

To determine what I would include in my database, I looked at the two following websites:

<https://vertabelo.com/blog/database-design-management-system/>

<https://www.geeksforgeeks.org/how-to-design-a-database-for-online-learning-platform/>

These two websites laid out the groundwork for me. I used what they recommended, like capturing user login information such as date of birth and full name, creating a user ID, determining the user's role, whether teacher or student, and contact info like email and phone number.

I also looked at platforms like Blackboard and Pearson Mylab to capture information such as uploaded content, assignments, grades, courses, classes, due dates, etc. This all helped me get an understanding of what to include in my database as the bare minimum. As such I made a rough table of how I wanted my database to be the attributes I wanted it to have.

Users	Courses	Categories	Enrollment	Classes	Uploaded Content	CourseWork	StudentWorkOverview	Student Overall Grade
UserID	CourseID	CategoryID	EnrollmentID	ClassID	ContentID	CreatorUserID	StudentWorkOverviewID	Student Overall GradeID
Role	CourseName	Category Name	CourseID	CourseID	ClassID	WorkID	StudentUserID	Grade
First Name	CategoryID	Category Description	Student UserID	Teacher UserID	UserID	ClassID	ClassID	ClassID
Last Name	TeacherUserID		EnrollmentDate	Start/EndDate	ContentTitle	NumOfQuestions	WorkID	

Email	Price				Uploaded Date	Allowed Attempts	WorkGrade	
Phone Number	CourseDescription				ContentDescription	OpenDate	Feedback	
DOB					ContentType	DueDate	NumOfAttemptsUsed	
Registration Date					FilePathorURL	WorkName	Submission Date	
Password						WorkType		
						TimeLimit		

After deciding on my tables and what information each one would have, I started working on my diagram. This was the hardest challenge for me since I struggle to draw the diagram and have enough space for everything. My diagram ended up looking rough and very tight/messy. But I left that to be. I then started making the tables and creating sample data in MS Access. This took a while, but after doing so, I then set up the relationships between the tables and took a screenshot of it as my second diagram. Creating the tables and sample data was a little challenging due to the number of sections some tables had, but it wasn't too bad. For some of the sample data, I relied on just using placeholder text or ellipses to express that a variation of text can be entered. For example, this can be seen for course descriptions where I simply added some text followed by ellipses. After filling up the tables with sample data, I tried to import it into MySQL but was having some difficulties. For some reason, the import feature wasn't working for me correctly, so I instead decided to use a third-party tool to transfer the database into MySQL. This also transferred all the sample data into MySQL.

