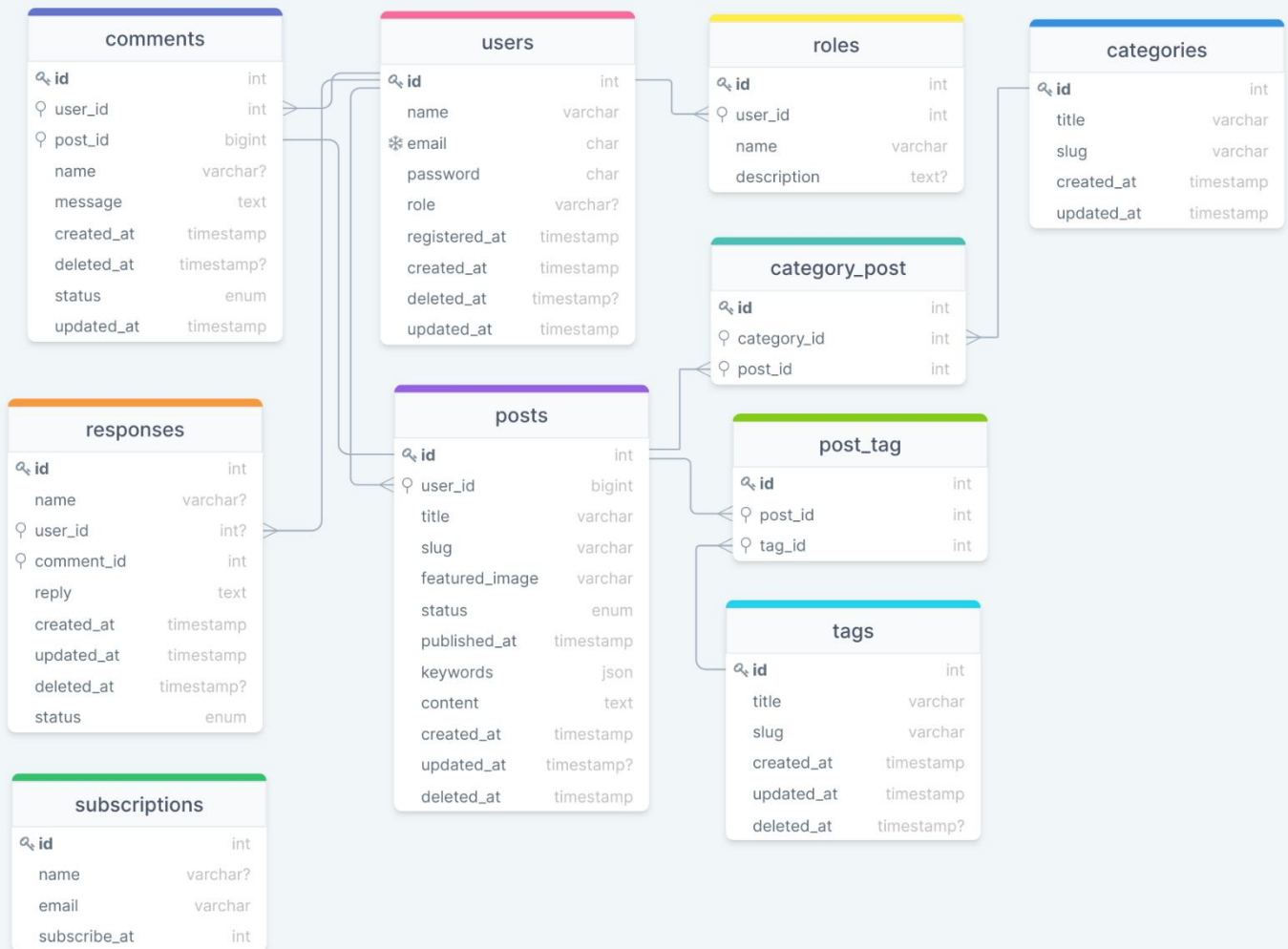


STANDARD CONTENT MANAGEMENT SYSTEM(CMS), ARCHITECTURE AND DESIGN

- 1. Entity Relationship Diagram:** This is the database architecture and design of the whole system.

The message icons on the database column contains comment which can only be view via the link which is here <https://drawsql.app/networker-software/diagrams/bonifade-blog>



Properties, Attribute, symbols and Meaning:

Properties, Attribute and Symbols	Meaning
key	Table primary key, which is also auto-increment
?	The column is nullable, i.e it can be empty
Timestamp	Datetime
Timestamp	Datetime
Int	Numbers
Bigint	Numbers more than 10 digits
Star symbol	It means the column is unique. Incase of email and phone number no email or phone number should be exactly the same.
Boolean	The value of the column can only be True or False
Enum	An enum column can only contain predefined value specify by the programmer. E.g user_role column in users table can only be admin, client, doctor .
_id	Any column that end with _id is a foreign-key constrain. E.g user_id in the roles table with the symbol is a foreign key which is a primary key on user table. It hold the relationship between the two table. This allow us to know the roles that belong to a particular user.

2. RELATIONSHIP

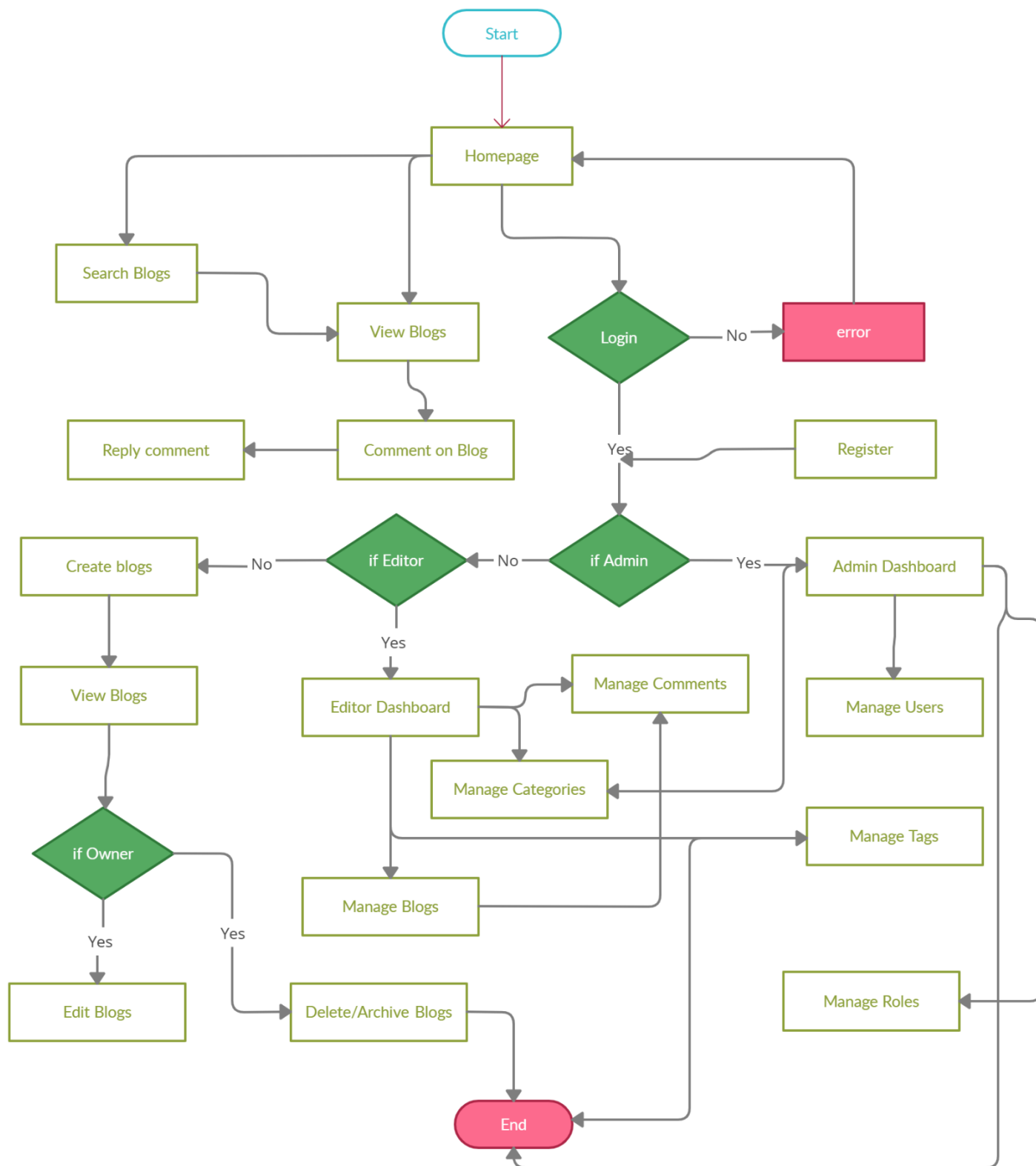
Tables	Relationship type	Explanation
users - roles	one-to-many	A user has many roles while role belongs to a user.
users – posts	one-to-many	user has many posts, while posts belong to user
users – comments	one-to-many	user has many comments, while comments belongs to user
users - responses	one-to-many	user has many responses, while responses belongs to user
posts - comments	one-to-many	post has many comments, while comments belongs to post
Comments - responses	one-to-many	comments have many responses, while responses belong to comment
Category_post	many-to-many	Categories has many posts while posts belong to many categories
Post_tag	many-to-many	posts have many tags while tag belongs to many post

3. USE-CASE DIAGRAM: This is the diagram that shows actors (different users of the system and their respective functions). The users of the system are four in total. Admin has all the access to the system, while the red ovals depicts the functions that only the admin can perform alone.

The manage in the diagram below means **CREATE, EDIT, VIEW AND DELETE**. For example, **manage users** here means, the admin can create users, edit users details, views all users of the system and also delete as well. The same applies to role as well.



4. DATA-FLOW DIAGRAM: This diagram depicts the flow of data or the way flow of operation from start till end.



The manage in the diagram above means **APPROVE , VIEW AND DELETE**. For example, Manage blogs here means, that the Editor can approve blogs after the blogger must have created the blog which the default status of the blog will be in-review and it will be show only when the admin or editor approve it, and the status will changed to approve. it can also delete the blogs as well. **Categories** is the type of news you are posting. E.g. Tech, News update, press release etc. While Tags are keyword associated with the blogs. E.g. If I write a blog concerning job opportunity, I may assign it with these keywords (**jobs, opportunity, work, money, employment**) which are tags that are already created or created at the point of creating the blog as well. So, it's the work of Editor to create categories of blog and tags for blogger to use. It can also delete and adjust them as pleases. The blogger or writer can also create a category or tag, if and only if the type of blog he/she wrote doesn't have any related tags or category. In this case he/she can create new category or tag and associate it with the blog he/she wrote.

EDITED VERSION