

FINAL PROJECT REPORT

1 Team and topic

We missed this phase. Reason was silly. We used to start a project at the end of the semester.

2 Project description and data preparation

Your feedback was 'fair but not enough for junior level students'. We agree with that.

3 Project Use-Case diagram and questions over the data

Making these diagrams are my(Assel) favorite part. We have a Software engineering course now. We covered these topics. So, there was no problem with making uml diagram. We made 15 questions over the data. It was challenging to construct questions in such a way, so that 6-7 tables were able to join. We explored the structure of several e-commerce websites. It was fun.

4 Data modeling and database design

We have been making ER diagrams since the first database course. It's the most important part of making software. While drawing, you will have a complete picture of your shop. There were difficulties with parsing, on many sites we were blocked.

5 SQL queries

We had a total of 15 questions. We divided it by 3. Each of us could write 5 queries.

6 User-interface implementation and connection

We have a connection to the Postgres database via the node-postgres module, which we used to bind mobx state between pages

7 SQL to Relational Algebra (RA) operators

It was time consuming including also labs. Understanding how query processing works was an important part of our journey.

8 Calculating true cardinalities and plan evaluation

Listing 3 plans for each 7 queries was challenging. Because our queries actually consist of 6-7 tables. It means we have a 720-8040 plan overall. Thus, we have not analyzed evaluation properly.

9 Speed performance evaluation

As we made a database using PostgreSQL, it provides an explain analyze method to see evaluation time. Actually the difference was not so big. But every second matter in query evaluation.

10 Presentation and Demo

Overall the process was fun. We have learnt a lot. Working with a team is always a good experience. So, see you on May 14th ;)