

# Project Phase 3

CS4.301: Data and Applications  
Course Instructor: Kamal Karlapalem

**Due: 11:59 PM, October 9, 2021**  
Released: September 28, 2021

## 1 The Task

Convert the ER Diagram designed earlier to a relational model. Then convert this to first, second, and third normal forms iteratively.

You will be required to submit a snapshot of the relational model at the following stages:

- After mapping ER to relational model
- Relational model after conversion to 1NF
- Relational model after conversion to 2NF
- Relational model after conversion to 3NF

*If there is no need to convert to a certain normalized form, mention it in the submission document. You do not have to submit the snapshot for that stage in that case.*

### Explanation

You must also provide **concise** explanations for each of the stages above. These explanations should contain information about the changes made to entities to reflect the relational mapping. Note that we do not expect explanations on the individual steps of the process.

*Refer to chapter 9 and 14 for more information on mapping to relational models and normal forms respectively. The textbook provides a detailed step-by-step process for conversion that should help greatly.*

## 2 How to Draw

You must draw your relational diagram using any digital tool such as [dbdiagram.io](https://dbdiagram.io). Digital/hand drawn illustrations will not be accepted.

### 3 Submission Instructions

Please submit a single PDF from the team named as <teamname>.pdf (without the <and >). The PDF must contain each of the submission requirements mentioned earlier. Ensure that each snapshot/image is on a separate page, preceded by an explanation (if necessary). All the best!