

**From:** German, Dan-Adrian  
**Sent:** Friday, July 5, 2019 8:37 PM  
**To:** Sabry, Amr A.; Betzold, Jake J; Olsen, Andrew H; Dalkilic, Mehmet M.; Cherechinsky, Fisher; Chen, Yifan; Weissmann, Andrew K; Cavar, Lukas D; Rose, Robert; Ortiz, Gerardo  
**Cc:** d.adr.german@gmail.com  
**Subject:** end of week 3 (y390 qc 6w2 2019)

We met today: Yifan, Lukas, Andrew and Fisher. We discussed chapter 1-7 very briefly and then set goals for next week. We decided I will meet individually with the students from now on (though meeting together as a group was invaluable, I think, at this time) and that we will all communicate through the following public repository (with current collaborators Lukas, Andrew, Yifan, Fisher and me):

[link to this repository was here]

There are five folders there (one for each of the five collaborators). In mine I will post the lecture notes as I update them. I will also archive these notifications (which is why I am no longer including the previous message here). Everyone is supposed to upload answers to all problems in the Christine Moran Corbett book and/or ask questions or check to see what everyone else has posted. With a previous message I shared a link to a local .pdf copy of the Moran Corbett book. As I explained to Fisher today (he's completely up to date, even though today was the first time I met with him) we want to solve all the exercises in the Moran Corbett book and then compare with the Shor description in the Yuly Billig book, then with the Grover and Shor descriptions in the Riley Tipton Perry book and at that time also understand Deutsch and Deutsch-Josza.

Today we brought up one more book (the last one) because it was the original motivation behind our approach:

[link deleted]

This is the Silva book. Please don't distribute this link (or the previous one to Moran's .pdf) I am just just trying to share with our group both authors would be upset if we distributed the links. Once we solve all exercises in the Moran book she said she'd be happy [1] to look over our solutions. At that time we hope we will have a coherent/uniform understanding about Deutsch, Deutsch-Josza, Shor and Grover and as one last exercise we will look at Silva's book (above) and compare/contrast with Moran's.

So at this time we understand qubits, quantum registers, quantum gates, quantum circuits and we think the relation between the Quantum Composer and OpenQASM is the same as the relationship between Query-by-Example and SQL. Our goal for next week is to be able to develop articulate high-level descriptions of Shor's and Grover's algorithms from Moran and point out and be able to run the relevant code from the book that supports the descriptions we develop.

So please watch [2] the GitHub space for updates (answers, questions, comments, lecture/lab notes) over the next week or please let me know if you have any suggestions, comments, questions etc. I can definitely add anybody as a collaborator to the github folder mentioned above, just let me know if that's needed. This message was slightly edited compared with what I sent Friday, to fix minor omissions and typos.

I hope all is well with everybody,

Sincerely,  
Adrian German

[1] <https://twitter.com/rctmpx/status/1146268935282708481>

[2] It's now almost end of Sunday 07/07 @10:41pm I am writing from Michigan and Fisher and Andrew have already posted meaningful stuff!

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