Simple Blog(Edit, Update, Delete)

A Mini Project Report

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22CDT41 - DATABASE MANAGEMENT SYSTEMS



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Problem Statement:

Design and implement a blog management system that allows users to create, edit, delete, and update blog posts in real-time. The system should support user authentication, post categorization, and an administrative interface for content moderation. (RDBMS: Users, Posts, Categories; Backend: CRUD operations, category assignment, user roles, timestamp management).

Github Link:

https://github.com/harinis-14/Blog-DBMS https://github.com/Gowsalya04/Blog-DBMS

Modules and Description:

1. Frontend Pages:

```
index.php – Homepage of your blog showing latest posts.

blog.php – Displays a list of blog posts.

post.php – Shows full content of a single blog post.

category-posts.php – Displays posts under a specific category.

about.php – Static About Us page.

contact.php – Static Contact page.

services.php – Describes services offered (optional).

signup.php & signin.php – Registration and login forms.

logout.php – Ends the user's session.
```

2. Authentication Logic:

```
signup-logic.php – Processes sign-up form data and adds users.
signin-logic.php – Validates login and starts session.
```

3. Admin Panel (Inside admin/folder):

```
add-user.php add-user-logic.php – Add new admin/user.
edit-user.php edit-user-logic.php – Edit admin/user details.
delete-user.php – Delete a user.
manage-user.php – View/manage all users.
```

4.Post Management:

```
add-post-logic.php – Handles post creation.
edit-post.php / edit-post-logic.php – For editing an existing post.
delete-post.php– Deletes a blog post.
```

Category Management:

```
edit-category.php / edit-category-logic.php – Edit category names.

delete-category.php – Delete a category.

manage-categories.php – View/manage all categories.
```

Support Folders:

```
config – Likely holds database config and settings.

css – Stylesheets for your frontend.

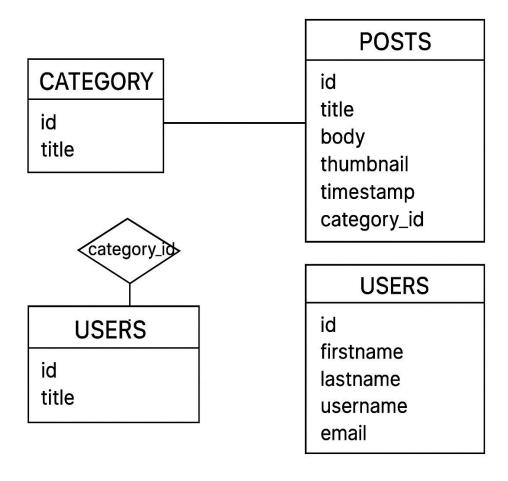
images – Images used in posts or UI.

js – JavaScript files for interactivity.

partials – Reusable components like header, footer.
```



ER Diagram:



Programming Tools:

1. XAMPP:

XAMPP provides the environment to run your PHP-based restaurant billing system locally. It includes:

- **Apache**: Runs your PHP files (like placing or fetching orders).
- MySQL: Stores your blog details, profile details, avatar.
- **phpMyAdmin**: Lets you manage the database easily through a web interface.

You place your project in htdocs and access it at http://localhost/your-project-name.

2.SQL:

SQL (Structured Query Language) is used to interact with the MySQL database for:

- 1. Storing Data
 - o INSERT statements add new users, add blogs, and add avatar.
- 2. Retrieving Data
 - o SELECT queries fetch posts, categories and users.
- 3. Organizing Relationships
 - o SQL joins are used to connect tables like posts, categories, and users.

3. PHP:

PHP (**Hypertext Preprocessor**) is used to handle the **backend logic** of your restaurant billing system. It:

- 1. Connects to the Database
 - Uses MySQLi to connect and run queries.
- 2. Blog Management
 - o Insert new users, avatar and post details into the database.
- 3. Handles API Requests
 - o Files like add post.php, edit post.php, delete post.php, mangeuser.php and manage categories.php return data in JSON format for the frontend.
- 4. Fetches and Sends Data
 - o Receives data from the frontend, processes it, and sends results back.

4. VS CODE:

- Write and Edit Code
 - Create and manage HTML, CSS, JavaScript, PHP, and SQL files.

• Project Management

• Organize all your project files in one place with folder view.

• Syntax Highlighting & Autocomplete

• Makes it easier to code with smart suggestions and color coding.

• Extensions & Debugging

• Use PHP and SQL extensions, and debug code directly in the editor.

5. HTML, CSS, JAVA SCRIPT:

Technology	Use in Your Project
HTML	Builds the structure of the web page (forms, tables, buttons).
CSS	Styles the page – sets colors, layout, fonts, and spacing to make it look good.
JavaScript	Adds interactivity – like adding items to the bill, calculating totals, and sending orders to the server.

Database Design:

■ Table: posts	
Column Name	Data Type
id	INT
title	VARCHAR(255)
body	TEXT
thumbnail	VARCHAR(255)
created_at	DATETIME
category_id	INT
is_featured	TINYINT(1)

Table: users	
Column Name	Data Type
id	INT
firstname	VARCHAR(50)
lastname	VARCHAR(50)
username	VARCHAR(50)
email	VARCHAR(100)
password	VARCHAR(255)
avatar	VARCHAR(255)
is_admin	TINYINT(1)

Table: categories			
Column Name	Data Type		
id	INT		
title	VARCHAR(50)		
description	TEXT		

Query:

1. CREATE TABLE Categories (id INT(11)

AUTO_INCREMENT, title VARCHAR(50), description TEXT);

2. CREATE TABLE Posts(id INT(11)

AUTO_INCREMENT, title VARCHAR(255),body

TEXT,thumbnail VARCHAR(255),date_time

 $TIMESTAMP, category_id\ int (11), author_id\ int (11), is_featured$

TINYINT(11));

3. CREATE TABLE Users(id INT(11)

AUTO_INCREMENT, firstname VARCHAR(50), lastname

VARCHAR(50), email VARCHAR(100), password

VARCHAR(255), avatar VARCHAR(255), is_

TINYINT(11));

```
CODING:
PHP:
DASH BOARD:
<?php
include 'partials/header.php';
$current user id = $ SESSION['user-id'];
$query = "SELECT id, title, category_id FROM posts WHERE
author_id=$current_user_id ORDER BY id DESC";
  $posts =
  mysqli query($connection,
  $query);
  ?>
  <section class="dashboard">
    <?php if (isset($_SESSION['add-</pre>
  post-success'])): ?>
      <div class="alert__message</pre>
  success">
         <?= $_SESSION['add-
  post-success'];
  unset($_SESSION['add-post-
  success']); ?>
```

```
</div>
  <?php elseif
(isset($_SESSION['edit-post-
success'])): ?>
    <div class="alert__message</pre>
success''>
      <?= $_SESSION['edit-
post-success'];
unset($_SESSION['edit-post-
success']); ?>
    </div>
  <?php elseif
(isset($_SESSION['edit-post'])): ?>
<div class="alert_message"</pre>
error">
<?= $_SESSION['edit-post'];
unset($_SESSION['edit-post']);
?>
    </div>
  <?php endif ?>
```

```
<div class="container
dashboard container">
    <aside>

      <
<a href="add-post.php"><i
class="uil uil-pen"></i><h5>Add
Post</h5></a>
<a href="index.php"
class="active"><i class="uil uil-
postcard"></i><h5>Manage
Post</h5></a>
        <?php if
(isset($_SESSION['user_is_admin']
)): ?>
          <a href="add-
user.php"><i class="uil uil-
```

```
plus''></i><h5>Add
User</h5></a>
          <a href="manage-
user.php"><i class="uil uil-user-
plus''></i><h5>Manage
User</h5></a>
          <a href="add-
category.php"><i class="uil uil-
edit''></i><h5>Add
Category</h5></a>
          <
<a href="manage-
categories.php"><i class="uil uil-
list-ul''></i><h5>Manage
Category</h5></a>
        <?php endif ?>
     </aside>
    <main>
```

<h2>Manage Users</h2>

```
<thead>
        Title
Category
Edit
Delete
        </thead>
      <?php while
(post=mysqli\_fetch\_assoc(posts))
:?>
<?php
$category_id =
$post['category_id'];
$category_query = "SELECT title
FROM categories WHERE
id=$category_id";
```

```
$category_result =
  mysqli_query($connection,
  $category_query);
  $category =
  mysqli_fetch_assoc($category_resu
  lt);
?>
<?= $post['title'] ?>
<?= $category['title'] ?>
<a href="<?= ROOT_URL
?>admin/edit-post.php?id=<?=
  $post['id'] ?>" class="btn
  sm''>Edit</a><a
  href="<?= ROOT URL
  ?>admin/delete-post.php?id=<?=
  $post['id'] ?>" class="btn sm
  danger">Delete</a> 
  <?php endwhile ?>
```

```
</main>
   </div>
 </section>
 <?php include
 '../partials/footer.php'; ?>
INDEX:
<?php
require
'config/database.php'; if
(isset(\$\_POST['submit']))
$author_id = $_SESSION['user-id'];
$title = filter_var($_POST['title'],
FILTER_SANITIZE_FULL_SPECIAL_CHARS);
```

{

```
$body = filter_var($_POST['body'],
FILTER SANITIZE FULL SPECIAL CHARS);
$category id = filter var($ POST['category'],
FILTER SANITIZE NUMBER INT);
$is featured = filter var($ POST['is featured'],
FILTER SANITIZE NUMBER INT);
$thumbnail = $ FILES['thumbnail'];
// set is featured to 0 if unchecked
sis featured = (sis featured == 1)? 1 : 0;
// validate form
data if (!$title) {
   $_SESSION['add-post'] = "Enter post title";
   } elseif (!$category id) {
   $_SESSION['add-post'] = "Select post category";
   } elseif (!$body) {
   $ SESSION['add-post'] = "Enter post body";
   } elseif (!$thumbnail['name']) {
   $ SESSION['add-post'] = "Choose post thumbnail";
   } else {
      // WORK ON THUMBNAIL
      // rename the image
```

```
$time = time(); // make each image name unique
        $thumbnail name = $time. $thumbnail['name']:
        $thumbnail tmp name = $thumbnail['tmp name'];
        $thumbnail destination path = '../images/'.$thumbnail name;
        // make sure file is an image
        $allowed_files = ['png', 'jpg', 'jpeg'];
        $extension = explode('.', $thumbnail name);
        $extension=end($extension);
if (in_array($extension, $allowed_files)) {
           // make sure image is not too big.
           (2mb+) if ($thumbnail['size']
           <2 000 000) {
           // upload thumbnail
        move uploaded file($thumbnail tmp name,
$thumbnail destination path);
           } else {
           $_SESSION['add-post'] = "File size too big. Should be less than 2mb";
           } else {
               $ SESSION['add-post'] = "File should be png, jpg, or jpeg";
```

```
move uploaded file($thumbnail tmp name,
          $thumbnail destination path);
          } else {
          $_SESSION['add-post'] = "File size too big. Should be less than
          } else {
             $_SESSION['add-post'] = "File should be png, jpg, or jpeg";
if (isset($_SESSION['add-post'])) {
$ SESSION['add-post-data'] = $ POST;
header('location: '.ROOT URL.
'admin/add-post.php'); die();
 } else{
 if (\$ is featured == 1) {
$zero_all_is_featured_query ="UPDATE posts SET
is featured=0";
$zero all is featured result = mysqli query($connection,
 $zero all is featured query);
 $query = "INSERT INTO posts (title, body, thumbnail,
 category id, author id, is featured) VALUES ('$title', '$body',
'$thumbnail_name', $category_id, $author_id,
$is featured)":
$result = mysqli query($connection,
$query); if
 (!mysqli errno($connection)) {
$ SESSION['add-post-success'] = "New post added successfully";
header('location: '.ROOT URL.
 'admin/'); die();
```

```
}
else{
header('location: '.ROOT_URL .'admin/add-post.php');
die();
ADD CATEGORIES:
<?php
require 'config/database.php';
if (isset($_GET['id'])) {
$id = filter_var($_GET['id'], FILTER_SANITIZE_NUMBER_INT);
// FOR LATER
// udpate category_id of posts that belong to this category to id of
uncategorized category
$update_query = "UPDATE posts SET category_id=5 WHERE
category id=$id'';
$update_result = mysqli_query($connection, $update_query);
if(!mysqli_errno($connection)){
$query = "DELETE FROM categories WHERE id=$id LIMIT 1";
$result = mysqli_query($connection, $query);
$_SESSION['delete-cagory-success'] = "Category deleted successfully";
}
header('location: '.ROOT_URL.'admin/manage-
categories.php'); die();
```

DELETE POST:

```
<?php
require
'config/database.php'; if
(isset($ GET['id'])) {
$id = filter_var($_GET['id'], FILTER_SANITIZE_NUMBER_INT);
// fetch post from database in order to delete thumbnail from images
folder
$query = "SELECT * FROM posts WHERE id=$id";
$result = mysqli_query($connection, $query);
// make sure only 1 record/post was fetched
if (mysqli_num_rows($result) == 1) {
$post = mysqli fetch assoc($result);
$thumbnail name = $post['thumbnail'];
$thumbnail path = '../images/'.
$thumbnail_name; if($thumbnail_path) {
unlink($thumbnail_path);
// delete post from database
$delete_post_query = "DELETE FROM posts WHERE id=$id LIMIT 1";
```

```
$delete post result = mysqli query($connection, $delete post query);
if(!mysqli_errno($connection)) {
$ SESSION['delete-post-success'] = "Post deleted successfully";
header('location: '.ROOT URL
.'admin/');
die();
DELETE USER:
<?php
require
'config/database.php'; if
(isset($_GET['id'])) {
$id = filter_var($_GET['id'], FILTER_SANITIZE_NUMBER_INT);
// fetch user from database
$query = "SELECT * FROM users WHERE id=$id";
$result = mysqli_query($connection, $query);
$user = mysqli_fetch_assoc($result);
// make sure we got back only
one user if
```

```
(mysqli_num_rows($result) ==
1) {
$avatar name = $user['avatar'];
$avatar path = '../images/'. $avatar name;
// delete image if
available if
(\savatar_path) {
unlink($avatar path);
}
}
$thumbnails_query = ''SELECT thumbnail FROM posts WHERE
author_id=$id'';
$thumbnails_result = mysqli_query($connection,
$thumbnails query); if
(mysqli_num_rows($thumbnails_result) > 0) {
while ($thumbnail = mysqli_fetch_assoc($thumbnails_result)) {
$thumbnail path = '../images/' . $thumbnail['thumbnail'];
// delete thumbnail from images folder
is exist if ($thumbnail_path) {
unlink($thumbnail_path);
}}}
// delete user from database
```

```
$delete user guery = "DELETE FROM users WHERE id=$id";
$delete user result = mysqli query($connection,
$delete user query); if (mysqli errno($connection)) {
$ SESSION['delete-user'] =
"Couldn't delete
'{$user['firstname']}'{$user['lastname'
]}'";
else {
$ SESSION['delete-user-success'] = "{$user['firstname']}
{$user['lastname']} deleted successfully'';
header('location: '.ROOT_URL.
'admin/manage-user.php'); die();
}
UPDATE POST:
<?php
require 'config/database.php';
if (isset($_POST['submit'])) {
$id = filter var($ POST['id'], FILTER SANITIZE NUMBER INT);
$previous_thumbnail_name =
filter_var($_POST['previous_thumbnail_name'],
FILTER_SANITIZE_FULL_SPECIAL_CHARS);
```

```
$title =filter var($ POST['title'],
FILTER SANITIZE FULL SPECIAL CHARS);
$body = filter var($ POST['body'],
FILTER_SANITIZE_FULL_SPECIAL_CHARS);
$category id = filter var($ POST['category'],
FILTER SANITIZE NUMBER INT);
$is featured = filter_var($_POST['is_featured'],
FILTER SANITIZE NUMBER INT):
$thumbnail = $ FILES['thumbnail'];
// set is featured to 0 if it was unchecked
sis featured = sis featured == 1?: 0;
// check and validate input
values if (!$title) {
$ SESSION['edit-post'] = "Couldn't update post. Invalid form data on
edit post page.":
} elseif (!$category id) {
$ SESSION['edit-post'] = "Couldn't update post. Invalid form data on
edit post page.";
elseif (!$body) {
$ SESSION['edit-post'] = "Couldn't update post. Invalid form data on
edit post page.";} else {
// delete existing thumbnail if new thumbail is
available if ($thumbnail['name']) {
$previous thumbnail path='../images/'.
```

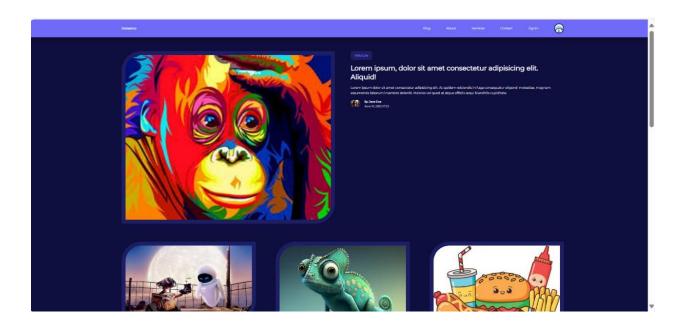
```
$previous thumbnail name; if
($previous thumbnail path) {
unlink($previous thumbnail path);
}
$time = time(); // make each image name upload unique using current
timestamp
$thumbnail name = $time .$thumbnail['name'];
$thumbnail tmp name = $thumbnail['tmp name'];
$thumbnail destination path = '../images/'. $thumbnail name;
// make sure file is an image
$allowed_files = ['png', 'jpg', 'jpeg'];
$extension = explode('.', $thumbnail_name);
$extension=end($extension);
if (in_array($extension,
$allowed files)) { if
($thumbnail['size'] < 2000000) {
// upload avatar
move uploaded file($thumbnail tmp name,
$thumbnail destination path);
} else {
$ SESSION['edit-post'] = "Counldn't update post. Thumbnail size too
big. Should be less than 2mb";
else {
```

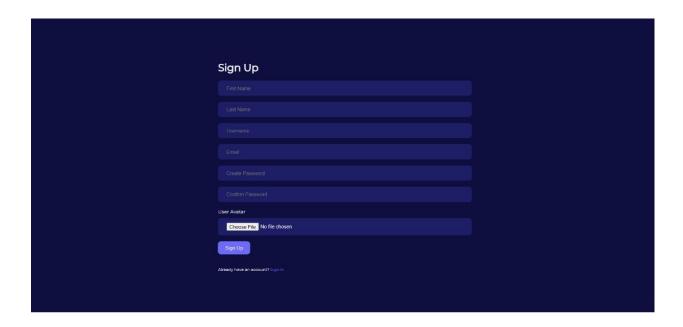
```
$_SESSION['edit-post'] = ''Counldn't update post. Thumbnail should be
png, jpg or jpeg";
if ($ SESSION['edit-post']) {
// redirect to manage form page if form was
invalid header('location: '. ROOT URL.
'admin/');
die():
} else {
// set is featured of all posts to 0 if is featured for this post is
1 if (\$ is featured == 1) {
$zero_all_is_featured_query = "UPDATE posts SET is_featured=0";
$zero all is featured result = mysqli query($connection,
$zero all is featured query);
}
// set thumbnail name if a new one was uploaded, else keep old thumbnail
name
$thumbnail to insert = $thumbnail name ??
$previous_thumbnail_name;
$query = "UPDATE posts SET title='$title', body='$body',
thumbnail='$thumbnail to insert',
category id=$category id, is featured=$is featured WHERE id=$id
LIMIT 1";
$result = mysqli query($connection,
$query);} if
```

```
(!mysqli_errno($connection)) {

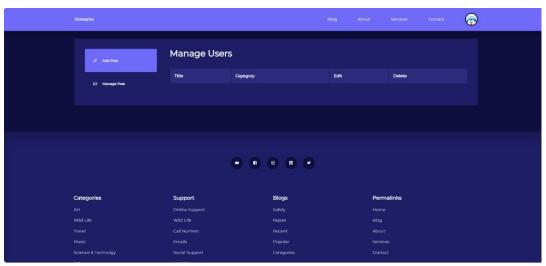
$_SESSION['edit-post-success'] = "Post updated successfully";
}
header('location: '.ROOT_URL
.'admin/');
die();
```

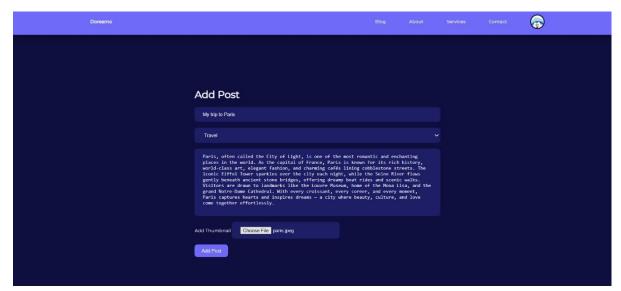
OUTPUT:

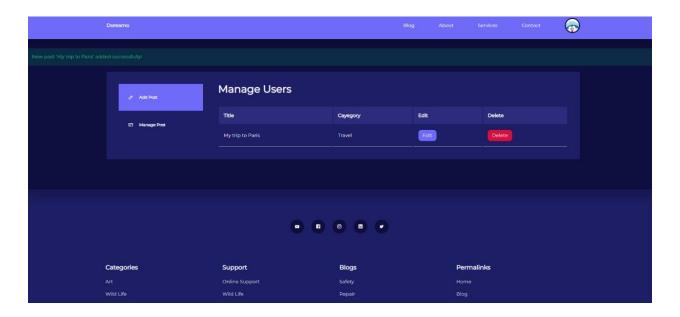


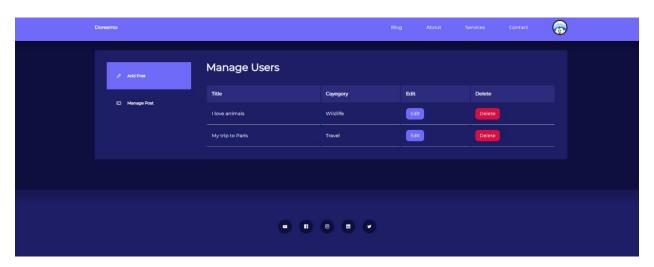




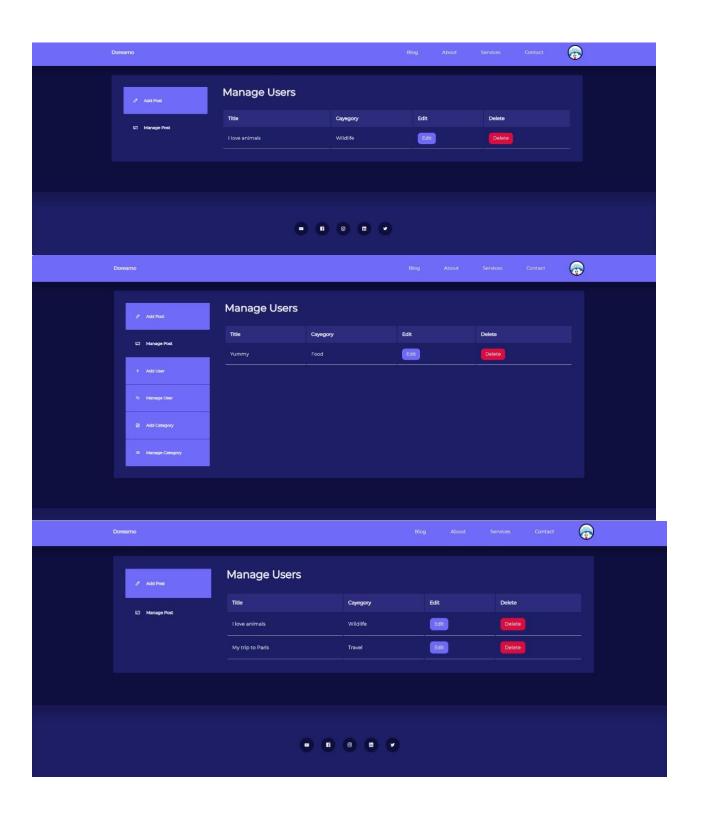


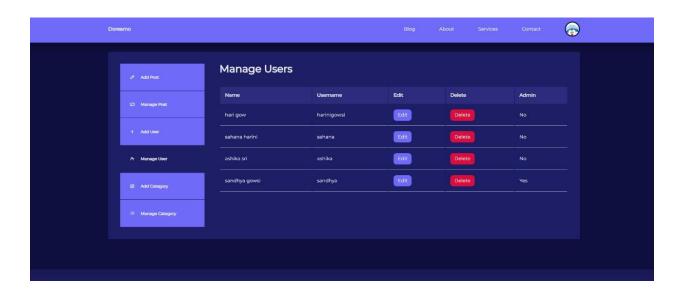


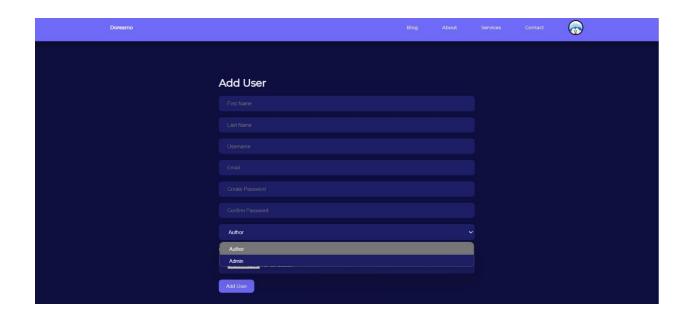


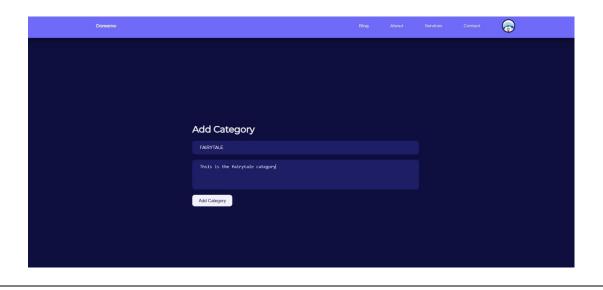


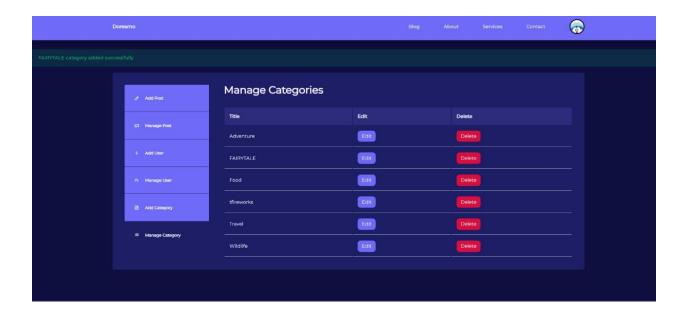












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