
EE/CprE/SE 492 WEEKLY REPORT 11

12/15/2024 - 1/30/2025

Group number: ***sdmay25-33***

Project title: ***Interactive Embedded Systems Learning using the Prairie Learn Framework***

Client &/Advisor: ***Phillip Jones***

Team Members/Role:
Rachel Druce-Hoffman — Notetaker
Justin Cano — Technical Lead
Joey Krejchi — Quality Assurance
Caden Otis — Project Manager
Devin Alamsya — Consultant

- **Weekly Summary**

  This week was mainly focused on getting in touch with our advisor and planning out our beta test with Dr. Rover's 2880 course this semester.

- **Past week accomplishments**
  - Joey: I did some basic research into QEMU over the break. I watched YouTube videos and read some documentation on creating basic VMs with QEMU and create a few machines of my own
  - Caden: Similar to Joey, I also researched more into the QEMU ARM autograder to learn more about how we can use it to simulate registers and test assembly code. I read documentation that the previous team made and looked at some videos and documentation online. I also looked into the unfinished Cybot autograder that the previous team started on, but didn't finish.
  - Devin: Over break I worked on polishing up some short answer questions that needed to be reformatted to be fully randomizable and are able to be autograded by the PrairieLearn framework. I worked on H5_Q3, H8_Q2, H11_Q1E, and H11_Q2A.
  - Rachel: This week, I reached out to Dr. Rover to confirm how she wants to implement PrairieLearn into her class for beta testing. I researched qualitative feedback collection methods, as this was identified as a weak spot in our faculty

panel. I also emailed Dr. Fila to discuss this topic, as he has experience with this. Finally, I began reading guides on how to import grades into Canvas so that I will be able to implement that feature when we get a test Canvas course going.

- Justin: Over break, attempted to get microsoft OAuth working for Prairielearn, but had no luck with getting it to work. Started looking at the homework questions and attempting to break them for the upcoming beta test with Dr. Rover's class.

- **Pending issues**
  - Waiting for Canvas test page

- **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Caden Otis	Researched more about the QEMU ARM autograder for simulating assembly code, and also started to look into the Cybot autograder for emulating the Cybot.	5	5
Rachel D-H	Emailed Dr. Rover. Emailed Dr. Fila. Researched effective qualitative feedback collection. Read Canvas integration guides.	4	4
Justin Cano	Tried to get Microsoft OAuth working, but couldn't. Started making sure our questions are ready for the beta test.	4	4
Joey Krejchi	Researched into QEMU which is used in a couple of the autograders.	4	4
Devin Alamsya	Worked on short answer questions - H5_Q3, H8_Q2, H11_Q1E, and H11_Q2A.	5	5

- **Plans for the upcoming week**
  - Joey: I will push my finished code to the master branch so that it's ready for beta testing. Once we hear back about our beta testing plans, I may work on a future homework assignment.
  - Caden: Once HWs 1-6 have been pushed to the master branch, I will review the ones that I haven't worked on to make sure they don't contain any bugs or grammatical errors, and also see if they make sense for CPRE 2880 students. I will also continue to look into the QEMU ARM autograder and potentially implement some of the ARM autograder into HW 12.
  - Devin: I will push my finished code from last semester to the master branch for beta testing. Once all the code is in I will work to review HWs 1-6 to make sure that they are working as intended. I will then move on to review what Hws 1-7 look like and fix any problems that arise and are in need of fixing/reformatting.

- Rachel: I will create templates to collect notes during sessions with 288 students. Hopefully, we will have heard back from Dr. Rover and can take next steps accordingly. If the Canvas page is ready, I will set that up and begin testing.
- Justin: I plan to keep working on making sure the questions work properly and won't break during the beta test for Dr. Rovers 2880 course.

- **Summary of weekly advisor meeting**

  For our first advisor meeting after the winter break, we discussed how progress was going for the beta version of our project. We learned that we needed to push all of the changes for HWs 1-6 to the master branch of our repo so that they could be synced with the production server. Our advisor then recommended that we have 2-3 people review each homework to make sure they don't contain any errors. Our advisor also suggested that moving forward, we should have a dev branch unrelated to the master branch so everyone can sync all changes before those changes get pushed to the master/production branch. We also discussed our issue with not being able to get Microsoft authentication to work on our server, and a potential solution would be to get access to last year's server and see how they got Okta authentication to work. The last thing we talked about was possible solutions for getting CPRE 2880 students this semester to experiment with our project and provide us with feedback.