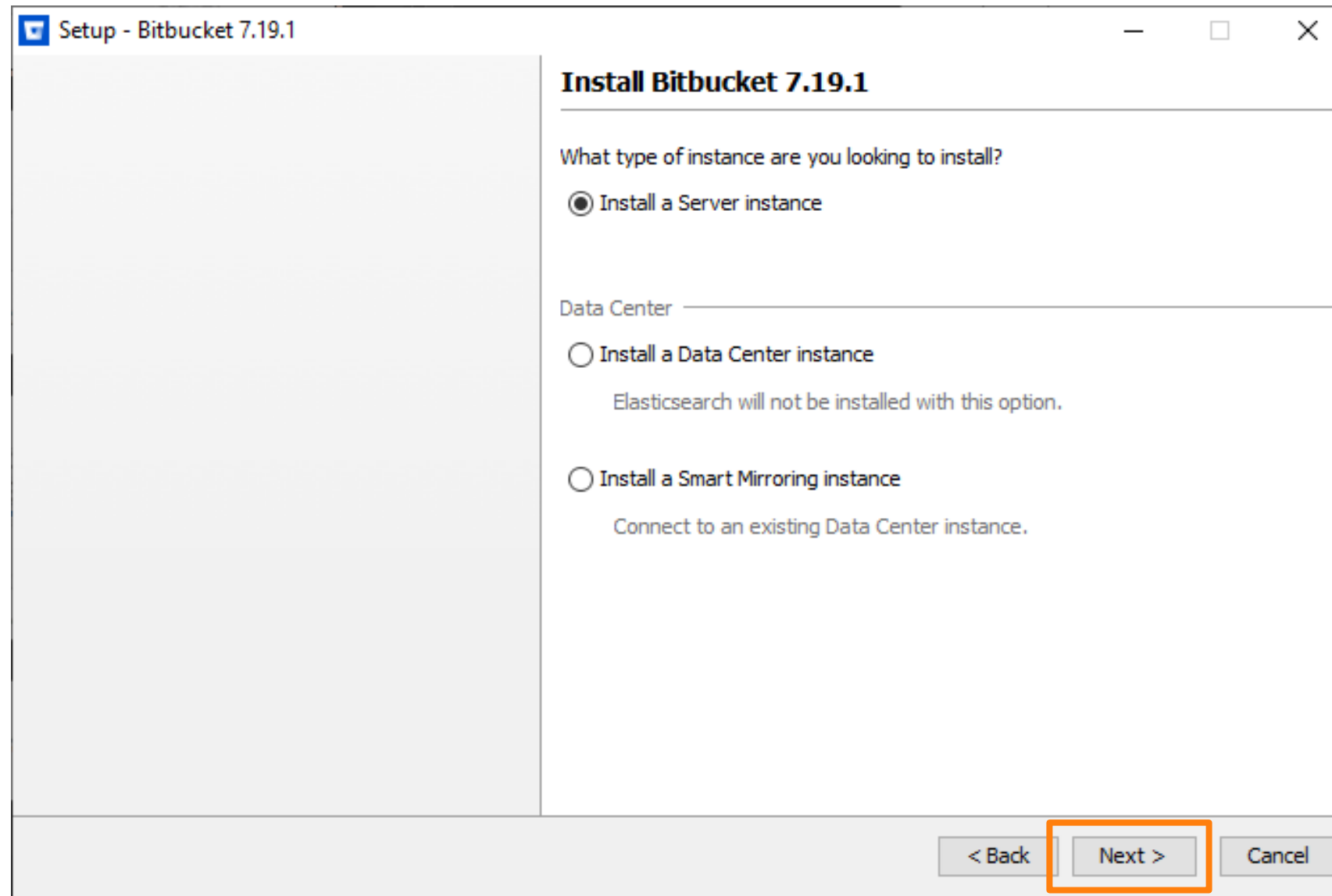
Installing BitBucket

The installer asks for the BitBucket instance, which means it is asking if one wants to install a new instance or upgrade an existing instance.



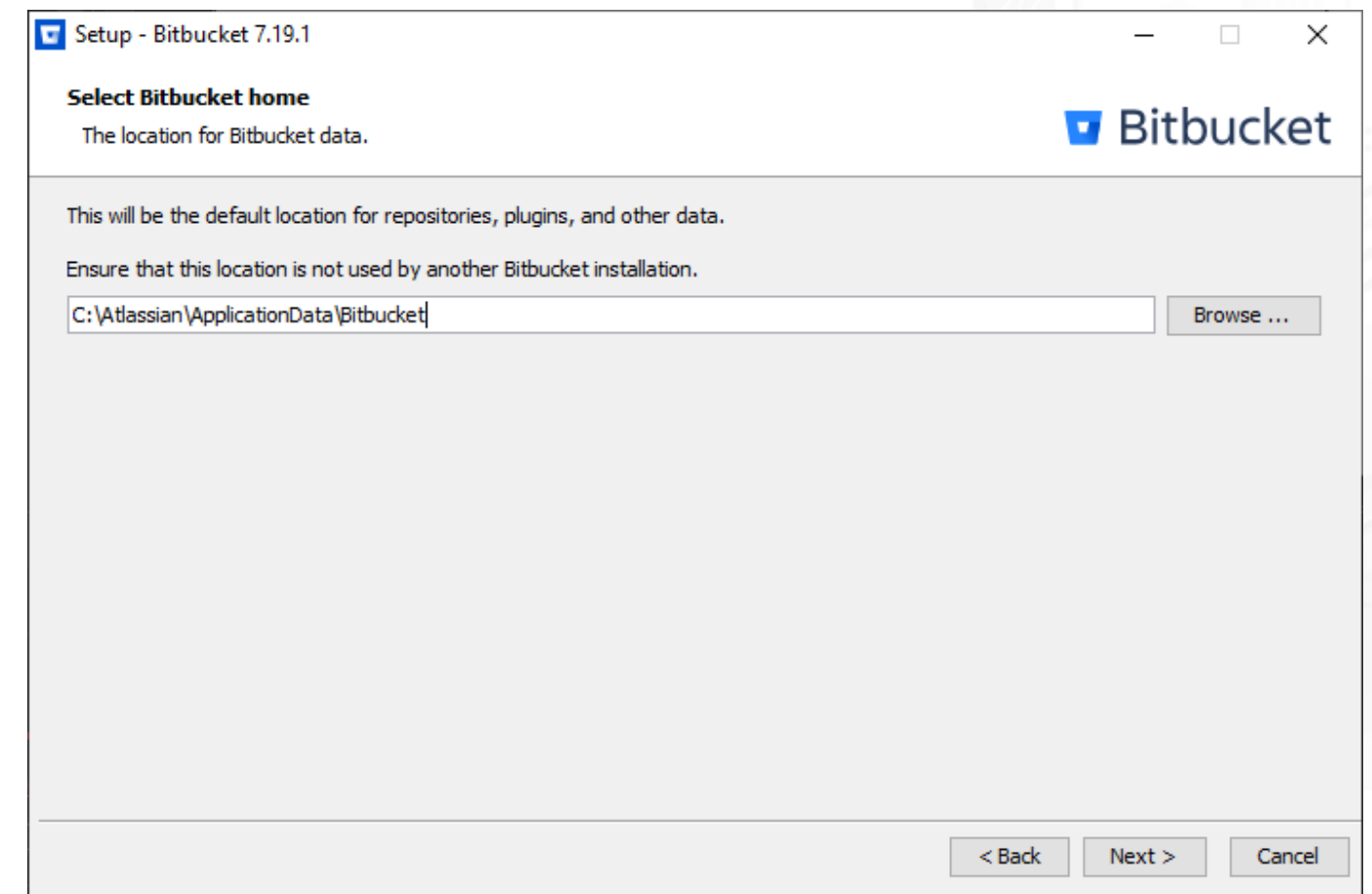
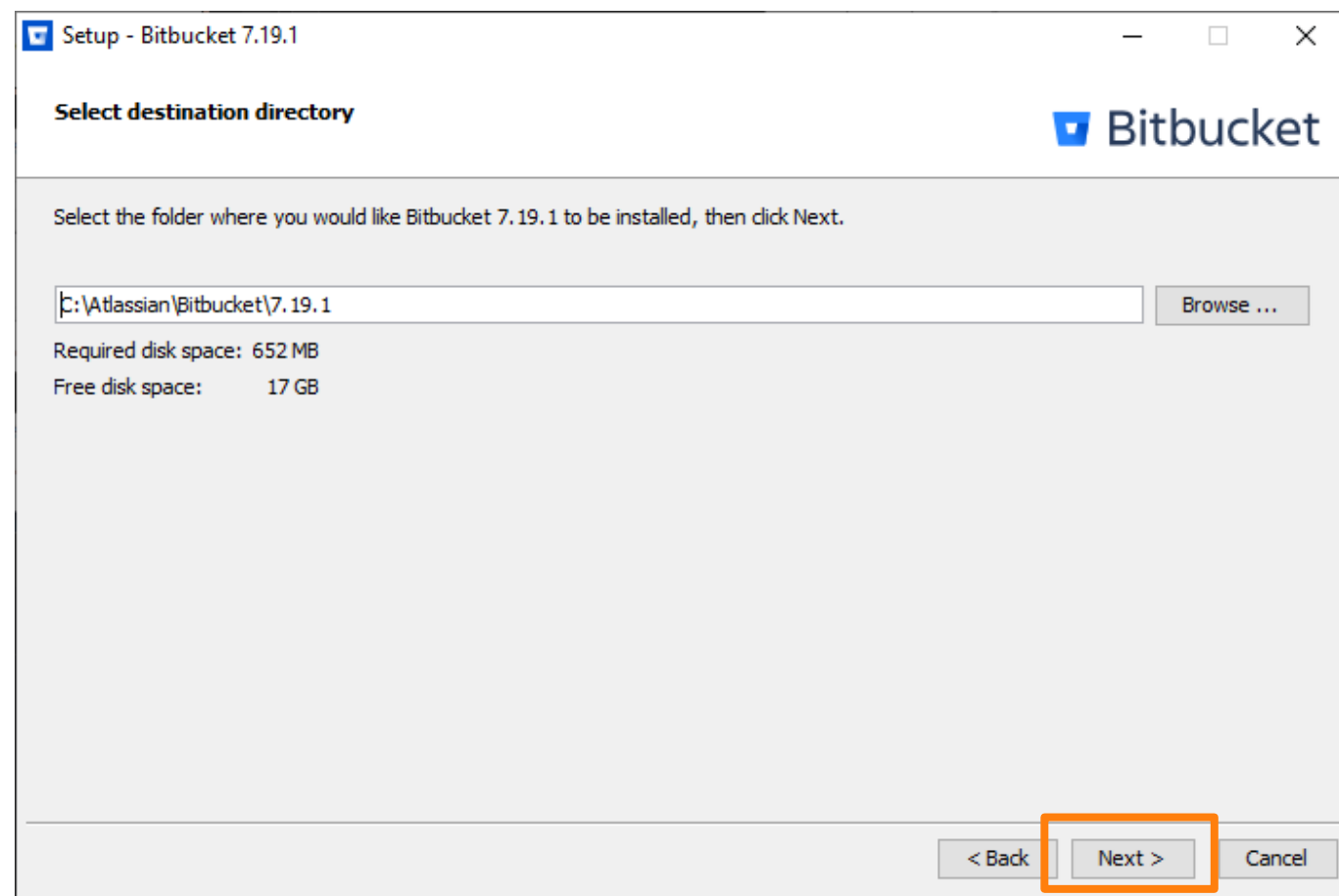
Installing BitBucket

Next, the installer will ask one for the BitBucket instance type.



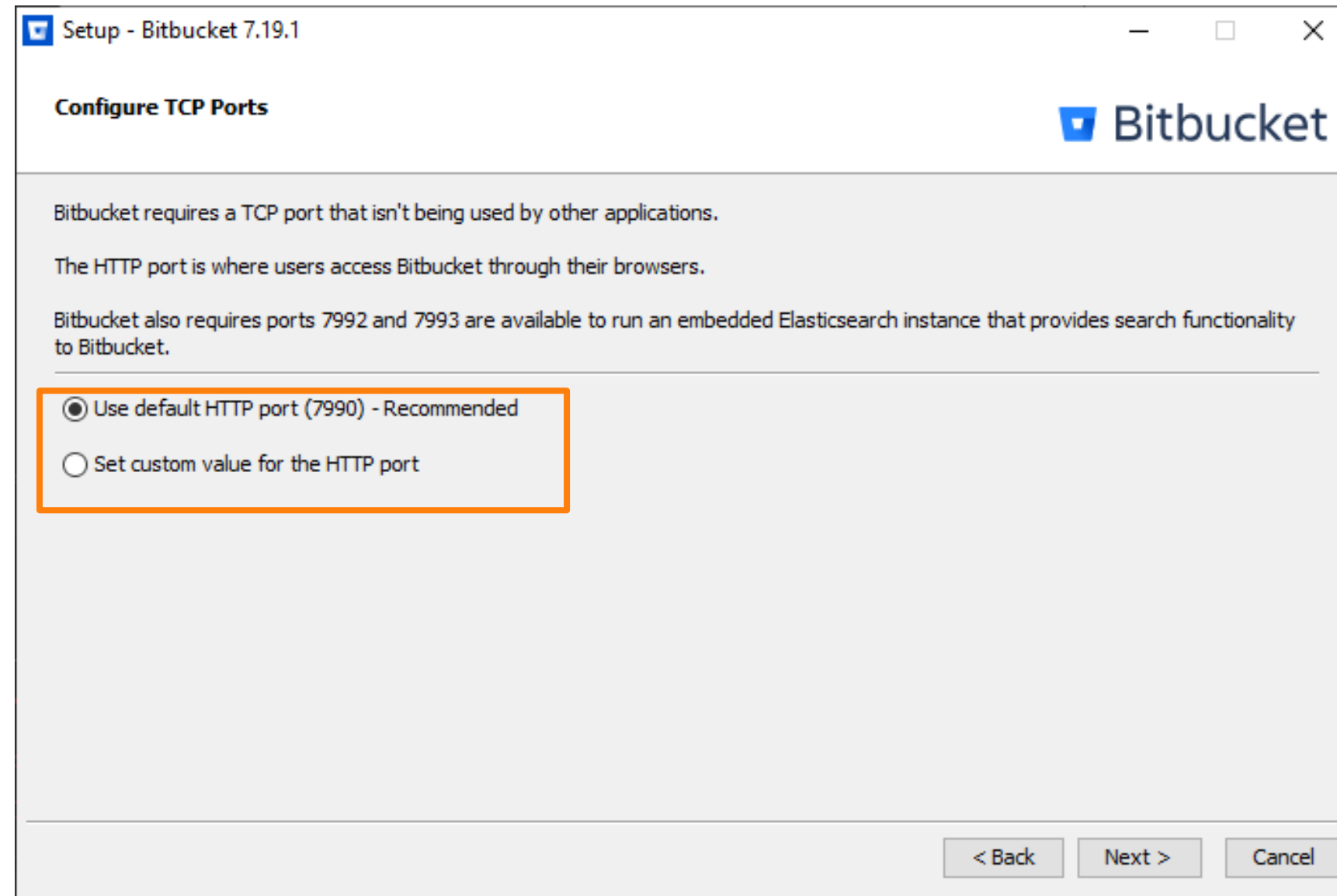
Installing BitBucket

The installer will also ask one the location of the BitBucket Home directory where the BitBucket application data will be stored.



Installing BitBucket

Once the BitBucket installation is completed, launch it in any browser.



Installing BitBucket

Connect with the database if already created, else create a new database before using the BitBucket Server.

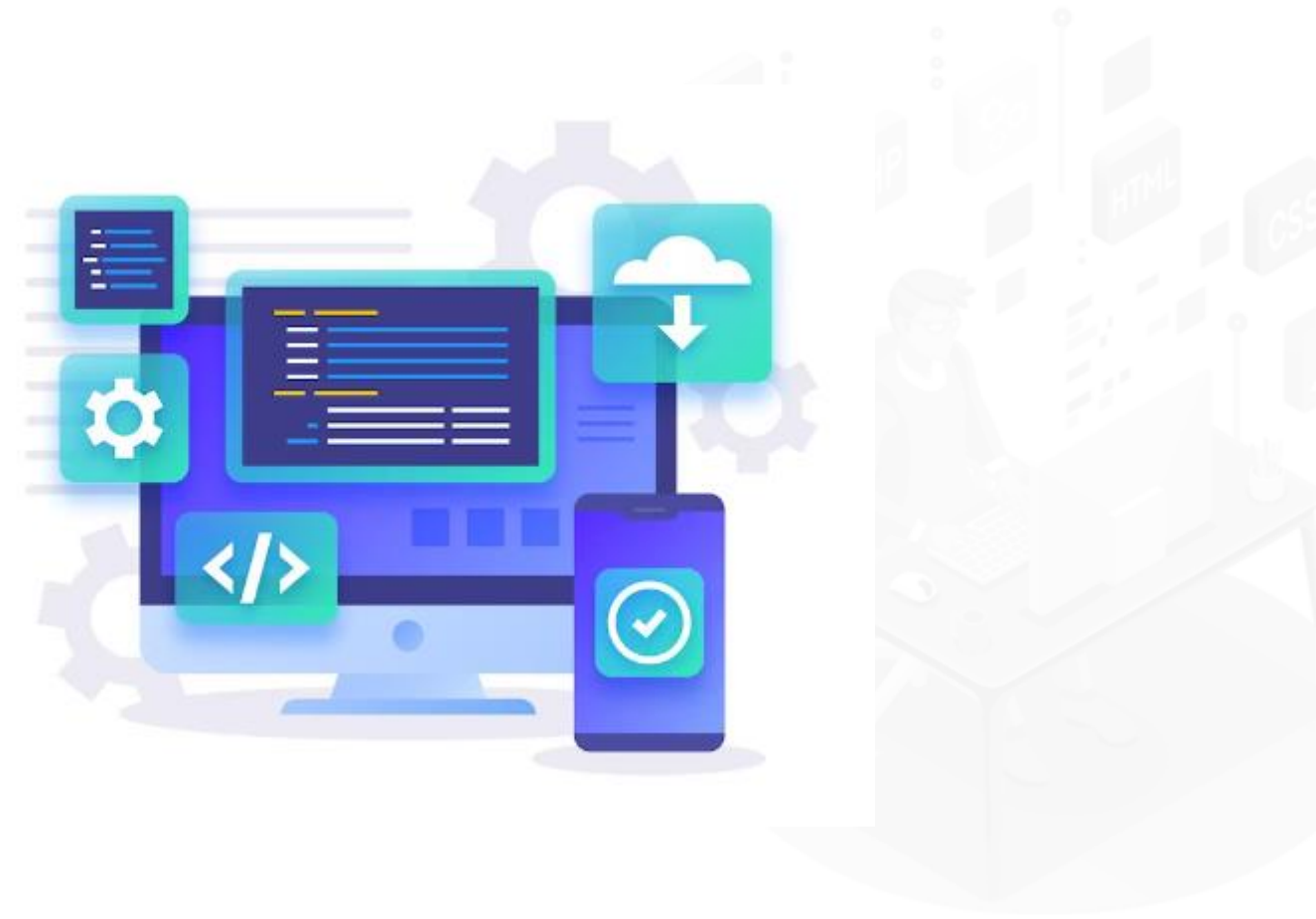


Installing BitBucket

Add the license key.



<https://my.atlassian.com/>



Installing BitBucket

Create an administrative account on the BitBucket server, and the installation is done.



Start using the BitBucket and access it using:
`http://<computer_name_or_IP_address>:<port>`



Configuring Git Account with BitBucket



Problem Statement:

Configure Git account with BitBucket

ASSISTED PRACTICE

Assisted Practice: Guidelines

Steps to configure Git account with BitBucket are:

1. Create a repository
2. Clone the repository



Key Takeaways

- 👁 The PATH contains a default set of directories that are included when a command is executed from the command line.
- 👁 BitBucket is a source code repository in Git and helps in code management.



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Thank You