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WEEK 13: Cloud Backup and Integration of Emerging Database Technologies

REFLECTION

In this activity, we learned how to back up, restore, and deploy a MySQL database using both MySQL Workbench and a cloud platform called Railway.app. This was a new and challenging experience for us, especially since we had not done anything like this before. We mostly worked with databases locally in the past, so learning how to manage them in the cloud was both exciting and confusing at the same time.

For the first part of the activity, we created a backup of our database using the Export to Dum Project Folder option in MySQL Workbench. After that, we simulated a database failure by deleting the original database. Then we used the backup file to restore everything back to normal. This part helped us understand how important it is to have backups, especially in situations where data could be lost by accident or due to system failure. We realized that backup and recovery are essential skills in real-life IT and software development work.

However, we experienced several issues during the backup and restoration process. At first, we didn’t fully understand how to properly export and import the backup file. We also tried different export options and weren't sure which one would work best for restoring the data. It took a bit of trial and error before we got it right.

The second part of the activity, cloud deployment, was even more difficult. We faced more problems when trying to set up our database in the cloud using Railway. One of the hardest parts was figuring out how to connect MySQL Workbench to Railway's cloud MySQL database. It wasn’t as simple as just logging in—we had to input several pieces of information like the host, port, user, and password correctly. We also struggled with importing our backup into Railway because it only allows one database, and we had exported more than one at first.

We didn’t understand all of this right away, so we had to rely on online help. We looked for tutorials, forum posts, and guides to walk us through the steps. These sources were very helpful, and little by little, we figured out how to make everything work. After a lot of effort, we were able to successfully upload and run our database in the cloud.

Overall, this activity helped us develop both technical and problem-solving skills. We learned how to use MySQL Workbench more effectively, how to create backups, restore data, and how to set up and connect to a cloud-based database. More importantly, we learned how to deal with problems when things don’t go as expected. Instead of giving up, we took the time to research and find solutions. In the end, we were proud of what we accomplished. Seeing our project database working online gave us a real sense of achievement.

This experience helped us understand how databases work both locally and in cloud environments, and it will definitely be useful in our future projects or even in real-world jobs. We now feel more confident working with MySQL, cloud platforms like Railway, and solving technical issues as a team.