

Aim: Write code for a simple user registration form of an event

regform.html

```
<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta

      http-equiv="X-UA-Compatible"

      content="IE=edge"

    />

    <meta

      name="viewport"

      content="width=device-width, initial-scale=1.0"

    />

    <link

      rel="stylesheet"

      href="styles.css"

    />

    <title>Registration form</title>

  </head>

  <body>

    <div class="form-container">

      <h1>Registration form!!</h1>
```

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

```
<form action="submit.html">

  <input

    type="text"

    placeholder="Enter your name"

    pattern="\w*"

  />

  <input

    type="email"

    placeholder="Enter your email"

  />

  <input

    type="password"

    placeholder="Enter your password"

  />

  <input

    type="password"

    placeholder="Confirm password"

  />

  <div class="consent">

    <input type="checkbox" />

    I agree with the terms and conditions

  </div>

  <button type="submit">Register</button>
```

Roll No. 20261A66

MGIT

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

```
</form>

</div>

</body>

</html>
```

styles.css

```
* {

  margin: 0;

  box-sizing: border-box;

}


.form-container {

  width: 60%;

  margin: 0 auto;

  margin-top: 2rem;

  padding: 2rem;

  border: 2px solid dodgerblue;

  border-radius: 6px;

}


.form-container > h1 {

  margin-bottom: 1rem;
```

Roll No. 20261A66

MGIT

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

```
}

form {

  display: flex;

  flex-direction: column;

  gap: 1rem;

}

input[type="text"],
input[type="email"],
input[type="password"] {

  padding: 0.8rem 0.6rem;

  border-radius: 6px;

  border: 1px solid dodgerblue;

  box-shadow: 0 2px dodgerblue;

  outline: none;

}

input[type="text"]:focus {

  border: 1px solid dodgerblue;

  box-shadow: 0 2px dodgerblue;

}
```

Roll No. 20261A66

MGIT

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

```
form > button {  
  
  padding: 0.8rem;  
  
  color: white;  
  
  background-color: rgb(30, 144, 255);  
  
  border: none;  
  
  border-radius: 4px;  
  
}  
  
form > button:hover {  
  
  background-color: rgba(30, 144, 255, 0.8);  
  
  cursor: pointer;  
  
}  
  
body > h1 {  
  
  position: fixed;  
  
  top: 50%;  
  
  left: 50%;  
  
  transform: translate(-50%, -50%);  
  
}
```

Roll No. 20261A66

MGIT

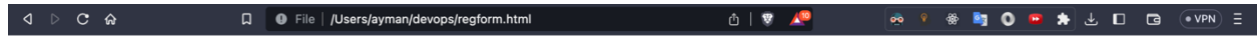
Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

Output:



Registration form!!

☐ I agree with the terms and conditions

Register

Roll No. _20261A66_____

MGIT

Aim: Exploring Git and Github Commands

Checking git version

```
ayman@Aymans-MacBook-Air devops % git --version  
git version 2.32.0
```

Initializing the repository

This creates a .git file which tracks your code changes

```
ayman@Aymans-MacBook-Air devops % git init  
Initialized empty Git repository in /Users/ayman/devops/.git/
```

Putting meta information

Meta information must only be entered once and will be used later for interacting with the github repository.

```
ayman@Aymans-MacBook-Air devops % git config --global user.name "ayman"  
ayman@Aymans-MacBook-Air devops % git config --global user.email "aymanshaik1015@gmail.com"
```

Checking the status of files

```
ayman@Aymans-MacBook-Air devops % git status  
On branch main  
  
No commits yet  
  
Untracked files:  
  (use "git add <file>..." to include in what will be committed)  
    regform.html  
    styles.css  
  
nothing added to commit but untracked files present (use "git add" to track)
```

Adding the files

```
[ayman@Aymans-MacBook-Air devops % git add .  
[ayman@Aymans-MacBook-Air devops % git status  
On branch main  
  
No commits yet  
  
Changes to be committed:  
  (use "git rm --cached <file>..." to unstage)  
    new file:   regform.html  
    new file:   styles.css
```

Committing the files with a message


```
[ayman@Aymans-MacBook-Air devops % git commit -m "Initial commit"  
[main (root-commit) 3a185f6] Initial commit  
2 files changed, 106 insertions(+)  
create mode 100644 regform.html  
create mode 100644 styles.css
```


Create the repository on github

Create a new repository

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

Owner *

 Nesopie ▾

Repository name *

/ regform

✓ regform is available.

Great repository names are short and memorable. Need inspiration? How about **expert-enigma**?

Description (optional)

☒  **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.

Initialize this repository with:

☐ **Add a README file**

This is where you can write a long description for your project. [Learn more about READMEs](#).

Add .gitignore

.gitignore template: **None** ▾

Choose which files not to track from a list of templates. [Learn more about ignoring files](#).

Choose a license

License: **None** ▾

A license tells others what they can and can't do with your code. [Learn more about licenses](#).

 You are creating a public repository in your personal account.

Create repository

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

Push the repository to github

First the remote is added using the URL of the repository

```
ayman@Aymans-MacBook-Air devops % git remote add origin git@github.com:Nesopie/regform.git
git branch -M main
git push -u origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 1.08 KiB | 1.08 MiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:Nesopie/regform.git
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
```

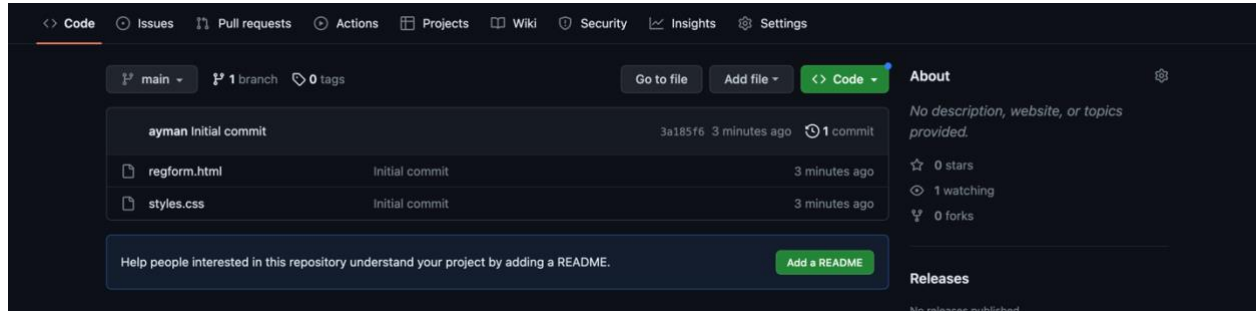
Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

Output:



Roll No. 20261A66

MGIT

Aim: Practice Source code management on GitHub. Experiment with the source code written in exercise 1.

Create a new branch for editing

```
[ayman@Aymans-MacBook-Air devops % git branch change_title
```

Switch to that branch which is: change_title

```
[ayman@Aymans-MacBook-Air devops % git switch change_title  
Switched to branch 'change_title'
```

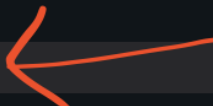
Make changes to the html file

Before:

```
19      <body>  
20          <div class="form-container">  
21              <h1>Registration form!!</h1> ←  
22              <form action="submit.html">  
23                  <input  
24                      type="text"  
25                      placeholder="Enter your name"
```

After

```
19      <body>
20      <div class="form-container">
21      <h1>Registration form!</h1>
22      <form action="submit.html">
23      <input
24      type="text"
25      placeholder="Enter your name"
```



We can see the changes using git diff

```
[ayman@Aymans-MacBook-Air devops % git diff
diff --git a/regform.html b/regform.html
index 702eee9..31e292c 100644
--- a/regform.html
+++ b/regform.html
@@ -18,7 +18,7 @@
     </head>
     <body>
         <div class="form-container">
-            <h1>Registration form!!</h1>
+            <h1>Registration form!</h1>
         <form action="submit.html">
             <input
                 type="text"
```

Track and commit the changes

```
[ayman@Aymans-MacBook-Air devops % git add .
[ayman@Aymans-MacBook-Air devops % git commit -m "Changed the title"
[change_title c38116b] Changed the title
1 file changed, 1 insertion(+), 1 deletion(-)
```

Switch to main

```
[ayman@Aymans-MacBook-Air devops % git switch main  
Switched to branch 'main'  
Your branch is up to date with 'origin/main'.
```

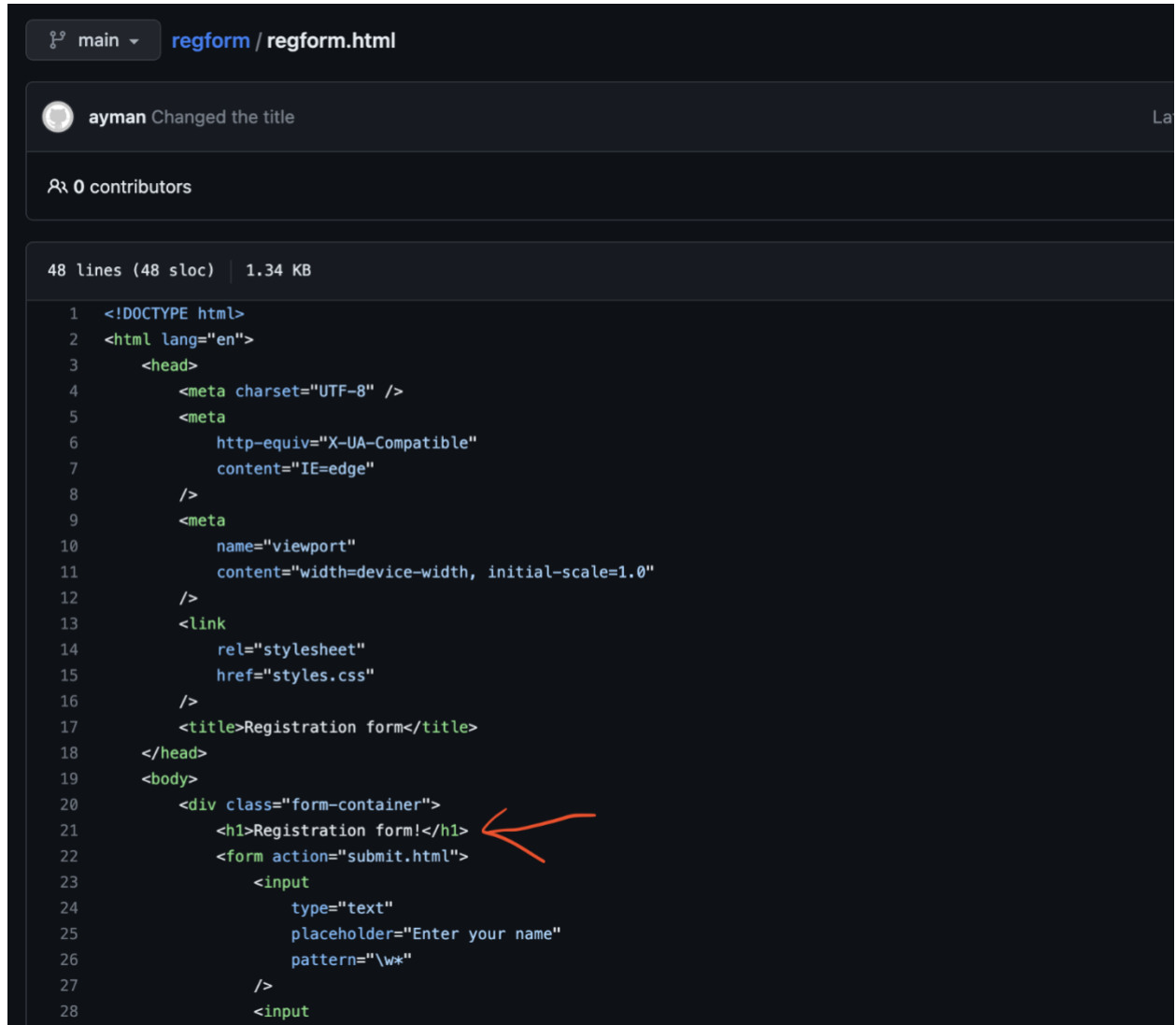
Merge the change_title branch with the main branch

```
[ayman@Aymans-MacBook-Air devops % git merge change_title  
Updating 3a185f6..c38116b  
Fast-forward  
  regform.html | 2 +-  
  1 file changed, 1 insertion(+), 1 deletion(-)
```

Push the repository to github

```
[ayman@Aymans-MacBook-Air devops % git push origin main  
Enumerating objects: 5, done.  
Counting objects: 100% (5/5), done.  
Delta compression using up to 8 threads  
Compressing objects: 100% (3/3), done.  
Writing objects: 100% (3/3), 315 bytes | 315.00 KiB/s, done.  
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0  
remote: Resolving deltas: 100% (1/1), completed with 1 local object.  
To github.com:Nesopie/regform.git  
  3a185f6..c38116b  main -> main
```

Output:



The screenshot shows a GitHub repository for a file named `regform / regform.html`. The repository is owned by `ayman` and has 0 contributors. The file is 48 lines (48 sloc) and 1.34 KB in size. The code is an HTML document for a registration form. It includes a DOCTYPE declaration, a meta charset of UTF-8, a meta http-equiv of X-UA-Compatible with content IE=edge, a meta viewport with content width=device-width, initial-scale=1.0, and a link to a stylesheet named styles.css. The title of the document is "Registration form". The body contains a div with class "form-container" which includes an h1 "Registration form!", a form with action "submit.html", and a text input field with type "text", placeholder "Enter your name", and a pattern of "\w*". A red arrow points to the `<h1>Registration form!</h1>` line.

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8" />
5     <meta
6       http-equiv="X-UA-Compatible"
7       content="IE=edge"
8     />
9     <meta
10      name="viewport"
11      content="width=device-width, initial-scale=1.0"
12    />
13    <link
14      rel="stylesheet"
15      href="styles.css"
16    />
17    <title>Registration form</title>
18  </head>
19  <body>
20    <div class="form-container">
21      <h1>Registration form!</h1>
22      <form action="submit.html">
23        <input
24          type="text"
25          placeholder="Enter your name"
26          pattern="\w*"
27        />
28      <input
```

Aim: Install Jenkins and set it up.

First install JDK 11 on your machine. The command for install openjdk-11 is given below:

```
ayman@Aymans-MacBook-Air ~ % brew install openjdk@11
```

Switch to version 11 in case you have other JDKs installed and check the current openjdk version.

```
ayman@Aymans-MacBook-Air ~ % export JAVA_HOME=`/usr/libexec/java_home -v 11.0`  
ayman@Aymans-MacBook-Air ~ % java -version  
openjdk version "11.0.19" 2023-04-18  
OpenJDK Runtime Environment Homebrew (build 11.0.19+0)  
OpenJDK 64-Bit Server VM Homebrew (build 11.0.19+0, mixed mode)  
ayman@Aymans-MacBook-Air ~ %
```

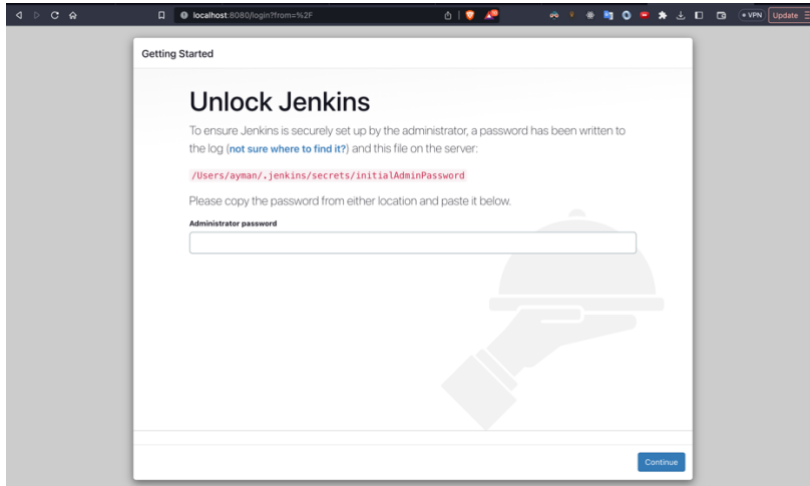
Install Jenkins using the following command:

```
ayman@Aymans-MacBook-Air ~ % brew install jenkins-lts
```

Start Jenkins server:

```
ayman@Aymans-MacBook-Air ~ % brew services start jenkins-lts  
==> Successfully started `jenkins-lts` (label: homebrew.mxcl.jenkins-lts)  
ayman@Aymans-MacBook-Air ~ %
```

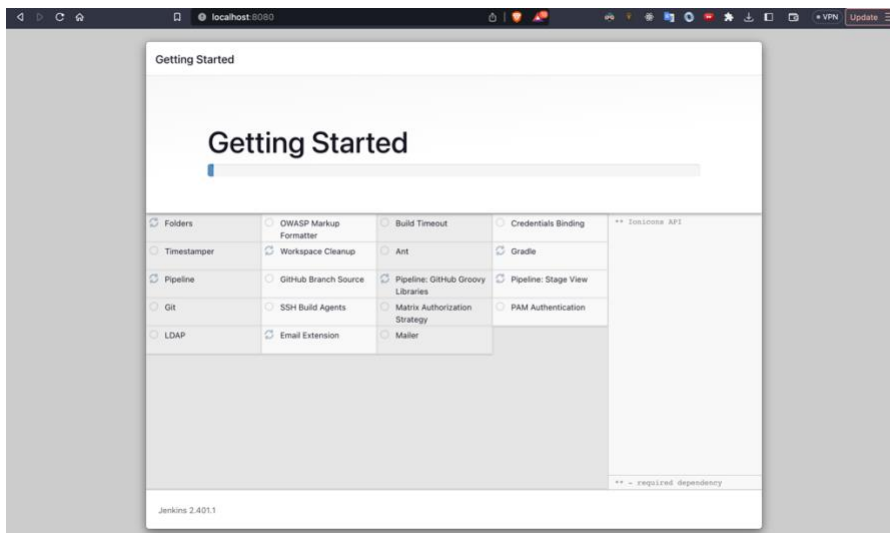

Go to port 8080, it should look like below.



Get the password from the location mentioned on the webpage and use it to unlock jenkins

```
ayman@Aymans-MacBook-Air ~ % cat /Users/ayman/.jenkins/secrets/initialAdminPassword  
f26fc149e0754386b2799b04383677eb
```

Install all the suggested plugins



After installing the plugins you will be redirected and will have to create an account

Create an account!

If you already have a Jenkins account, [please sign in.](#)

Username - "" is prohibited as a username for security reasons.

Full name - "" is prohibited as a full name for security reasons.

Email - Invalid e-mail address

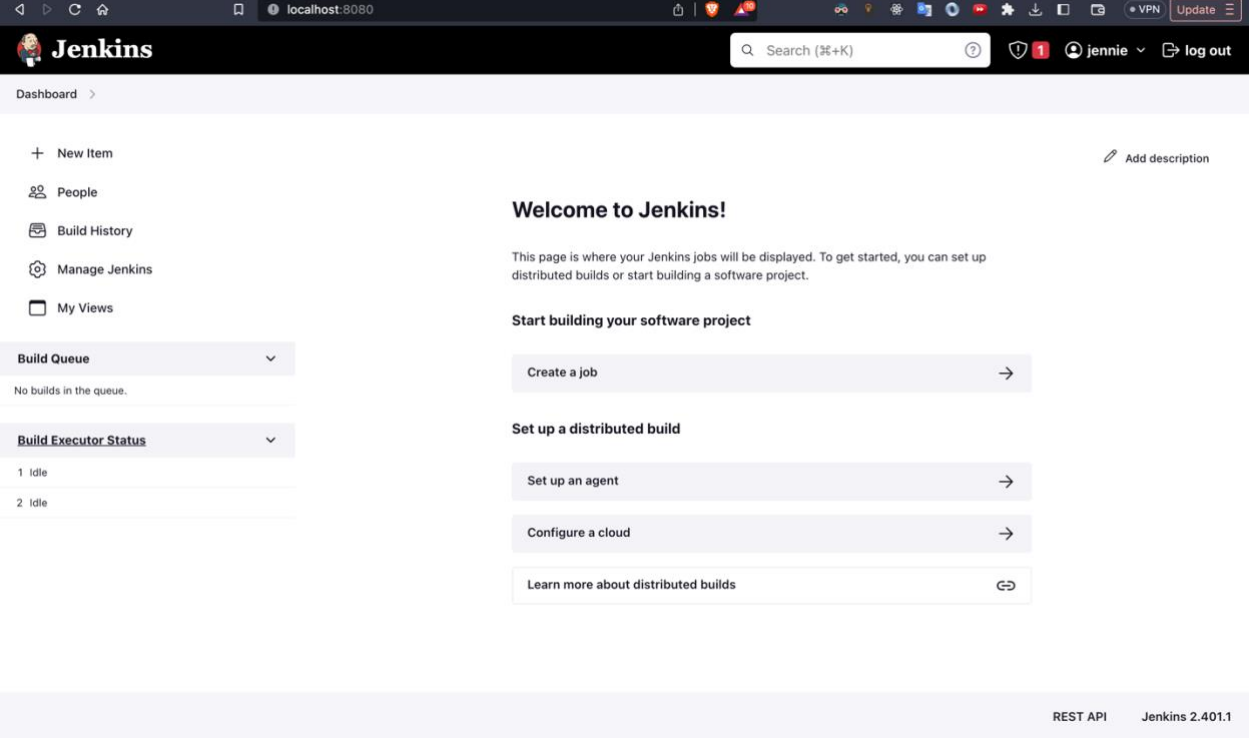
Password - Password is required

☐ Show

A strong password is a long password that's unique for every site. Try using a phrase with 5-6 words for the best security.

Create account

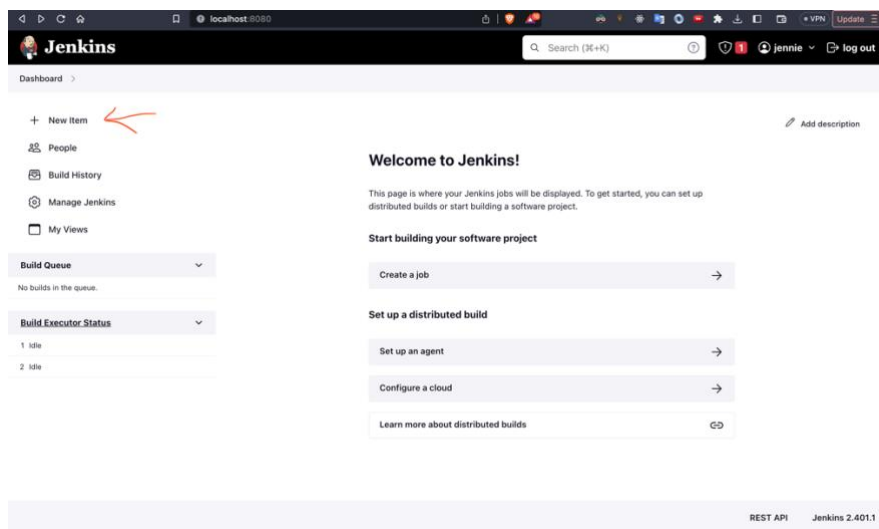
Output:



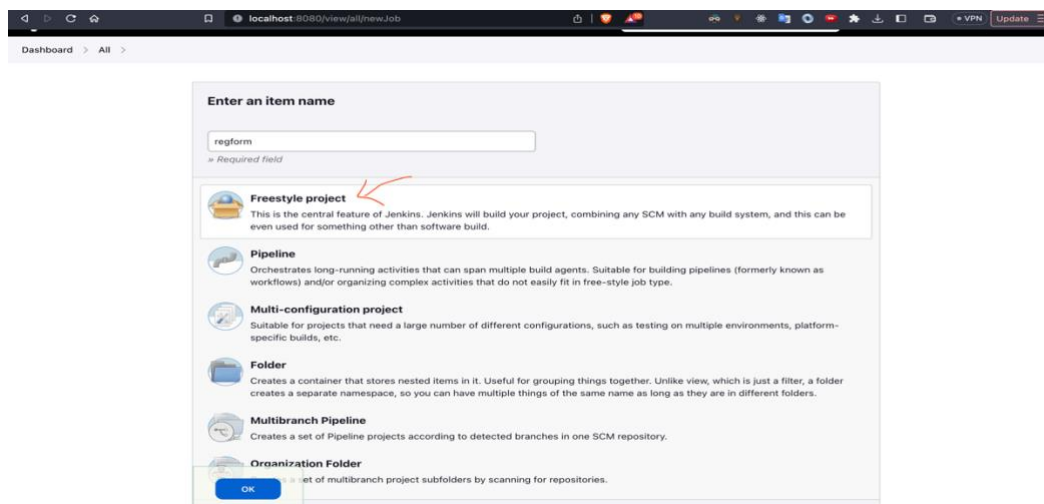
The screenshot displays the Jenkins web interface in a browser window. The address bar shows 'localhost:8080'. The Jenkins logo is in the top left, and a search bar is in the top right. The left sidebar contains navigation links: 'New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. The main content area has a 'Welcome to Jenkins!' message, explaining that this is where jobs are displayed and providing instructions on how to get started. Below the welcome message, there are three sections: 'Start building your software project' with a 'Create a job' button; 'Set up a distributed build' with buttons for 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds'; and a 'Build Queue' section showing 'No builds in the queue.' and a 'Build Executor Status' section showing two idle executors. The bottom right corner of the page indicates 'REST API' and 'Jenkins 2.401.1'.

Aim: To demonstrate continuous integration and development using Jenkins

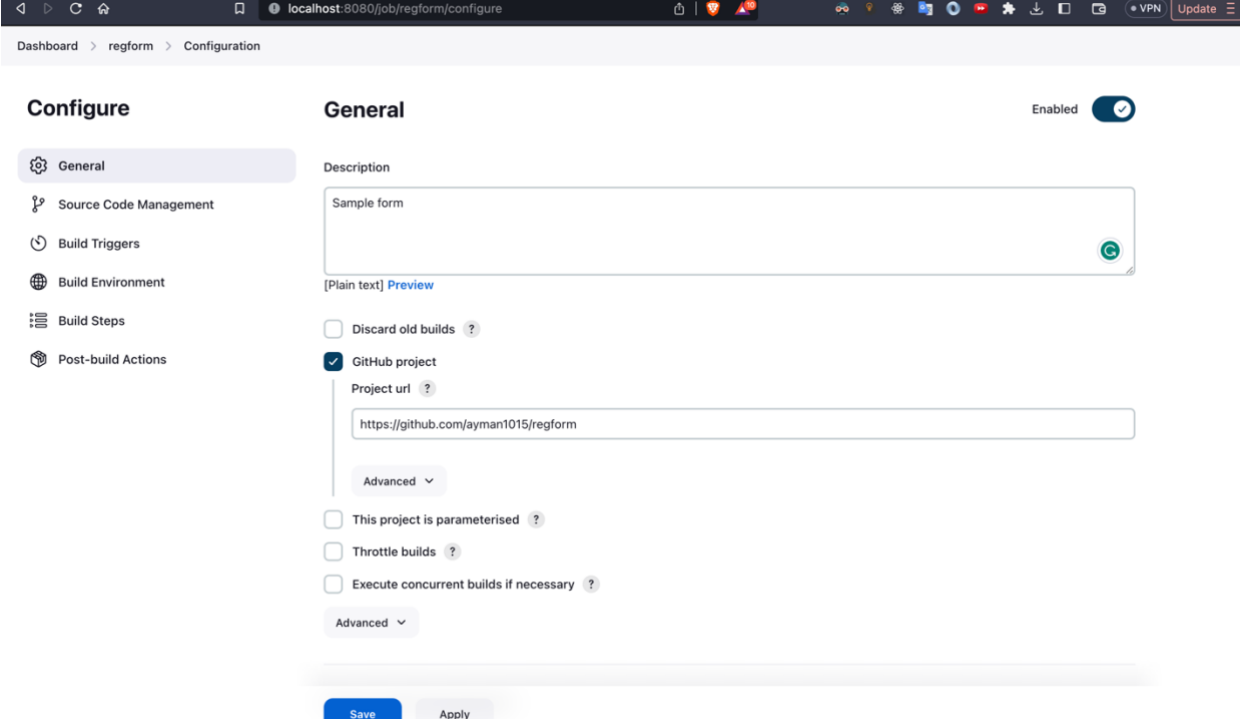
Create a new item as shown below:



Enter the item name, select freestyle project and click on “OK”.



Enter the description, select GitHub project and enter the project url



The screenshot shows the Jenkins Configuration page for a job named 'regform'. The 'General' tab is selected in the left sidebar. The 'General' section is titled 'General' and has an 'Enabled' toggle switch. The 'Description' field contains 'Sample form'. Below it, there is a 'Discard old builds' checkbox (unchecked) and a 'GitHub project' checkbox (checked). The 'Project url' field contains 'https://github.com/ayman1015/regform'. There are also checkboxes for 'This project is parameterised', 'Throttle builds', and 'Execute concurrent builds if necessary', all of which are unchecked. At the bottom, there are 'Save' and 'Apply' buttons.

Change the settings so that Jenkins polls every minute

Build Triggers

☐ Trigger builds remotely (e.g., from scripts) ?

☐ Build after other projects are built ?

☒ Build periodically ?

Schedule ?

⚠ Do you really mean "every minute" when you say "*****"? Perhaps you meant "H * * * *" to poll once per hour

Would last have run at Wednesday, 21 June 2023 at 18:46:23 India Standard Time; would next run at Wednesday, 21 June 2023 at 18:46:23 India Standard Time.

The result will look like this

The screenshot shows the Jenkins web interface. At the top, there's a header with the Jenkins logo, a search bar, and user information (jennie) with a log out button. Below the header, the breadcrumb trail shows 'Dashboard > regform >'. The main content area is divided into two columns. The left column contains a sidebar with various actions: Status (selected), Changes, Workspace, Build Now, Configure, Delete Project, GitHub, and Rename. The right column displays the 'Project regform' details, including a 'Sample form' section and a 'Permalinks' section. Below the sidebar, there's a 'Build History' section with a 'trend' dropdown and a search bar. It shows 'No builds' and links to 'Atom feed for all' and 'Atom feed for failures'. At the bottom right of the main content area, there's a footer with 'REST API' and 'Jenkins 2.401.1'.

✓ Build #1 (21 Jun 2023, 18:49:00)

Keep this build forever

Started 5.3 sec ago

Add description Took 0.93 sec

</> No changes.

Started by timer

In source code management, select git, add the repository url and change the branch to */main

Source Code Management

☐ None

☒ Git ?

Repositories ?

Repository URL ? ✖

Credentials ?

▼

▼

Advanced ▼

Branches to build ?

Branch Specifier (blank for 'any') ? ✖

After building the result is as follows:

Dashboard > regform > #7

Status


</> Changes


Console Output


Edit Build Information


Delete build '#7'


Git Build Data

 **Build #7 (21 Jun 2023, 18:55:01)**

 No changes.

 Started by user [jennie](#)

 **Revision:** 4628bfb05a2db069b3a026f2b670e5a4ab5acf45
Repository: <https://github.com/ayman1015/regform/>
• refs/remotes/origin/main

 Add description

Started 5.8 sec ago
Took **3 sec**

Roll No. 20261A66

MGIT

Dashboard > regform > #7 > Console Output

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#7'

Git Build Data

✓ Console Output

Started by user jennie
Running as SYSTEM
Building in workspace /Users/ayman/.jenkins/workspace/regform
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /Users/ayman/.jenkins/workspace/regform/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/ayman1015/regform/ # timeout=10
Fetching upstream changes from https://github.com/ayman1015/regform/
> git --version # timeout=10
> git --version # 'git version 2.30.1 (Apple Git-130)'
> git fetch --tags --force --progress -- https://github.com/ayman1015/regform/ +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 4628bfb05a2db069b3a026f2b670e5a4ab5acf45 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 4628bfb05a2db069b3a026f2b670e5a4ab5acf45 # timeout=10
Commit message: "Changed the heading"
First time build. Skipping changelog.
Finished: SUCCESS

Go to the url mentioned above and check your build

File | /Users/ayman/.jenkins/workspace/regform/regform.html

Registration form!!

Enter your name

Enter your email

Enter your password

Confirm password

☐ I agree with the terms and conditions

Register

Change the code in the github repository and commit it:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <link rel="stylesheet" href="styles.css"/>
8   <title>Registration form</title>
9 </head>
10 <body>
11   <div class="form-container">
12     <h1>Edited Registration form!!</h1>
13     <form action="submit.html">
14       <input type="text" placeholder="Enter your name" pattern="\w*" />
```

Commit changes

Commit message

Update regform.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

Build the project once more:

Status

</> Changes

Workspace

Build Now

Configure

Delete Project

GitHub

Rename

Project

Sample form

Permalinks

- Last build
- Last success
- Last failure
- Last commit

Build History

trend

Filter builds...

#8

21 Jun 2023, 19:01

#7

21 Jun 2023, 18:55

Atom feed for all

Atom feed for failures

✓ Build #8 (21 Jun 2023, 19:01:10)

Keep this build forever

Add description

Started 24 sec ago

Took 3.4 sec

</> Changes

1. Update regform.html (commit: 4176ea0) (details / githubweb)

Started by user jennie

git

Revision: 4176ea0150082d0a2f4f9c8578763c66793b376b

Repository: <https://github.com/ayman1015/regform/>

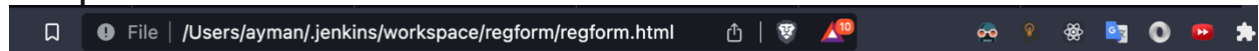
- refs/remotes/origin/main



Console Output

```
Started by user jennie
Running as SYSTEM
Building in workspace /Users/ayman/.jenkins/workspace/regform
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /Users/ayman/.jenkins/workspace/regform/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/ayman1015/regform/ # timeout=10
Fetching upstream changes from https://github.com/ayman1015/regform/
> git --version # timeout=10
> git --version # 'git version 2.30.1 (Apple Git-130)'
> git fetch --tags --force --progress -- https://github.com/ayman1015/regform/ +refs/heads/*:refs/remotes/origin/* #
timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 4176ea0150082d0a2f4f9c8578763c66793b376b (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 4176ea0150082d0a2f4f9c8578763c66793b376b # timeout=10
Commit message: "Update regform.html"
> git rev-list --no-walk 4628bfb05a2db069b3a026f2b670e5a4ab5acf45 # timeout=10
Finished: SUCCESS
```

Output:



Edited Registration form!!

☐ I agree with the terms and conditions

Aim: To explore docker commands for content management

Pull an image from docker hub.

```
ayman@Aymans-MacBook-Air ~ % docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
70f5ac315c5a: Pull complete
Digest: sha256:c2e23624975516c7e27b1b25be3682a8c6c4c0cea011b791ce98aa423b5040a0
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
ayman@Aymans-MacBook-Air ~ %
```

See all images downloaded with docker using the below command

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
hello-world	latest	b038788ddb22	6 weeks ago	9.14kB

Removing a docker image:

```
ayman@Aymans-MacBook-Air ~ % docker rmi b0
Untagged: hello-world:latest
Untagged: hello-world@sha256:c2e23624975516c7e27b1b25be3682a8c6c4c0cea011b791ce98aa423b5040a0
Deleted: sha256:b038788ddb22cb7d6025b411759e4f5abe9910486c8f98534ead97befd77dd7
Deleted: sha256:a7866053acacfebf68912a8916b67d6847c12b51949c6b8a5580c6609c08ae45
ayman@Aymans-MacBook-Air ~ %
```

Running a docker image / creating a docker container:

```
ayman@Aymans-MacBook-Air ~ % 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.
(arm64v8)
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/>

Display all running containers:

```
ayman@Aymans-MacBook-Air ~ % docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
ea9a920f9d65	nginx	"/docker-entrypoint..."	4 seconds ago	Up 4 seconds	80/tcp	nervous_meitner

Stop a running container:

```
ayman@Aymans-MacBook-Air ~ % docker stop ea
```

```
ea
```

```
ayman@Aymans-MacBook-Air ~ % docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
--------------	-------	---------	---------	--------	-------	-------

Removing a stopped container:

```
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS          NAMES
eaaa920f9d65   nginx     "/docker-entrypoint..." About a minute ago Exited (0) About a minute ago   nervous_meitner
bc592c9b05a4   hello-world "/hello"              5 minutes ago   Exited (0) 5 minutes ago   clever_grothendieck

ayman@Aymans-MacBook-Air ~ % docker rm ea
ea
ayman@Aymans-MacBook-Air ~ % docker ps -f "status=exited"

CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS          NAMES
bc592c9b05a4   hello-world "/hello"              6 minutes ago   Exited (0) 6 minutes ago   clever_grothendieck
```

Executing a command within a running container:

```
ayman@Aymans-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS          NAMES
86e49b817d35   nginx     "/docker-entrypoint..." 24 seconds ago Up 24 seconds 80/tcp         stupefied_solomon

ayman@Aymans-MacBook-Air ~ % docker exec -it stupefied_solomon sh
# echo "inside the container"
inside the container
# exit
ayman@Aymans-MacBook-Air ~ %
```

Copy a file from within a docker container to local machine:

```
ayman@Aymans-MacBook-Air ~ % docker exec -it stupefied_solomon sh
[# touch cat.txt
[# exit
ayman@Aymans-MacBook-Air ~ % docker cp stupefied_solomon:/cat.txt .
Successfully copied 1.54kB to /Users/ayman/.
ayman@Aymans-MacBook-Air ~ %
```

Create a new image from a modified container:

```
ayman@Aymans-MacBook-Air ~ % docker commit stupefied_solomon new-nginx:latest
sha256:ad83b17956f18f023d26c13cc6514ef7a06f5ddef8a5f459ce1e7f829572b521
ayman@Aymans-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS          NAMES
86e49b817d35   nginx     "/docker-entrypoint..." 6 minutes ago   Up 6 minutes 80/tcp         stupefied_solomon

ayman@Aymans-MacBook-Air ~ % docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
new-nginx     latest   ad83b17956f1   6 seconds ago  192MB
nginx         latest   2d21d843073b   7 days ago    192MB
hello-world   latest   b038788ddb22   6 weeks ago    9.14kB
```

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

Save an image to a tar file and load it from a tar file:

```
[ayman@Aymans-MacBook-Air devops % docker save new-nginx -o new_nginx.tar  
[ayman@Aymans-MacBook-Air devops % docker load -i new_nginx.tar  
Loaded image: new-nginx:latest
```

Roll No. 20261A66

MGIT

Aim: Develop a simple containerized application using docker

Create a Dockerfile

```
[ayman@Ayman-MacBook-Air project % touch Dockerfile
```

Edit the Dockerfile to look as follows:

```
1 FROM nginx:alpine
2
3 COPY index.html /usr/share/nginx/html/
4 COPY styles.css /usr/share/nginx/html/
5 COPY submit.html /usr/share/nginx/html
6
7 EXPOSE 80
8
9 CMD ["nginx", "-g", "daemon off;"]
```

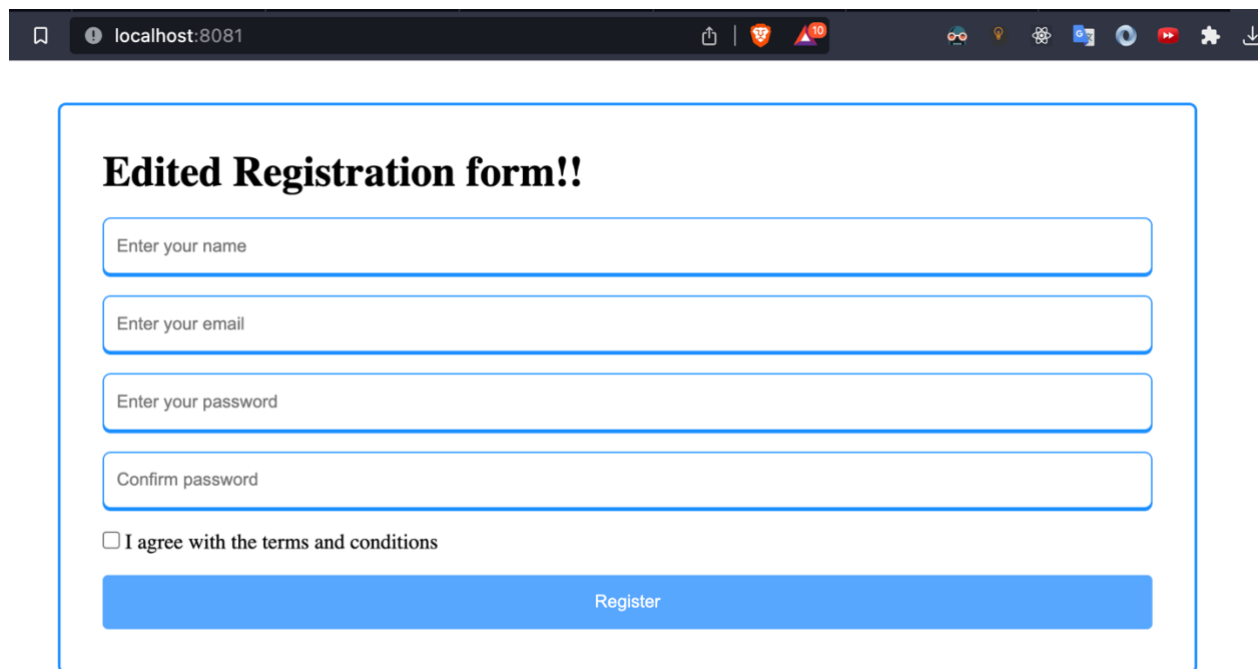
Build the docker image

```
ayman@Ayman-MacBook-Air regform % docker build -t regform:latest .
[+] Building 11.4s (10/10) FINISHED
=> [internal] load .dockerignore 0.0s
=> transferring context: 28 0.0s
=> [internal] load build definition from Dockerfile 0.0s
=> transferring dockerfile: 224B 0.0s
=> [internal] load metadata for docker.io/library/nginx:alpine 6.1s
=> [auth] library/nginx:pull token for registry-1.docker.io 0.0s
=> [1/4] FROM docker.io/library/nginx:alpine@sha256:2d194184b067db3598771b4cf326cfe6ad5051937ba1132b8b7d4b0184e0d0a6 5.1s
=> resolve docker.io/library/nginx:alpine@sha256:2d194184b067db3598771b4cf326cfe6ad5051937ba1132b8b7d4b0184e0d0a6 0.0s
=> sha256:2d194184b067db3598771b4cf326cfe6ad5051937ba1132b8b7d4b0184e0d0a6 1.65kB / 1.65kB 0.0s
=> sha256:e7b9f85644962bdf4c0326f5d46e56ad16d6c111e060e4826054b73fc452788b 1.92MB / 1.92MB 1.4s
=> sha256:e6a8c530945dda8627568f42dda8a15e3cf86f3e3fd52df1c5507d7a080010f1 626B / 626B 1.0s
=> sha256:40199b09f65752fed2a540913a037a7a2c3120bd9d4cf20e7d85caafa66381d8 1.99kB / 1.99kB 0.0s
=> sha256:66bf2c914bf4d0aac4b62f09f9f74ad35898d613024a0f2ec94dca9e79fac6ea 16.71kB / 16.71kB 0.0s
=> sha256:edb6bdbacee93be93e930669f43e2e922c8594676aa342a70e2221361fd1914d 3.26MB / 3.26MB 1.7s
=> sha256:a31273f49e643a2139695da7981a83d9538d2ca4240233e927fc7346e9561bd4 957B / 957B 1.3s
=> sha256:4fbf2e3beac832ec0beb01f066dc3e00462c009affc2b4a8fdee1cec88d780af 365B / 365B 1.6s
=> sha256:467b5f1f71f74c9d74015627b2051d84b4f46bc6d20a6f836c0fd1f4542daf7d 1.21kB / 1.21kB 1.7s
=> sha256:3a6c132398b370728f1a817cb557dd829e9b8a4a780df604b6705ba70ee26bc 1.40kB / 1.40kB 1.8s
=> extracting sha256:edb6bdbacee93be93e930669f43e2e922c8594676aa342a70e2221361fd1914d 0.1s
=> sha256:fca8748d6c5b612c44f7befb8aed1f463545281a6cc58d153e2006d9b0dac0ec 11.15MB / 11.15MB 4.6s
=> extracting sha256:e7b9f85644962bdf4c0326f5d46e56ad16d6c111e060e4826054b73fc452788b 0.2s
=> extracting sha256:e6a8c530945dda8627568f42dda8a15e3cf86f3e3fd52df1c5507d7a080010f1 0.0s
=> extracting sha256:a31273f49e643a2139695da7981a83d9538d2ca4240233e927fc7346e9561bd4 0.0s
=> extracting sha256:4fbf2e3beac832ec0beb01f066dc3e00462c009affc2b4a8fdee1cec88d780af 0.0s
=> extracting sha256:467b5f1f71f74c9d74015627b2051d84b4f46bc6d20a6f836c0fd1f4542daf7d 0.0s
=> extracting sha256:3a6c132398b370728f1a817cb557dd829e9b8a4a780df604b6705ba70ee26bc 0.0s
=> extracting sha256:fca8748d6c5b612c44f7befb8aed1f463545281a6cc58d153e2006d9b0dac0ec 0.3s
=> [internal] load build context 0.0s
=> transferring context: 2.35kB 0.0s
=> [2/4] COPY regform.html /usr/share/nginx/html/ 0.1s
=> [3/4] COPY styles.css /usr/share/nginx/html/ 0.0s
=> [4/4] COPY submit.html /usr/share/nginx/html 0.0s
=> exporting to image 0.0s
=> exporting layers 0.0s
=> writing image sha256:965fd7cdfd71dd8b591340bfb13f8b9189be245789a9d39244079ab06e4ce490 0.0s
=> naming to docker.io/library/regform:latest 0.0s
```


Run the docker image

```
ayman@Aymans-MacBook-Air regform % docker run -p 8081:80 regform
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2023/06/21 14:18:31 [notice] 1#1: using the "epoll" event method
2023/06/21 14:18:31 [notice] 1#1: nginx/1.25.1
2023/06/21 14:18:31 [notice] 1#1: built by gcc 12.2.1 20220924 (Alpine 12.2.1_git20220924-r4)
2023/06/21 14:18:31 [notice] 1#1: OS: Linux 5.15.49-linuxkit-pr
2023/06/21 14:18:31 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2023/06/21 14:18:31 [notice] 1#1: start worker processes
2023/06/21 14:18:31 [notice] 1#1: start worker process 30
2023/06/21 14:18:31 [notice] 1#1: start worker process 31
2023/06/21 14:18:31 [notice] 1#1: start worker process 32
2023/06/21 14:18:31 [notice] 1#1: start worker process 33
```

Output:



localhost:8081

Edited Registration form!!

Enter your name

Enter your email

Enter your password

Confirm password

☐ I agree with the terms and conditions

Register

Laboratory Record Of

Sheet NO. _____

Experiment No. _____

Date _____

Roll No. 20261A66_____

MGIT