

Automating Docker Builds

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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Learning Objectives

In this tutorial, we will learn how to



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- Setup and configure GitHub



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In this tutorial, we will learn how to

- Setup and configure GitHub
- Automate Docker builds using GitHub
- Pull and test the built images



System Requirements

To record this tutorial, I am using



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- **Ubuntu Linux OS 22.04**



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To record this tutorial, I am using

- Ubuntu Linux OS 22.04
- Docker 27.0.2



Pre-requisites

To follow this tutorial,



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To follow this tutorial,

- You must have a Docker Hub account



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Pre-requisites

To follow this tutorial,

- You must have a Docker Hub account
- You must have a GitHub account
- For pre-requisite, please visit the Docker series on <https://www.spoken-tutorial.org/>



Code Files

- The files used in this tutorial are provided in the Code files link



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- The files used in this tutorial are provided in the Code files link
- Please download and extract the files



Code Files

- The files used in this tutorial are provided in the Code files link
- Please download and extract the files
- Make a copy and then use them while practicing



Git Setup - Instruction Sheet

- The instructions to set up Git are provided in the Additional Reading section of this tutorial
- Go through them to install Git and create a GitHub repository for the code files



GitHub Actions

- **GitHub Actions is an automation platform**



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- **It helps automate software development workflows within GitHub repositories**



GitHub Actions

- **GitHub Actions is an automation platform**
- **It helps automate software development workflows within GitHub repositories**
- **It runs workflows when code is committed**

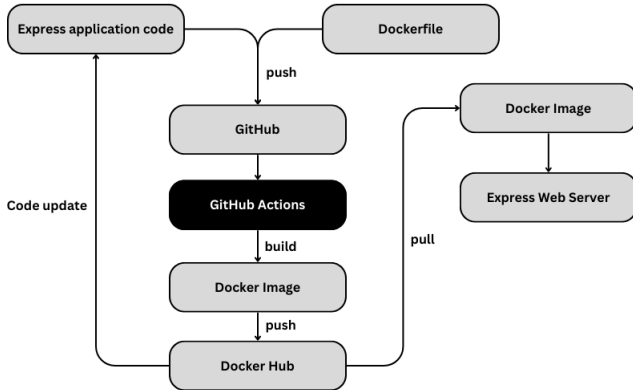


GitHub Actions

- Workflows automatically build and test the code



GitHub Actions Flowchart



Summary

In this tutorial, we have learnt how to

- Setup and configure GitHub
- Automate Docker builds using GitHub
- Pull and test the built images



About the Spoken Tutorial Project

- Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to contact@spoken-tutorial.org



Answers for THIS spoken tutorial

- Questions in THIS Spoken Tutorial
- Please Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer
- You will have to register to ask questions



FOSSEE Forum

- For any general or technical questions on Docker, visit the FOSSEE forum and post your question
<https://forums.fossee.in/>



Acknowledgement

- **Spoken Tutorial Project was established by the Ministry of Education, Government of India**



Thank you

- This is Karthik Chandrasekhar, a FOSSEE Semester Long Intern 2024, IIT Bombay

