

General instructions

Before proceeding, please fill the “Demographic Information” and “Skills and Experience” sections of the questionnaire linked below. Once you reach the “DF1” section, read the rest of this document.

<https://forms.gle/ZzZ1V2Gx9FuDhy2DA>

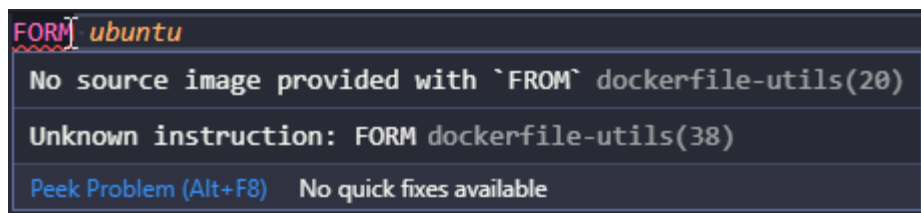
In this experiment you will perform 3 tasks. In each task you must edit a Dockerfile using Visual Studio Code. To help you in these tasks, you’ll have access to a set of extensions which will provide feedback while you edit the Dockerfiles. The combination of Visual Studio Code with these extensions will be referred to as the “environment” in this document and in the questionnaire. The features available in these extensions are described in the next sections of this document.

You have 15 minutes to read and understand the features described in this document. You are allowed to consult this document at any point during the task execution.

Available Features

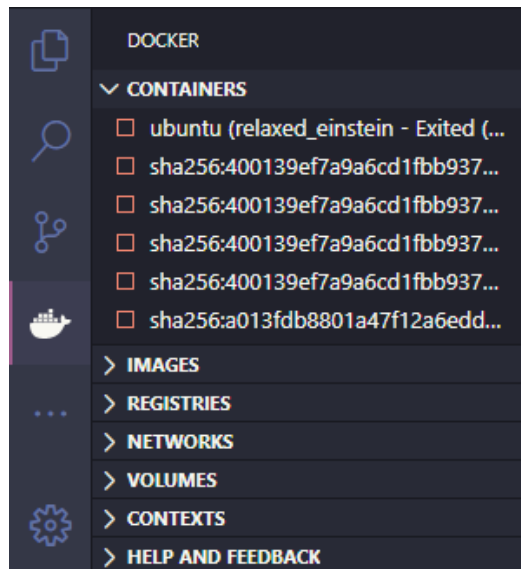
1- Static Analysis Errors

This environment analyses the Dockerfile’s syntax, underlining any syntax errors that it finds.



2- Docker Management

This environment provides a sidebar menu which allows the programmer to perform quick actions related to Docker containers, images, registries, networks, volumes and contexts (e.g. start container, stop container, view container logs, delete image).



Tasks

Global Rules

- In each task, you'll be given a Dockerfile which you must edit until the container has the desired behaviour.
- Each task ends once you notify the experiment observer that you have reached the desired behaviour.
- **You may only edit the Dockerfile.** No other files (such as .py or .js) need to be edited in order to achieve the desired behaviour. However, you are allowed to make temporary changes to the code (e.g. print a variable or comment a line) if you think it may help you diagnose the issue. Note that if you make a temporary change to the code you must restore the code to its original state for the task to be validated.
- You have a maximum of 20 minutes to complete each task.
- Feel free to consult this document at any time.
- All the information that you need to solve the tasks is present in this document. However, feel free to consult any documentation and perform any web searches you may need, at any time, **in the remote computer where you're performing the tasks.**
- If something isn't clear in these instructions or in the descriptions of the tasks themselves please alert the experiment observer immediately.

Instructions

- In the C:/Users/DockerliveTest/Desktop folder, you'll find 3 folders - "DF1", "DF2", "DF3". Each of these folders contains a task.
- Do these 3 tasks in order and fill the respective section of the questionnaire after each task.
- Instructions for each of the tasks are available in the remaining sections of this document.

- At the end of each task please run the following command on a powershell window:
docker-cleanup-script
- You can now read the instructions and start the task “DF1”.

DF1

1. Open Visual Studio Code using the shortcut in the desktop.
2. In Visual Studio Code open the “DF1” folder using the menu “File” -> “Open Folder...”
3. Edit the Dockerfile until all of the following properties are true (Note that you must verify all of these conditions):
 - Container stdout must show: "some data"
 - 'node' process must be running in container
4. Alert the experiment observer once you've met the criteria in point 3.
5. Execute the following command on a powershell window:
docker-cleanup-script
6. Fill the “DF1” section of the questionnaire.
7. Move to the next task.

DF2

1. In Visual Studio Code open the “DF2” folder using the menu “File” -> “Open Folder...”
2. Edit the Dockerfile until all of the following properties are true (Note that you must verify all of these conditions):
 - Container stdout must NOT show: "Error downloading file" nor "Error writing file"
 - Container stdout must show: “Success!”
 - Container must download 9MB-15MB of data
3. Alert the experiment observer once you've met the criteria in point 2.
4. Execute the following command on a powershell window:
docker-cleanup-script
5. Fill the “DF2” section of the questionnaire.
6. Move to the next task.

DF3

1. In Visual Studio Code open the “DF3” folder using the menu “File” -> “Open Folder...”
2. Edit the Dockerfile until all of the following properties are true (Note that you must verify all of these conditions):
 - Container stdout must show: "Listening!"
 - Container stdout must not show: "Could not bind"
 - Container must have a TCP service running on the exposed port 3000
3. Alert the experiment observer once you've met the criteria in point 2.
4. Execute the following command on a powershell window:
docker-cleanup-script
5. Fill the remaining sections of the questionnaire.