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Weekly Development Report #3.

Performance Period: **Wednesday, 01/25 - Tuesday, 01/31**

1. **Group Accomplishments:**

   - Team resolved the issue so images and Lab 1 Documents are displayed on the CS410 project website
   - Learnt how to use Docker basics
   - Set up a connection between a MySQL Docker container running on the VM and the locally installed MySQL Workbench.
   - Created a docker container with a volume on the VM
   - Researched Docker in relation to Django projects.
   - Created a Docker image containing the Django backend for the prototype and uploaded the prototype repo.
   - Starting setting up local development environment in preparation for front-end work

2. **Individual Contributions/Accomplishments:** (to be filled out by each individual)

- **Judit Chang**
  o I was in contact with CS root regarding the CS410 project website, and verified that the images and lab 1 documents are displayed on it. Thus, the issue is resolved.
  o I added Trello cards for all upcoming Weekly Development Reports with the corresponding deadlines.
  o I learned how to use Docker (the basics):
    ▪ I installed Docker on my machine.
    ▪ I downloaded Docker Desktop.
    ▪ I created an account on Docker Hub, and completed the 'Docker Getting Started' tutorial.
    ▪ I pulled the MySQL Docker image, and created and ran a Docker container.
    ▪ I set up a MySQL database inside a Docker container, and connected to it.
    ▪ I created an image from a container, and pushed the image to my Docker Hub.
    ▪ I documented the resources that I used and the steps that I took:
      https://docs.google.com/document/d/18jS_r3kOI4g3zoZUla3d85FaBSDCAF9ND8WDCsVaPtc/edit#

- o With the help of Dr. Miller, I was able to set up a connection between a MySQL Docker container running on the VM and my locally installed MySQL Workbench. Katelynn and I were able to access the same database; changes made in the database in the container on the VM were visible in both of our MySQL Workbenches. Further research is needed for setting up the database that we will use for the prototype.
- o I learned about Docker Volume, and took some notes in the corresponding documents in our Google Folder.
- o Katelynn and I created a docker container with a volume on the VM. Then we both tested that we had access to the same test database, thus, we could see each other's changes. We created some test tables and made sure that we could both create and delete records in these tables.
- o Katelynn and I created a volume on the VM to hold the data of the database of Refill.Me .
- o   We made sure that we can create containers to which that specific volume (refill_me_vol) is mounted, and that we can access it via MySQL Workbench.
- o I researched how to set permission on volumes, especially how to prevent the deletion of a volume.
- o I searched for information about the Dockerfile and the Docker Compose file for MySQL in Docker.
- o I cloned our 'Refill.Me_Prototype' repo, and followed Michael's instructions: used the 'docker compose up' command to start a Django server. It went well, the docker container was created and ran, and the URL to the server was displayed.
- o I updated the Prototype MFCD to reflect the latest changes that we made to the prototype.

- ● **Michael Colombini**
  - o Researched Docker in relation to Django projects.
  - o Created a Docker image containing the Django backend for the prototype and uploaded the prototype repo.
  - o Currently working with John and Kira to set up the Django web server on the VM.
  - o Researching how to connect the backend with the database.

- ● **Katelynn Hull**
  - o I uploaded the weekly development report #2 to the website using GitHub.

- I researched more about Docker and installed it on my computer.
- I made a Docker Hub account and completed the Getting Started tutorial.
- I pulled the mysql image in docker and made a Docker container. I then pushed the image to Docker Hub.
- I made a MySQL database in MySQL Workbench and connected it to Docker.
- I had a meeting with Dr. Miller and Judit on Thursday where I made a connection from my local MySQL Workbench to the Docker container in the VM. I tested that I was able to access the same database as Judit.
- I made a section for the Prototype MFCD under RWP vs. Prototype on the website and uploaded.
- I researched more about Docker volumes.
- I set up a docker container with volume with Judit. Then we both tested that we had access to the same test database. We created some test tables and made sure that we could both create and delete data in these tables.
- I set up the official Refill.Me database with Judit.

- **Kira Maximova**
  - Watched Docker youtube video as well as the one that was provided by the class
  - Installed Docker locally and did some testing commands by followed the youtube video, but I haven't done the tutorial yet
  - Contacted root in regards to resolving two issues with VM; also looked at the space issues
  - I was able to see Judit MySQL image on VM but not Michael's
  - Attempted to link Michael' github changes onto VM - with no luck; changed focus to add image on VM directly - on going
  - Also spend time reading/exploring on the available and most popular Docker' images

- **Abdullah Pathan**
  - Started watching and learning more of Docker through videos, tutorials, and online sources
  - Installed Docker locally, tested spinning up containers and testing out various docker CLI commands
  - Researched how to possibly bring front-end technologies as containers using Docker

o   Starting setting up local development environment in preparation for front-end work

● **Gavin Rios**

o   Worked on my Lab 1

o   Filled out weekly development report

o   Researched and tinkered with Docker

o   Researched and refreshed myself on React

o   Troubleshooting some early issues with local development

o   Made progress towards creating a development process that can be migrated to VM next week

● **John Wasikye**

o   I installed Docker

o   Researched and studied more about django and how it works with docker.

o   Researched Doker by reading the notes and watching the youtube videos.

o   Wrote accomplishments for weekly development report

o   Worked on my Lab 1 draft

o   Followed Michels instructions to use docker-compose up, to test starting the Django server.

3. **Issues/Concerns:**

● From Judit: Setting up the Dockerfile and the Docker Compose file for the database, and learning their usage. I did extensive research (see: https://docs.google.com/document/d/18jS_r3kOI4g3zoZUla3d85FaBSDCAF9ND8WDCsVaPtc/edit#), but I am still not quite sure what these files would need to contain for our specific project.