# **Learning Journal - Unit 1**

Computer Science, University of the People

CS 2203-01 Databases 1 - AY2024-T3

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This week, the first week of our term learning about databases. It started out fast and strong. I will admit that I was not expecting the amount of knowledge and information that would need to go into this first week. I was expecting a slower start. But I think I was up to the task and even though there was a lot of reading material and video lectures to read and watch I was able to schedule and fit everything into my already hectic schedule.

The main things we learned this week were mainly focused on the week's programming assignment which involved designing and planning a database for a hospital. The goal of the database is to back a system that will manage doctors, patients and the appointments between them. For this, we needed to think about how we want to store the records for each of these domain items and how we want to reference and connect them. We also had to make sure we took note and made sure to add constraints to any fields that required it to help us maintain a stable and fully capable data structure. We also had to make sure that our resulting data structure would fully cover all the needs and requirements set to us by the customer (the hospital)

We had to make sure that the solution we came up with fully reflected all the interests and the constraints set to us by the customer. Remember that the customer is a large and important organization which has to deal with extremely sensitive data, such as people's private medical records and personal details of both doctors and patients. Also needs to be kept in mind when designing the system the shier load that will be on the system since the system would basically be integrated into most parts and divisions of the hospital and maybe even need to be accessed from multiple locations from outside the client's main physical location.

Thankfully I am already positioned in a job as a CTO of a company and I have been in the development field for over 30 years now. I have seen and witnessed many new technologies blossom and grow over the years, especially in the world of data storage and management. This bloom grew into a tsunami when the cloud became much more integral in our systems since more and more systems required the need for higher and higher loads and stability.

But when looking at the positions surrounding the database community and the job circuit. I find myself most pulled to the position of database architect. This is because I have always seen myself as a big-picture developer. And when designing and planning a large-scale system that needs to be accessed globally and needs to stay scalable and stable the big picture is where things are most important and interesting.

## References

* Learning Guide Unit 1  
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* Watt, A., & Eng, N. (2014). Database design,  2nd ed. BCcampus, BC Open Textbook Project.   
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* Unit 1 Lecture: Information Models

<https://my.uopeople.edu/mod/kalvidres/view.php?id=402427>

* Unit 1 Lecture: Relations  
  <https://my.uopeople.edu/mod/kalvidres/view.php?id=402428>
* Unit 1 Lecture: Constraints  
  <https://my.uopeople.edu/mod/kalvidres/view.php?id=402429>