

Scientific Articles Repository Database Design

Entities

1. Article:

- Attributes: ArticleID (PK), Title, Abstract, PublicationDate, DOI, Keywords.

2. Author:

- Attributes: AuthorID (PK), Name, Affiliation, Email, ORCID.

3. Topic:

- Attributes: TopicID (PK), Name, Description.

4. Journal:

- Attributes: JournalID (PK), Name, ISSN, Publisher.

5. Review:

- Attributes: ReviewID (PK), ArticleID (FK), ReviewerID (FK), Date, Content, Recommendation.

6. Reviewer:

- Attributes: ReviewerID (PK), Name, Affiliation, Expertise.

7. Citation:

- Attributes: CitationID (PK), CitingArticleID (FK), CitedArticleID (FK).

8. User:

- Attributes: UserID (PK), Name, Email, Affiliation, Interests.

9. Download:

- Attributes: DownloadID (PK), ArticleID (FK), UserID (FK), Date.

10. Comment:

- Attributes: CommentID (PK), ArticleID (FK), UserID (FK), Content, Date.

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Relationships

1. Authors write Articles: Many-to-Many.
2. Articles belong to Topics: Many-to-One.
3. Articles published in Journals: Many-to-One.
4. Reviewers review Articles: Many-to-Many.
5. Articles cite Articles: Many-to-Many.
6. Users download Articles: Many-to-Many.
7. Users comment on Articles: Many-to-Many.
8. Articles categorized under Journals: One-to-Many (Correction: Duplicate of 3, ignore).