



COMSATS University Islamabad

Attock Campus

Program: BS

Fall 2023

Quiz 1

September 26, 2023

TICS

Total Marks: (25)
Time Allowed: (90 minutes)

Quiz No. 1

Task:

Containerize a basic web application using Docker and push the image to Dockerhub.

Instructions:

- Make a simple HTML/PHP website containing your CV along with your information (Registration #, Name). or you can choose a programming language and a web framework/library of your choice instead of PHP. (Hint: You can convert your existing CV to HTML page by using any online .doc to .html converter)
- Put that website in a directory. Create a *Dockerfile* in that directory, which describes your web application and its dependencies. The *Dockerfile* should include the following:
 - A base image that supports your programming language and framework.
 - Commands to install any necessary dependencies.
 - Commands to copy the application code into the container.
 - A command to start the web server.
- Create an image based on your *Dockerfile* using the “*build*” command. The image name should be your complete registration number (SP19-BCS/BSE-00).
- Test your Docker image by running a container based on the image and accessing your web application in a web browser.
- When we run that image in docker the **instructions** (URL, port no, etc.) for running the web page should be displayed at the **console** along with your information (name & Reg_No).
- Create a Docker Hub account if you don't already have one. Push your Docker image to Docker Hub with the following command: `docker push <dockerhub-username>/<image-name>:<tag>`. Be sure to replace `<dockerhub-username>`, `<image-name>`, and `<tag>` with your own values.
- Verify that your Docker image is available on Docker Hub by logging in to your account and checking the list of images.

Submission:

Just share the **pull command** in the email along with your information, at:

farhan.aadil@cuiatk.edu.pk

The subject of the email should be <**Your Complete Reg No**> +**Quiz1** e.g., **SP19-BCS/BSE-00**

Quiz1.

Assessment:

Your submission will be assessed based on the following criteria:

- b) Successful completion of all the above steps.
- c) The Dockerfile should be well-structured and include all necessary commands.
- d) The Docker image should run successfully and display the instruction on the console for running the web application and the web application runs correctly as well.**
- e) The Docker image should be successfully pushed to Docker Hub.
- f) Code quality and clarity.

Note: You are free to use any resources you like, including online tutorials and documentation, but be sure to cite your sources if you use code or ideas from outside sources.