

# Database System

## LAB 2A - Part 2 - Schema Design

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Tables that are included in our database are listed below.

1. Manuscript
2. Manuscript\_feedback
3. Manuscript\_status
4. Author
5. Author\_order
6. RICodes
7. Reviewer
8. Reviewer\_interest
9. Journal
10. Editor

Schema:

1. **Manuscript** ( **manuscript\_int** INT (PK), **idmanuscript\_status** INT (FK), **icode\_icodeID** INT (FK), Manuscript\_title VARCHAR(120), Manuscript\_DateReceived DATETIME, ManuscriptFeedback\_manuscriptFeedback\_id INT (FK), Journal\_idJournal INT (FK))
2. **Manuscript\_feedback** ( **idManuscript\_feedback** INT (PK), **Reviewer\_idReviewer** INT (FK), Appropriateness INT, Clarity INT, Methodology INT, Experimental\_results INT, Manuscript\_manuscript\_status INT (FK), Manuscript\_icode\_icodeID INT, Manuscript\_feedback\_received\_date DATETIME))
3. **Manuscript\_status**( **idManuscript\_status** INT (PK), status VARCHAR(45))
4. **Author**(**author\_id** INT (PK), author\_fname VARCHAR(25), author\_lname VARCHAR(25), author\_email VARCHAR(45) *Nullable* , author\_affiliation VARCHAR(45))
5. **Author\_order**(**Manuscript\_idManuscript** INT (FK), **Author\_idAuthor** INT (FK), order\_number INT)
6. **RICodes**(**icodeID** MEDIUMINT(3)(PK), icode\_interest VARCHAR(64))

7. **Reviewer**(reviewer\_id INT(PK), reviewer\_fname VARCHAR(25), reviewer\_lname VARCHAR(25), reviewer\_email VARCHAR(45), reviewer\_affiliation VARCHAR(45))
8. **Reviewer\_interest**(ReviewerInterest\_id INT (PK), Reviewer\_reviewerID INT (FK), RICodes\_RICodesID INT (FK))
9. **Journal**(idJournal INT (PK), Journal\_edition INT, Journal\_pages INT *nullable* )
10. **Editor**(idEditor INT, fname VARCHAR(25), lname VARCHAR(25), email VARCHAR(45) *nullable*)

#### **Conditions/ Assumptions:**

1. As mentioned in the domain description, a single author can co-author multiple manuscripts. Therefore, the relationship between author and author\_order is 1 to many, i.e one author can have multiple author\_orders.
2. We assume that exactly the same review does not come from multiple reviewers, so the relationship between reviewer and manuscript\_feedback is : 1 reviewer gives zero or many feedbacks.
3. Scenario: In cases where multiple authors are involved in the single manuscript, order has to be maintained. So, a separate table named '**author\_order**' has been designed where we will store the order\_number. Author whose order\_number is '1' will be considered as the primary author whose email address will be stored.
4. Manuscript and Author have many to many relationships, therefore, we have designed a bridge table named "Author\_order", to handle that case.