

A database design for a blog publication website will include the following key entities and relationships

Users

- User ID (primary key)
- Username
- Email
- Password

Posts

- Post ID (primary key)
- Title
- Content
- (Featured Image)
- Published Date
- User ID (foreign key referencing Users table)
- Category ID (foreign key referencing Categories table)

Categories

- Category ID (primary key)
- Name
- Description

Comments

- Comment ID (primary key)
- Content
- Timestamp
- User ID (foreign key referencing Users table)
- Post ID (foreign key referencing Posts table)

The key relationships are:

- One user can write many posts, but each post is written by one user (One to Many)
- One post can have many comments, but each comment is on one post (Many to one)
- One user can make many comments, but each comment is made by one user (One to Many)
- One post can belong to one category, but each category can have many posts (One to Many)

Database Diagram :

