

Advanced Docker

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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Learning Objectives

- Write a dockerfile for python automation environment configurations



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- Write a dockerfile for python automation environment configurations
- Build a docker image from the docker file



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- Run containers using the docker image



Learning Objectives

- Write a dockerfile for python automation environment configurations
- Build a docker image from the docker file
- Run containers using the docker image
- Test the docker image to run python automation script



System Requirements

To record this tutorial, I am using



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- **Ubuntu Linux OS 22.04**



System Requirements

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 basic knowledge of using docker commands



Pre-requisites

To follow this tutorial,

- You must have basic knowledge of using docker commands
- For pre-requisite Docker tutorials, please visit <https://www.spoken-tutorial.org/>



Code Files

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



Code Files

- 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



Set up - X11 forwarding

- **To run GUI applications inside a Docker container, you need to set up X11 forwarding**



Set up - X11 forwarding

- **To run GUI applications inside a Docker container, you need to set up X11 forwarding**
- **It runs applications on a remote server and displays them on your local machine**



Features of docker images

- Ensures the script runs consistently across different systems and environments



Features of docker images

- Ensures the script runs consistently across different systems and environments
- Prevents conflicts by isolating the script from the host system



Features of docker images

- Ensures the script runs consistently across different systems and environments
- Prevents conflicts by isolating the script from the host system
- Easily move and run the script on any Docker-compatible platform



Features of docker images

- Packages all dependencies, avoiding manual installations and version conflicts



Features of docker images

- Packages all dependencies, avoiding manual installations and version conflicts
- Containers limit access, reducing potential security risks to the host system



Summary

- Write a dockerfile for python automation environment configurations
- Build a docker image from the docker file
- Run containers using the docker image
- Test the docker image to run python automation script



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 Aditya Kushwaha, a FOSSEE Semester Long Intern 2024, IIT Bombay

