DBMS Mini Project

Assignment - 2

Name	SRN
Aanchal Narendran	PES1UG19CS006
Ananya Uppal	PES1UG19CS058
Anisha Ghosh	PES1UG19CS067

Problem Statement: Online Book Store with an Inbuilt Genre Classification System

Application Name: EZBook

Problem Statement Description:

The current issue faced by physical bookstores is the fact that classification is primarily manual and is prone to human errors. We aim to make the classification of books into their genres more automated and user friendly. This advancement will tailor to the needs of the new generation of readers.

According to the Gartner- Hype Cycle, Data classification is one of the up and coming technologies here to stay for 2-5 years.

Task-1: Mapping conceptual model to Relational/NoSQL model

1. DBMS chosen: For this project, we have chosen to use a Relational model for implementation owing to certain characteristics of our data and implementation. This will be examined in-depth in the next section.
2. Reasons for choice of DBMS:
    a. With a relational schema in place, it helps track and perform operations on our data in a much more simplified manner. In the case of NoSQL, we would have to perform repetitive checks during processing to ensure accurate data. Constraints in RDBMS help solve and eradicate this process in the beginning.
    b. Most, if not all of our entities, carry tabular data where all the fields are necessary for the tuple to be considered useful. In cases of tabular data, RDBMS is far superior to NoSQL
    c. NoSQL involves heavier processing code. This need is justified in cases where RDBMS doesn't solve the problem but in our case, RDBMS is more than sufficient to tackle all our data processing.

    Due to all of these reasons, we have chosen to use RDBMS instead of NoSQL.

3. Specific implementation
    a. We have chosen to use PostgreSQL for our project due to the following reasons:
        i. Ample practice in the lab and queries in class have simplified our understanding of SQL. This will help us in harnessing its powers to the best of our capabilities
        ii. Postgresql is an intuitive SQL tool that is similar to typing out queries in English. Moreover, the added benefits of a GUI and CLI help solidify our choice
4. Installation: All of us have already installed PostgreSQL as a part of the DBMS Lab

Task-2: The sql files
databaseName: ezbook

Files ----
Ddl: https://drive.google.com/file/d/16y3uqWuQcMZ92mGxjm93YhxYfLtfgUiX/view?usp=sharing
Insert ddl:
https://drive.google.com/file/d/1UKrTxeQ_IGDuQRPvHp4xIpr-IjwkRs83/view?usp=sharing