Dean Symonds

Individual Assessment/Reflection

Statement of work:

Throughout this project, I was on the coder/designer team. We began the process for this project on week 12, in which we did a presentation on an article that attempted to predict the binding tendencies of yeast genes with 203 different transcriptional regulators. We concluded that the paper was very difficult to understand and was not well formulated. My Wiki page for this week can be found at the following link: [here](https://xmlpipedb.cs.lmu.edu/biodb/spring2024/index.php/MSymond1_Week_12). There a link can also be found to the presentation for that week.

On week 13 my partner and I began building the database. We had a total of 6 milestones to complete as coders/designers. The first two were already completed by week 13 because we had all of the necessary accounts for creating the database and we also had finished our presentations. We began milestone 3, but we ran into some problems with the files we imported into excel being the wrong format. My wiki page for this week can be found [here](https://xmlpipedb.cs.lmu.edu/biodb/spring2024/index.php/MSymond1_Week_13).

On week 14 the wiki page was down, so my progress report for weeks 14 and 15 were combined into one page. Throughout these weeks, we were able to complete importing the tables into excel because our professor helped us troubleshoot the issues of the files being in the wrong format. We were also able to import the data into the database, but again we ran into issues of the data being in the wrong format. Milestone 5 was mostly completed by the quality assurance team by checking to make sure the database was correctly built. Milestone 6 had a few issues of creating a GRNmap input because it involved running queries in the database, which proved to be more difficult than anticipated. We realized we had an issue with one of our tables, the gene table, in the database, and I had to correct this issue by importing the table again. After doing this, I completed milestone 6 completely by myself because the things that were done by my partner were all incorrect and I had to redo the queries in the query design. A link to my wiki page for this week can be found [here](https://xmlpipedb.cs.lmu.edu/biodb/spring2024/index.php/Final_Project_Deliverables).

After completing the milestones, I helped make the presentation with my group. The things I assisted most on the presentation are the slides that pertained to the database creation and the queries of the database. I also assisted a lot in the making of the outline slide and condensing it without putting too much information on it. I also presented on the slides relating to the database creation and the queries. I also mostly assisted in writing the sections of the group report including the methods section for the database creation and running the queries. The final presentation can be found [here](https://docs.google.com/presentation/d/1DnYfkl9j5hy6EqTc1XT0tT7A_husJCJNNgsxhncsozY/edit?usp=sharing). And a link to the final group report can be found [here](https://docs.google.com/document/d/1-jvQr9VF5v1kIyaBesaUbGRxTmtHR7UxYtIR_9ITbmE/edit?usp=sharing).

Assessment of Project:

I think the things that worked well were the communication between the different teams on this project. Which I am surprised to say, because we definitely did have plenty of hiccups throughout the project, but I believe they mostly happened within the different teams, not as much between them. I believe all of the teams did do what they needed to do for the other teams in a timely manner and when they were supposed to. I do believe that the individual teams did have issues with collaborating sometimes because they were not able to work on their files at the same time, my team specifically could not work on the Microsoft access database at the same time, nor could we work on any excel files at the same time. I think also working in a six person group made it difficult for everyone to contribute equally to certain things, particularly the presentation or the final report. I do believe that there were some people that contributed a lot to said deliverables, and some people who did not. I think my team’s work in terms of the database was very good since we were able to construct a database that now works like a well-oiled machine. I think that our wiki pages are also well done and do not need a lot of changes. I do believe that we could have organized the box folder far better, for we saved a new version of the files everytime we changed something and that left us with far too many versions of certain files that we did not need on the box folder. I do believe that my group completed all of the project’s objectives and that we could have done certain parts in a more timely manner, specifically the GRNmap input workbook.

Reflection on the process:

Throughout this project, my head learned much behind the theory for bioinformatics. I learned the correct file types for different software’s, and the functional differences for them. I learned why certain queries may not be working sometimes. I learned about the advantages of using Microsoft acess as opposed to using excel. I would have never been able to run the queries and find certain information so easily and quickly on Microsoft excel. This certainly did teach me about why people go through all the technical difficulties and all of the hardships I may encounter to put information on a database, because in the end, with what you are able to do with it. It does become worth it.

I also learned valuable teamwork skills by collaborating with 5 different people on this project. Collaborating with my partner usually did go well for this process, except for a few times in which I believe I was doing more than my partner. But it was difficult at first to be collaborating with my entire class on this project, and I believe that all of us figured out the best way to do it eventually, so we did start collaborating very well.

I believe my hands learned more than either my head or my heart from this project. I was tasked with carrying out some very difficult and very technical heavy things for this project. I had to create an entire database on Microsoft access after importing 6 different tables into Microsoft excel and I had to make sure that all of the tables had all of the right information, I also had to make sure they imported correctly into Microsoft Access and I also had to make sure they had the right variable distinctions as well as making sure they all had the correct relationships with one another. I also had to make sure that it was suitable to run queries in the database which is another complicated task that took me awhile to learn correctly.

From this project, I know that I will likely not be taking these skills to create more biological databases in my long-term career. For I do not believe that my long term career will be in this field. I do believe, however, that this project taught me many useful life skills such as teamwork, especially in larger groups. I also believe that it taught me how to overcome certain confusing challenges that I will inevitably face in my life. I also believe it taught me organizational skills for when I have to use programs such as Microsoft excel in the future.