Author
- idAuthor INT
- authorName VARCHAR(45)
- mailAddress VARCHAR(80)
- emailAddress VARCHAR(45)
- affliation VARCHAR(80)

Indexes

Editor
- idEditor INT
- editorName VARCHAR(45)

Indexes

Manuscript
- idManuscript INT
- title VARCHAR(45)
- date DATETIME
- status VARCHAR(16)
- authorList VARCHAR(200)
- RICode INT
- content BLOB
- typesetPages INT
- idAuthors INT
- idEditors INT
- idRICodes INT

Indexes
- PRIMARY
- fk_idAuthors_Manuscript_idx
- fk_idEditor_Manuscript_idx
- fk_idRICodes_Manuscript_idx

Typesetting
- idManuscript INT
- publicationYear YEAR
- publicationPeriod INT
- beginPage INT
- order INT

Indexes
- PRIMARY
- fk_idManuscript_Typesetting_idx
- fk_publicationYearAndPeriod_Typesetting_idx

Issue
- publicationYear YEAR
- publicationPeriod INT
- volume INT
- pages INT
- printDate DATE

Indexes

Feedback
- idFeedback INT
- appropriateness INT
- clarity INT
- methodology INT
- contribution INT
- recommendation VARCHAR(16)
- dateReceive DATETIME

Indexes

Assignment
- idManuscript INT
- idReviewer INT
- date DATETIME
- idFeedbacks INT

Indexes
- PRIMARY
- fk_idManuscript_Assignments_idx
- fk_idReviewers_Assignment_idx
- fk_idfeedbacks_Assignment_idx

Reviewer
- idReviewer INT
- reviewerName VARCHAR(45)
- emailAddress VARCHAR(45)
- affliation VARCHAR(64)

Indexes

InterestList
- idRICodes INT
- idReviewer INT

Indexes
- PRIMARY
- fk_idRICode_InterestList_idx
- fk_idReviewers_InterestList_idx

RICodes
- idRICodes INT
- interest VARCHAR(64)

Indexes

Relationships: submits, handles, belongs to, has, reviews, belongs to

We use MySQL Workbench to design our ERD model. Since the diagram contains all relation, column names, types and keys. So we submit one diagram as ERD model and Schema.

Some notations you need to know:

◆ is a blue lined filled diamond so it's a NOT NULL simple attribute

◆ is a red colored filled diamond so it's a NOT NULL Foreign Key

◇ is a blue lined not filled diamond so it's a simple attribute which can be NULL

◇ is a red colored not filled diamond so it's a Foreign Key which can be NULL

Manuscript:
        Primary Key: idManuscript;
        Foreign Key:idAuthor, idEditor and idRICodes;
        Nullable: typesetPage and idEditor;

Author:
        Primary Key: idAuthor;
        Foreign Key: Null;
        Nullable: affliation;

Editor:
        Primary Key: idEditor;
        Foreign Key: Null;
        Nullable: Null;

Assignment:
        Primary Key: idManuscript, idReviewer;
        Foreign Key: idManuscript, idReviewer, idFeedback;
        Nullable: idFeedback;

Reviewer:
        Primary Key: idReviewer;
        Foreign Key: Null;
        Nullable: affliation;
Assignment:
        Primary Key: idManuscript, idReviewer;
        Foreign Key: idFeedback;
        Nullable: idFeedback;

Feedback:
        Primary Key: idFeedback;
        Foreign Key: Null;
        Nullable: Null;

Typesetting:

        Primary Key: idManuscript, publicationYear, publicationPeriod;
        Foreign Key: idManuscript, publicationYear, publicationPeriod;
        Nullable: Null;

Issue:

        Primary Key: publicationYear, publicationPeriod
        Foreign Key: Null;
        Nullable: printDate

RICodes:

        Primary Key: idRICodes, idReviewer;
        Foreign Key: idRICodes, idReviewer;
        Nullable: Null;

InterestList:

        Primary Key: idRICodes, publicationPeriod
        Foreign Key: Null;
        Nullable: printDate

In Authors and Reviewers tables, we assume that they can be independent researchers who has no affiliation, therefore the affiliation attribute can be null.

In Assignments table, we assume that idFeedback will be filled only after the editor has received the feedback from the reviewer who has been assigned to review this manuscript.

In Issues table, it would be more convenient to use just publication year and publication period to unique identify one issue which combined publicationYear, publicationPeriod as a compound primary key.