REPUBLIC OF PHILIPPINES

BICOL UNIVERSITY

POLANGUI

Polangui, Albay

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Subject: Information Management I

Course/Year: BSIS-2B
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Week 11: Schema Implementation and Large Dataset Seeding

Working on our final project to design and set up a MySQL database for Polangui residents with over 100,000 records was tough but really rewarding. As beginners, we ran into some problems at first some tables like Address had way too much data, while others like Barangay were empty, which broke our database links and caused errors.

We realized we needed a better plan, so our team worked together to create a GenerateData() function using loops and random values to make fake but realistic test data. We made sure IDs matched across tables, used random zip codes and birthdates, and set up gender fields properly to keep things consistent. After fixing lots of bugs, finally seeing every table hit exactly 100,000 records felt like a huge win.

This project taught us more than just SQL it showed us why teamwork, data accuracy, and speed matter. We saw how small mistakes, like wrong IDs or missing rules, can cause big problems in databases. We had to think like real developers: "How do we make test data that's not just correct, but actually useful?"Even though we used fake data for privacy, the challenges felt real debugging errors, making sure everything scaled well, and keeping the database organized.

We also learned how important planning is with big datasets. If we hadn't mapped out how tables connected early on, things would've gotten messy fast. The way we organized our work helped us fix issues quicker and made our code easier to reuse and explain. It proved that clean, well-documented code matters even in database scripts.

This project also got us thinking about the limits of traditional databases. For things like activity logs, open-ended survey responses, or social media posts where the data doesn't always fit neat rows and columns a NoSQL database might be the better choice. MySQL worked perfectly for organized resident info, but for messy, fast-changing data, a flexible system could save a lot of headaches. It was a good reminder that picking the right tool depends on what kind of data you're working with.

In the end, this project didn't just make us better at databases it boosted our confidence, helped us understand how systems work, and showed us how teamwork turns confusion into solutions. These lessons will stick with us long after the project is done.