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CMPT 308N

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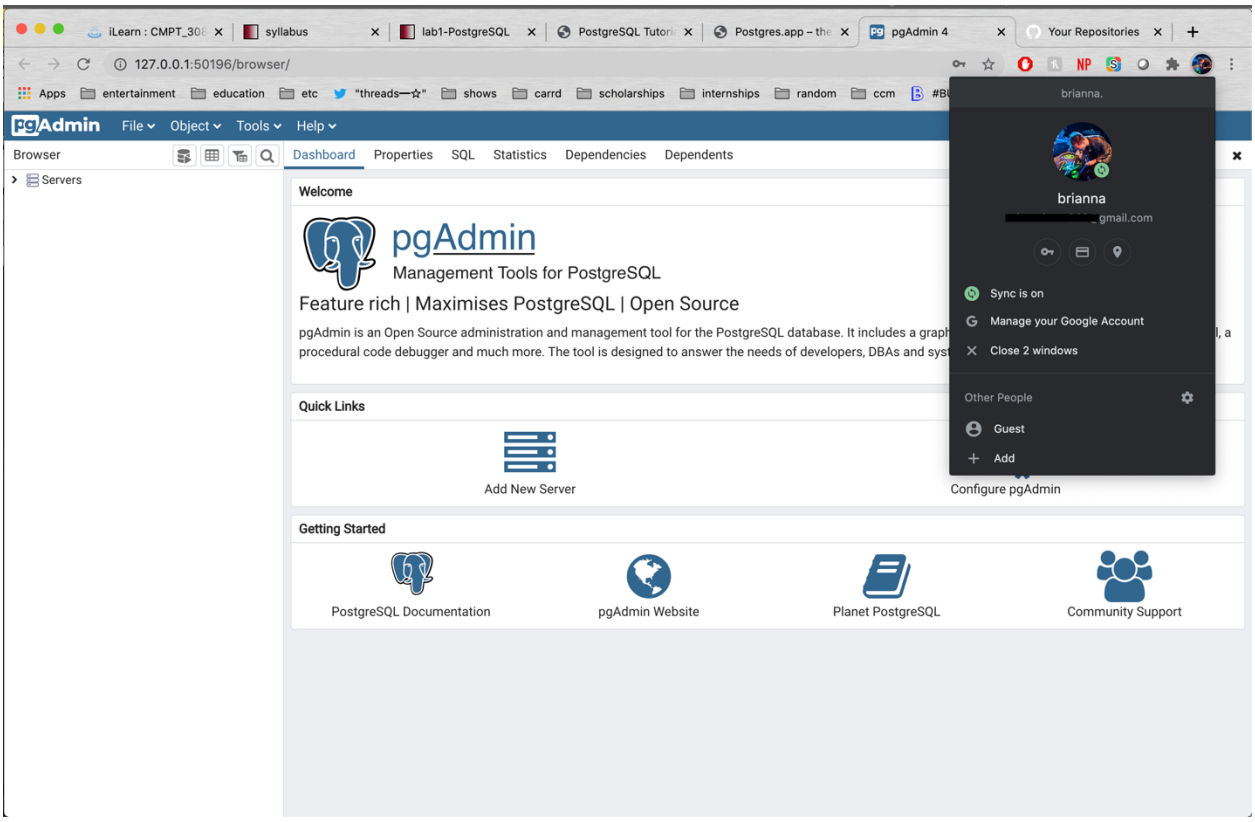
Lab 1 – PostgreSQL

1. Screenshot of pgAdmin4



2. Twitter's database holds a lot of information about all the users on the platform. The "data" on Twitter would be the user, for example, me and the "information" would be their username, password, their biography, and all of the user's tweets. For meaningless "data" and "information", an example of this would be a user's followers and following. The "data" would be the number of followers and following a user would have, so a user

could be following 248 people and have 342 followers. The meaningless “information” would be the people in both those lists. All the people the user follows and the people that follow the user would be meaningless information. The “information” only holds value if the “data” was there, because if the “data” doesn’t exist then there would be no information and wouldn’t be in the database. For example, if a user ‘William Shin’ isn’t on the platform, it implies that they’re not in the database. ‘William Shin’ doesn’t have any tweets for the user, no biography, no followers and following list, therefore is nonexistent on Twitter.

3. Some models used in earlier database management systems were the hierarchical and network models. The hierarchical model was a semi-structed data, or a tree-oriented model. By tree-oriented model, it is a model that has lower levels sorted under a hierarchy of higher units. A network model was a graph-oriented, physical-level model. It is a flexible approach to representing objects and relationships. With a hierarchical model, the only con that it had was that it was unlike modern models. It operated at a physical level, which made it impossible for programmers to write code at a high level. In contrast, the con to a network model was that the structure was difficult to change. However, both the hierarchical model and today’s semi-structured models allow for full graph structures and are aren’t only limited to trees. I do think that XML can be a model for data storage but I do not think that it would be ideal. You can use XML to create a tree and have nested sub elements and be able to store information in those sub elements and more information in sub elements within the former sub elements.