

**1. Write code for a simple user registration form for an event.****PROGRAM: -**

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
  <style>
    form {
      width: 400px;
    }
    input {
      width: 100%;
      padding: 10px;
      margin-bottom: 10px;
      border: 1px solid #ccc;
      border-radius: 4px;
      box-sizing: border-box;
    }
    button {
      background-color: #4CAF50;
      color: white;
      padding: 12px 20px;
      border: none;
      border-radius: 4px;
      cursor: pointer;
    }
  </style>
</head>
<body>
  <form>
    <h2>Registration Form</h2>
    <label for="name">Name</label>
    <input type="text" id="name" name="name" placeholder="Enter your name" required>
    <label for="email">Email</label>
    <input type="email" id="email" name="email" placeholder="Enter your email" required>
    <label for="password">Password</label>
    <input type="password" id="password" name="password" placeholder="Enter your
password" required>
    <button type="submit">Submit</button>
  </form>
</body>
</html>
```

**OUTPUT: -**

# Registration Form

Name

Email

Password

Submit

## 2. Explore Git and GitHub commands.

```
bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop (master)
$ mkdir reg

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop (master)
$ cd reg

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git init
Initialized empty Git repository in C:/Users/bhage/Desktop/reg/.git/

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git config --global user.name Bhageerath2

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git config --global user.email gbhageerathreddy_csm206621@mgit.ac.in
```

```
bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        main.html

nothing added to commit but untracked files present (use "git add" to track)

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git add main.html

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   main.html

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git commit -a -m "added main.html"
[master (root-commit) 88f7d38] added main.html
 1 file changed, 50 insertions(+)
 create mode 100644 main.html

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git status
On branch master
nothing to commit, working tree clean

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ ls
main.html
```

```
bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git log
commit 88f7d38520188f81fb7cb43864740ac4f37d31a2 (HEAD -> master)
Author: Bhageerath2 <gbhageerathreddy_csm206621@mgit.ac.in>
Date:   Wed May 3 21:39:50 2023 +0530

    added main.html
```

### 3. Practice Source code management on GitHub. Experiment with the source code written in exercise 1.

The screenshot shows the GitHub repository page for 'Bhageerath2 / registrationform'. The repository is public. At the top, there are buttons for 'Pin', 'Unwatch' (1), 'Fork' (0), and 'Star' (0). Below these are tabs for 'Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. The main content area has two cards: 'Set up GitHub Copilot' and 'Invite collaborators'. Below these is a 'Quick setup' section with a 'Set up in Desktop' button, an 'or' separator, and 'HTTPS' and 'SSH' buttons. A text box contains the URL 'https://github.com/Bhageerath2/registrationform.git'. Below this is a section for creating a new repository on the command line, with a code block containing the following commands:

```
echo "# registrationform" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/Bhageerath2/registrationform.git
git push -u origin main
```

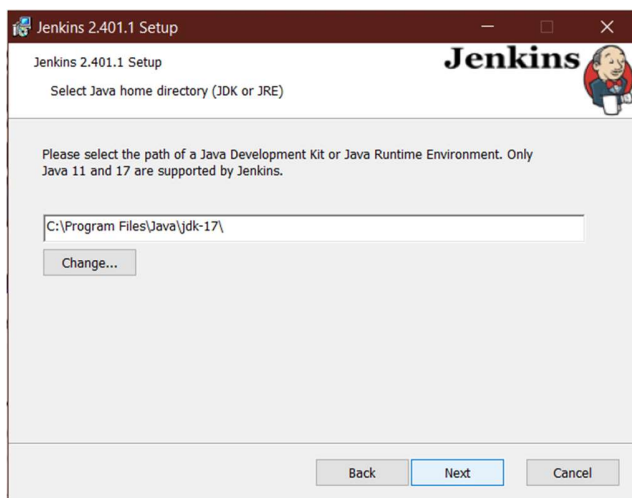
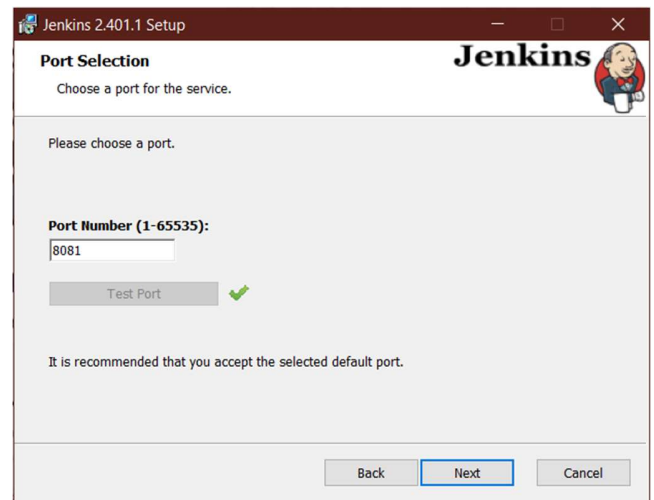
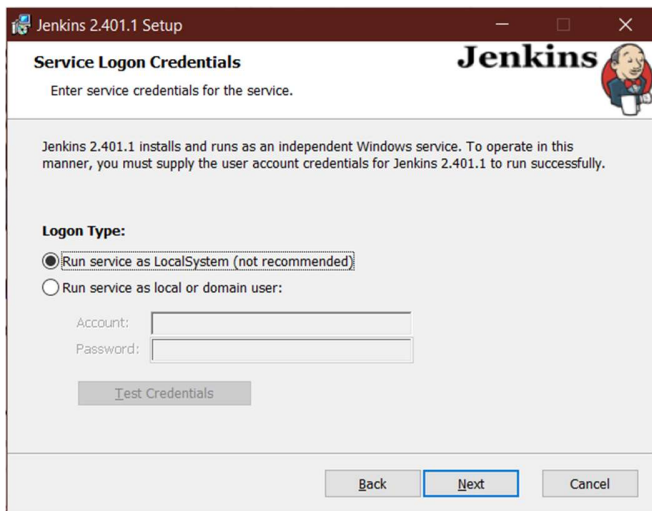
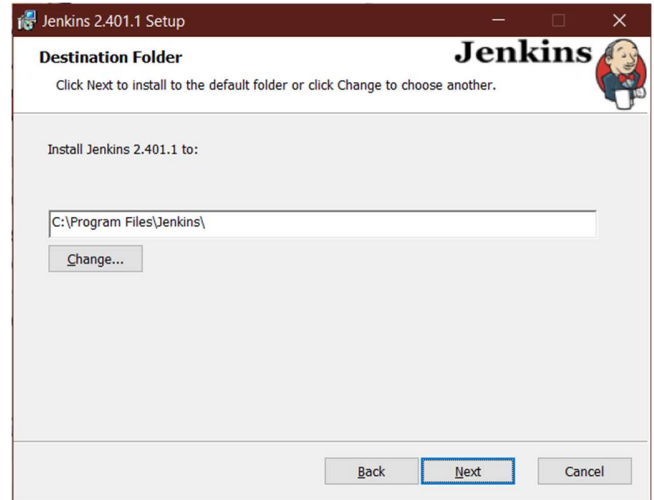
```
bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git remote add origin https://github.com/Bhageerath2/registrationform.git

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (master)
$ git branch -M main

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 695 bytes | 695.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Bhageerath2/registrationform.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

bhage@DESKTOP-FQ854C4 MINGW64 ~/Desktop/reg (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
```

**4. Jenkins installation and setup, explore the environment.**



Getting Started

# Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

```
C:\ProgramData\Jenkins\.jenkins\secrets\initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password

Continue

Getting Started

# Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

### Install suggested plugins

Install plugins the Jenkins community finds most useful.

### Select plugins to install

Select and install plugins most suitable for your needs.

Getting Started

# Getting Started

<input checked="" type="checkbox"/> Folders	<input type="checkbox"/> OWASP Markup Formatter	<input type="checkbox"/> Build Timeout	<input type="checkbox"/> Credentials Binding	** Icons API
<input type="checkbox"/> Timestamp	<input type="checkbox"/> Workspace Cleanup	<input type="checkbox"/> Ant	<input type="checkbox"/> Gradle	** bouncycastle API
<input type="checkbox"/> Pipeline	<input type="checkbox"/> GitHub Branch Source	<input type="checkbox"/> Pipeline: GitHub Groovy Libraries	<input type="checkbox"/> Pipeline: Stage View	** Instance Identity
<input type="checkbox"/> Git	<input type="checkbox"/> SSH Build Agents	<input type="radio"/> Matrix Authorization Strategy	<input type="checkbox"/> PAM Authentication	** JavaBeans Activation Framework (JAF) API
<input type="checkbox"/> LDAP	<input type="checkbox"/> Email Extension	<input type="checkbox"/> Mailer		** JavaMail API
				** Mina SSHD API :: Common

\*\* - required dependency

Jenkins 2.401.1

## Create First Admin User

Username

bhagee

Password

\*\*\*\*\*

Confirm password

\*\*\*\*\*

Full name

bhageerath

### Getting Started

## Instance Configuration

Jenkins URL:

http://localhost:8081/

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the `BUILD_URL` environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.401.1

Not now

Save and Finish


The screenshot shows the Jenkins dashboard in a web browser. The browser's address bar displays 'localhost:8081'. The Jenkins header includes the logo, a search bar with the text 'Search (CTRL+K)', and a user profile for 'bhageerath' with a 'log out' button. The left sidebar contains a 'Dashboard' link and a list of navigation items: 'New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. Below these are two expandable sections: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing two 'Idle' executors). The main content area features a 'Welcome to Jenkins!' message, a brief description of the page's purpose, and a 'Start building your software project' section with a 'Create a job' button. Below this is a 'Set up a distributed build' section with three buttons: 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds'.


**5. Jenkins installation and setup, explore the environment.**


**Enter an item name**


regform

\* Required field

**Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

**Pipeline**  
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

**Multi-configuration project**  
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

**Folder**  
A container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

OK

Dashboard &gt; regform &gt; Configuration

**Configure**

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

**General**Enabled 

## Description

sample form

[Plain text] [Preview](#)☐ Discard old builds ?☒ GitHub project

Project url ?

<https://github.com/Bhageerath2/registrationform.git>

Advanced ▾

☐ This project is parameterized ?☐ Throttle builds ?

Save

Apply



Dashboard > regform > #1

Status

Changes

Console Output

Edit Build Information

Delete build '#1'

Git Build Data

Build #1 (Jun 15, 2023, 12:34:58 PM)

Keep this build forever

Add description

Started 39 sec ago

Took 6 sec

No changes.

Started by user bhageerath

Revision: 88f7d38520188f81fb7cb43864740ac4f37d31a2

Repository: <https://github.com/Bhageerath2/registrationform.git>

refs/remotes/origin/main

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#1'

Git Build Data

Started by user bhageerath

Running as SYSTEM

Building in workspace `C:\ProgramData\Jenkins\jenkins\workspace\regform`

The recommended git tool is: NONE

No credentials specified

Cloning the remote git repository

Cloning repository <https://github.com/Bhageerath2/registrationform.git>

> git.exe init C:\ProgramData\Jenkins\jenkins\workspace\regform # timeout=10

Fetching upstream changes from <https://github.com/Bhageerath2/registrationform.git>

> git.exe --version # timeout=10

> git --version # 'git version 2.39.2.windows.1'

> git.exe fetch --tags --force --progress -- <https://github.com/Bhageerath2/registrationform.git>

regform #1 Console (plain)

regform #1 Console (raw)

index of C:\ProgramData\Jenkins\jenkins\workspace\regform\

Index of C:\ProgramData\Jenkins\jenkins\workspace\regform\

[parent directory]

Name	Size	Date modified
<a href="#">.git/</a>		6/15/23, 12:35:00 PM
<a href="#">main.html</a>	1.3 kB	6/15/23, 12:35:00 PM

regform #1 Console (plain)

regform #1 Console (raw)

C:\ProgramData\jenkins\jenkins\workspace\regform\main.html

Registration Form

Name

Enter your name

Email

Enter your email

Password

Enter your password

Submit

The screenshot shows the Jenkins interface for Build #2 of the 'regform' job. The build status is 'Success' (green checkmark) and it was completed on Jun 15, 2023, at 12:43:02 PM. The build log shows a single change: '1. edited main.html (commit: 9586127) (details / githubweb)'. The build was started by user 'bhageerath' and the revision is '95861274c028d45e26dce6fde826b6d8d1b14cc7'. The repository is 'https://github.com/Bhageerath2/registrationform.git'. A 'Commit changes' dialog box is open in the foreground, showing the commit message 'edited main.html' and the option to 'Commit directly to the main branch' selected. The background shows the GitHub repository page for 'registrationform' with a file editor for 'main.html'.

Dashboard > regform > #2

Status

Build #2 (Jun 15, 2023, 12:43:02 PM)

Keep this build forever

Started 10 sec ago  
Took 2.6 sec

Add description

Changes

1. edited main.html (commit: 9586127) (details / githubweb)

Started by user bhageerath

Revision: 95861274c028d45e26dce6fde826b6d8d1b14cc7  
Repository: https://github.com/Bhageerath2/registrationform.git

refs/remotes/origin/main

Commit changes

Commit message  
edited main.html

Extended description  
Add an optional extended description...

☒ Commit directly to the main branch  
☐ Create a new branch for this commit and start a pull request  
[Learn more about pull requests](#)

Cancel Commit changes

File | C:/ProgramData/Jenkins/jenkins/workspace/regform/main.html

### Edited Registration Form

Name

Email

Password

**6. Explore Docker commands for content management.**

**Docker pull:** Pull an image or a repository from a registry.

```
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:c2e23624975516c7e27b1b25be3682a8c6c4c0cea011b791ce98aa423b5040a0
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
```

**Docker run:** Run a command in a new container.

```
➔ ~ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
```

**Docker images:** List images.

```
➔ ~ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	latest	eb4a57159180	7 days ago	187MB
hello-world	latest	9c7a54a9a43c	6 weeks ago	13.3kB
ubuntu	latest	08d22c0ceb15	3 months ago	77.8MB
hello-world	<none>	feb5d9fea6a5	21 months ago	13.3kB

**Docker ps:** List containers.

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
ba63b93f2c1a	nginx	"/docker-entrypoint..."	19 seconds ago	Up 17 seconds	80/tcp	heuristic_swirles