



Assignment 2a.

Title - Create version control account on Github, Docker container environment and Angular application.

Problem statement

- 1) Create version control account on Github and using git command to create repository and push your code to github.
- 2) Create Docker container environment INVIDEN or any other.
- 3) Create an Angular application which will do following actions : Register user, Login user, show user data on profile component.

Objectives

Create repository on Github Docker container environment and Angular application.

Theory

Git is a version control system it helps you keep track of code changes and it is used to collaborate on code.

Git commands:-
git --version
git version 2.30.2 windows/

It was created by Linus Torvalds in 2005 and has been maintained by Juno Hamano since then.

It is used for.

- 1) Tracking code changes.
- 2) Tracking who made changes.
- 3) Coding collaboration.

Conclusion

Git and GitHub provide a powerful and flexible platform for version control and collaborative software development. By learning these basic steps, you can start by using Git & GitHub for your own projects and join a global community of developers who are using these tools to build innovative software solutions.

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Assignment No. 2 b.

Problem statement

Create docker container environment (NVIDIA)
docker or any other

Theory

Docker

Docker is a popular containerization platform that enables developers to package their applications and their dependencies into a container.

1)

These containers can be deployed on any system with Docker installed, making it a highly portable and flexible solution for deploying applications.

NVIDIA docker is an extension on the Docker platform that allows developer to run GPU accelerated application inside. Docker containers

Features of Docker

- 1) Docker has the ability to reduce the size of development by providing a smaller footprint of operating system via containers.
- 2) You can deploy Docker containers anywhere on any physical & virtual machines and even on cloud.



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3) since docker containers are pretty lightweight
they are easily scalable.

Conclusion .

using docker containers including NVIDIA Docker
for machine learning and data science
applications can improve portability,
reproducibility, security .

It can also simplify the deployment process and
make it easier to share application with
each other .

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Assignment 2-c.

Title -

Create an Angular application which will do following actions : Register User, Login User, Show User Data on profile components.

Theory .

Angular is a typescript - based free and open source web application framework led by the Angular Team by Google and by a community of individuals and corporations.

1. Angular requires a current, active LTS (long term support) or maintenance LTS version of node.js and NPM.

Install node.js

It will automatically install NPM - node package manager

2. Install angular CLI

npm install -g @angular/cli@latest

To create Angular application, Angular CLI is required.

3. To create new project

Through CLI go to folder of the new project
Give command as -ng new project-name

Procedure .

The project will be created as directory structure

open folders src / app

Modify app.module.ts for form application .



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- open app.component.html

write html code for form (representative code mentioned here, modify for multiple inputs)

- make changes in app.component.ts.

Step 1: Create an angular application using the angular CLI
ng new my-app

Step 2: Create a user service to handle user-related functionality. This service will be responsible for making API calls to your server to register, login and retrieve user data. You can generate a service using the Angular CLI:
ng generate service user

Step 3: Define a user model to represent the user data. The user model will typically contain properties like username, email, password, etc.

Step 4: Create a registration component to allow user to register for an account. This component will have a form that accepts user input and submits it to the user service for processing. The registration component will also handle any error message returned by user service.



Step 5 - Create a login component to display user data. This component will use service to form that accept user input & submits it to the user service for processing. The login component will also handle any error message returned by the user service.

Step 6 - Create a routing module to define the routes for your application. The routing module should include routes for the registration, login & profile components.

Step 7 - Create a navigation bar to allow user to navigate between the different components. The navigation bar should be included in a shared components that can be used across the application.

Step 8 - Update the app module to include the routing module and the user service.

Step 9: Update the app component to include the navigation bar and the router outlet.

Conclusion

In this assignment, we created an angular application that allows user to register, log in and their user data.

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