Database Design – Flask App

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Table 1: session Table

sessionID (VARCHAR(64))	username (VARCHAR(32))
64 hexadecimal number	testuser

- sessionID
  - A randomly generated 64-digit hexadecimal number
  - This is stored by a cookie set by the website and is used to identify returning users.
  - Returning Users:
    - If a user is returning, it takes the cookie's sessionID and uses it to lookup in username in the session table. If sessionID / cookie is invalid, it creates a **new valid** cookie and assigns the sessionID to the username that is being used to login to the site
  - New Users:
    - If sessionID is not in the table, it does a **redirect()** to a /setcookie page where it sets a new cookie for the user (a randomly generated sessionID) and then it adds the sessionID and username used to login to the session table.
- username
  - username is **chosen by user when they first login to the page**
  - NO PASSWORD IS REQUIRED
  - **As described above, it links username and sessionID to remember returning users**
- Overall, the table is used only for logging users in and retrieving associated usernames with sessionID. **No features of the website is accessible without having a sessionID and username**.
- ALL FIELDS ARE REQUIRED TO BE FILLED

Table 2: users Table

Username (VARCHAR(32))	blogs_written (INT(11))	Joined (DATETIME)
testuser	0	2020-11-20 01:30:23

- username
  - Once user is logged into website, it uses sessionID to link username and store information about the user: blogs_written (how many in total have been written by that user), and date joined (which is recorded when a new user first logs into the site)
- This table is used to display user stats on the Home page (initial page once you are logged in). The stats include join date, number of blogs published, and number of blogs written and saved.
- It is also used to display ALL USERS when user clicks on website tab *View All Users*. This goes through the table, **sorting them alphabetically**, then displaying them as a table to the logged in user.
- ALL FIELDS ARE REQUIRED TO BE FILLED

Table 3: blogs Table

id	username	blog_title	blog_body	date_published	published
22	testuser	(title)	(message)	date	(1 or 0)

- id (INT(11))
  - AUTO_INCREMENT in the database that is the unique identifier of each blog post
- username (same functionality as described above)
- blog_title, blog_body, date_published
  - All are large area text fields. That can take in user input
- published
  - An INT field that's Either 1 or 0. 1 Means the status of that blog is published (where ALL users can see it). 0 Means its "saved" and only the Logged in user can view it.
- This table is used to display **all blogs that are published** in chronological order (starting from most recent posts at top of the page to the oldest post at the end)
- This table is also used for when the user wants to view all **their own saved and not published blogs**. They can then modify the blog and either post or save changes for later. Either way it will submit a form and update the table respectively (if user decides to post a draft of their blog, it updates the blog_body, published status, and the date it was published)
- ALL FIELDS ARE REQUIRED TO BE FILLED