

Meeting minutes

September 30th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Researched existing implementations of coding assignment auto-marking systems
- Considered the direction of the project and researched some potential technologies to bring it to life
- Implemented a python script that can match a java output vs a predefined result and monitor average execution times as well as memory usage

Questions addressed in meeting and solutions agreed:

- **Q:** Are the only requirements of the auto-marker that it checks program output? If not, is there anything else in particular?
 - **A:** Yes, that is the only requirement of the program. However, it is entirely open to you to involve any other metrics you deem useful
- **Q:** What kind of feedback do you usually provide to submissions for these types of assignments (assessed exercises for intro to coding masters students)
 - **A:** We do not usually provide individual feedback on submissions as there are simply too many. Instead, we provide a general feedback document addressed to the entire class which details common mistakes or successes seen in most of the submissions.
- **Q:** Are the method and class names predefined in the assessed exercise document?
 - **A:** Yes, submissions will obviously differ in their implementation but the method and class names should be the same across the board

Objectives for this week:

- Solidify an idea/direction for the project as at the moment it is still a collection of vague ideas
- Research testing individual methods in a given .java file instead of only testing output of the entire program

October 7th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Researched automated JUnit testing for individual method/function marking
- Decided project direction
- Wrote motivation part of dissertation
- Started development on website for the auto marking platform

Questions addressed in meeting and solutions agreed:

- **Q:** If I wanted to host the site to test it/gather user feedback and potentially draw some conclusions for my dissertation later down the line,, is this something I would have to fund myself?
 - **A:** Yes, unfortunately the university will not be providing any funding for these sorts of things. It is however perfectly acceptable to just host the site locally for testing and feedback purposes
- **Q:** In the dissertation, what would you say is a healthy split between commentary on design and development of the platform vs. research into things like using AI to give automated personalised feedback etc.
 - **A:** When I thought of this project idea, research was not necessarily the route I had in mind for the project but I am more than happy for you to take it that way. My concern for you would be that if you haven't taken text as data it might be a bit much for you to teach yourself/take on. If I were you I would park that for now and focus on documenting the development process, and you can come back to the research aspect later.

Objectives for this week:

- Write the aims section of the dissertation
- Continue development of the platform, get assignment creation working

October 14th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Finished first draft of the aims section of the dissertation
- Started mapping out what the background section will look like
- Continued development of the platform, cleaned up some API request spam and got assignment creation up and running

Questions addressed in meeting and solutions agreed:

- **Q:** How involved can you be in the dissertation writing process? I have written a first draft of the motivations and aims sections, is it reasonable to ask you to proofread or give some insights?
 - **A:** I can help with the dissertation writing process but I wouldn't worry too much about getting parts of your dissertation perfect just yet. It's good to focus on getting a structure and planning out what you will write in each section first. Around Christmas I will start asking for individual parts of dissertations from all the projects I advise. When that happens I will proofread and give some insights/make some comments
- **Q:** Some of my friends have been talking about setting up docker for their projects and there was talk of it being important for all projects to have, is this something that is mandatory?
 - **A:** No I haven't heard anything about needing to use docker, if there was a requirement I'm sure I would have been told. It is up to you if you want to use it and it can have benefits but as I said it is not a requirement.

Objectives for this week:

- Start on the background section of the dissertation
- Continue development of the platform, continue developing the assignments system and (maybe) get an automarking system working

October 21st 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Created an outline for the background chapter of the dissertation

Questions addressed in meeting and solutions agreed:

- **Q:** Does the following sound like a reasonable structure for the background section of the dissertation? Related/existing products (pros/cons), Discuss popular metrics used to mark coding assignments both automatically and manually, Discuss research conducted on AI-assisted automated feedback and its feasibility on the platform
 - **A:** Yep, that sounds good to me. I don't think anything there belongs in a different chapter. If you are going to discuss popular methods of automatically grading programming assignments, there is probably a decent bit of literature on the topic that you can bring into the discussion
- **Q:** Do you think that is enough to discuss in the background? I have looked at some of the hall of fame papers and the lengths of the background chapters are quite varied depending on the topic
 - **A:** I would say that I typically expect about 5 pages for the background chapter. I have seen less pages also work but I would aim for 5.

Objectives for this week:

- Start writing the background section of the dissertation
- Continue development of the platform, continue developing the assignments system and (maybe) get an automarking system working

October 28th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Refactored project folder in git to fit the template outline
- Created assignments page and system

Questions addressed in meeting and solutions agreed:

- **Q:** What kind of a state should the code be in by Christmas break?
 - **A:** The code is really something you take at your own pace, it should be in a state that you are happy with. I would say just keep working on it when you have time between courseworks and then it should be fine.
- **Q:** What kind of a state should the dissertation be in by Christmas break?
 - **A:** The only part of the dissertation I start asking for immediately before or after Christmas is the background. I would aim for having a solid background section around that time.
- **Q:** How many existing products do you think I should discuss in the background?
 - **A:** To be honest this is kind of like asking how long is a piece of string. It just depends on how much is already out there and what you think is worth discussing. Just 1 or 2 might not be enough though.

Objectives for this week:

- Work on background section of dissertation
- Groups system for assigning

November 4th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Groups system implemented with dynamic user searching and suggestions

Questions addressed in meeting and solutions agreed:

- **Q:** In the design section of the dissertation, how in depth should it be? Should I just describe and justify my design choices? Or should I go further by gathering user feedback from sources like questionnaires and discuss revisions/overhauls etc.
 - **A:** Gathering user feedback and such is something that you can do in the design section, however I would only focus on something like that if your project is HCI-oriented. If you had infinite time, sure, it would be good. But because I gather that is not the direction you want to take it, I would just stick with documenting and justifying design decisions as you said.

Objectives for this week:

- Background section of dissertation

November 11th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Product review section of dissertation

Questions addressed in meeting and solutions agreed:

- **Q:** At the end of the product review section, should I include a paragraph or two about how I will apply the positive aspects and avoid the negative ones in my product?
 - **A:** This definitely sounds like a good idea to write about in the dissertation. I think this would be much better suited in the design section though. I would leave the background as just a way for the reader to get context about the project.
- **Q:** Should I write a section about unit testing in my background? I was initially planning on it as pretty much all automatic code testing is based on it but when I came to writing it I wasn't sure what to include...
 - **A:** To be honest when considering the project I didn't even really think of it as unit testing, but I suppose it is. You could write about it but I would say it isn't strictly as necessary as something like the product review
- **Q:** Ok so if I don't include the section about unit testing, do you think the background will be sufficient just with the product review and a section about research into AI generated feedback?
 - **A:** Yeah that sounds good enough to me

Objectives for this week:

- Finish the first draft of the background section of the dissertation, do the section on AI generated feedback

November 18th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Research for AI generated feedback part of dissertation background

Questions addressed in meeting and solutions agreed:

- **Q:** [Question about changes to the scheduling of the last couple meetings of the semester]
 - **A:** [Answer not strictly relevant but misunderstandings were cleared up]

Objectives for this week:

- Finish the first draft of the background section of the dissertation, do the section on AI generated feedback

November 25th 2024

Present: Will Murphy, Chris McCaig

Achieved in previous week:

- Project temporarily on hold due to intense coursework load

Questions addressed in meeting and solutions agreed:

- **Q:** Since progress has slowed significantly these past couple weeks, I suspect I will be doing a decent chunk of work over Christmas. Would you still be available via email during that time?
 - **A:** In the first couple weeks of what you're calling your Christmas holiday yes I would be available either via email or even potentially a teams meeting. But the last two weeks of the Christmas holiday I am also on holiday so I will not be available during that time

Objectives for this week:

- Finish the first draft of the background section of the dissertation, do the section on AI generated feedback [SUBJECT TO OTHER COURSEWORK DEADLINES]

January 13th 2025

Present: Will Murphy, Chris McCaig

Achieved over Christmas break:

- Finished first draft of background chapter of dissertation

Questions addressed in meeting and solutions agreed:

- **Q:** Initially, I wanted to have a section within the background chapter that discussed existing research into the application of AI in automatically generating feedback for students. However, when actually doing the researched I realised that there is not much work published on the subject so I had to do my own research. Is this still suitable for the background chapter or should it be moved into implementation?
 - **A:** I can see why you are unsure of that section's place in the paper, I think that as long as you mention that you did the research address the gap appropriately, then it is still fine to have that in the background section
- **Q:** You mentioned a date by which you would like me to have the background section ready for you to have a look, when was that again?
 - **A:** Yes that will be at the start of February.
- **Q:** Will you be able to look at other chapters too?
 - **A:** I have other responsibilities and other projects to look at but I might be able to have a quick look at anything else you have managed to complete yes. Don't expect in depth feedback though.

Objectives for this week:

- Focus on code, since I didn't get much done over the Christmas break.
- Aim to get submission system working

January 20th 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Submission system
- Lecturer view for student submission
- Individual submission viewer

Questions addressed in meeting and solutions agreed:

- Since I was just working on the code, there were no questions. This week's meeting was just a progress update

Objectives for this week:

- Get an implementation of automated unit testing working

January 27th 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Submission marking page
- Automated unit testing of Java code

Questions addressed in meeting and solutions agreed:

- **Q:** If I run into time problems, how many languages do you think would be a good amount to support?
 - **A:** I wouldn't bother with too many as it gets to a point where the marker isn't going to be that much more impressed by an additional language being supported. I would aim for at least getting 3 big ones like Java, Python and C

Objectives for this week:

- Wrap up first draft of the background section of the dissertation
- Make a start on requirements analysis and maybe design chapters

February 3rd 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Modifications to the background chapter
- Finished requirements analysis chapter

Questions addressed in meeting and solutions agreed:

- **Q:** How long do you roughly think it will be before you finish going through and having a look at the background chapter?
 - **A:** Send it to me as soon as possible and I will try to start reading them by Wednesday. It shouldn't be too long after that

Objectives for this week:

- Implement unit testing for python and c
- Implement unit test result saving

February 10th 2025

Present: Neither

Meeting skipped due to scheduling conflicts

February 17th 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Implementation of python and c
- Implementation of unit test result saving
- Finishing of requirements chapter in dissertation

Questions addressed in meeting and solutions agreed:

- **Q:** I was looking at some of the hall of fame dissertation design chapters and noticed their backend architecture sections are quite detailed. I fear my project's self-contained nature will not give me enough to discuss. Do you have any suggestions?
 - **A:** Don't stress too much about the exact lengths of subsections in the hall of fame dissertations. Every project is different and your dissertation may be longer in parts where theirs were shorter and vice versa

Objectives for this week:

- Implement memory usage and execution time logging
- Implement scoreboards

February 24th 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Implement memory usage and execution time logging
- Implement scoreboards

Questions addressed in meeting and solutions agreed:

- No questions, as the meeting was just a code progress update

Objectives for this week:

- Finish design chapter of dissertation

March 3rd 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Finished design chapter of dissertation

Questions addressed in meeting and solutions agreed:

- **Q:** I wasn't sure how much detail to go into in the user interface section of the dissertation for fear of repeating myself. I ended up with the following: Sitemap/pages discussion, design philosophy, mini case study of 3 pages. Do you think that sounds sufficient
 - **A:** Yeah, the design chapter is about the process of laying out the foundations for implementing your requirements. So if you have covered a sufficient amount of them that will be fine.

Objectives for this week:

- Implement AI Feedback

March 10th 2025

Present: Will Murphy, Chris McCaig

Achieved in the last week:

- Implemented AI Feedback
- Last finishing touches to code

Questions addressed in meeting and solutions agreed:

- **Q:** For the evaluation, do the responses have to be anonymous?
 - **A:** Yes the evaluation should be conducted anonymously by participants

Objectives for this week:

- Start on implementation chapter