CSE370: Database Systems
Project Report
Project Title: BharaHobe

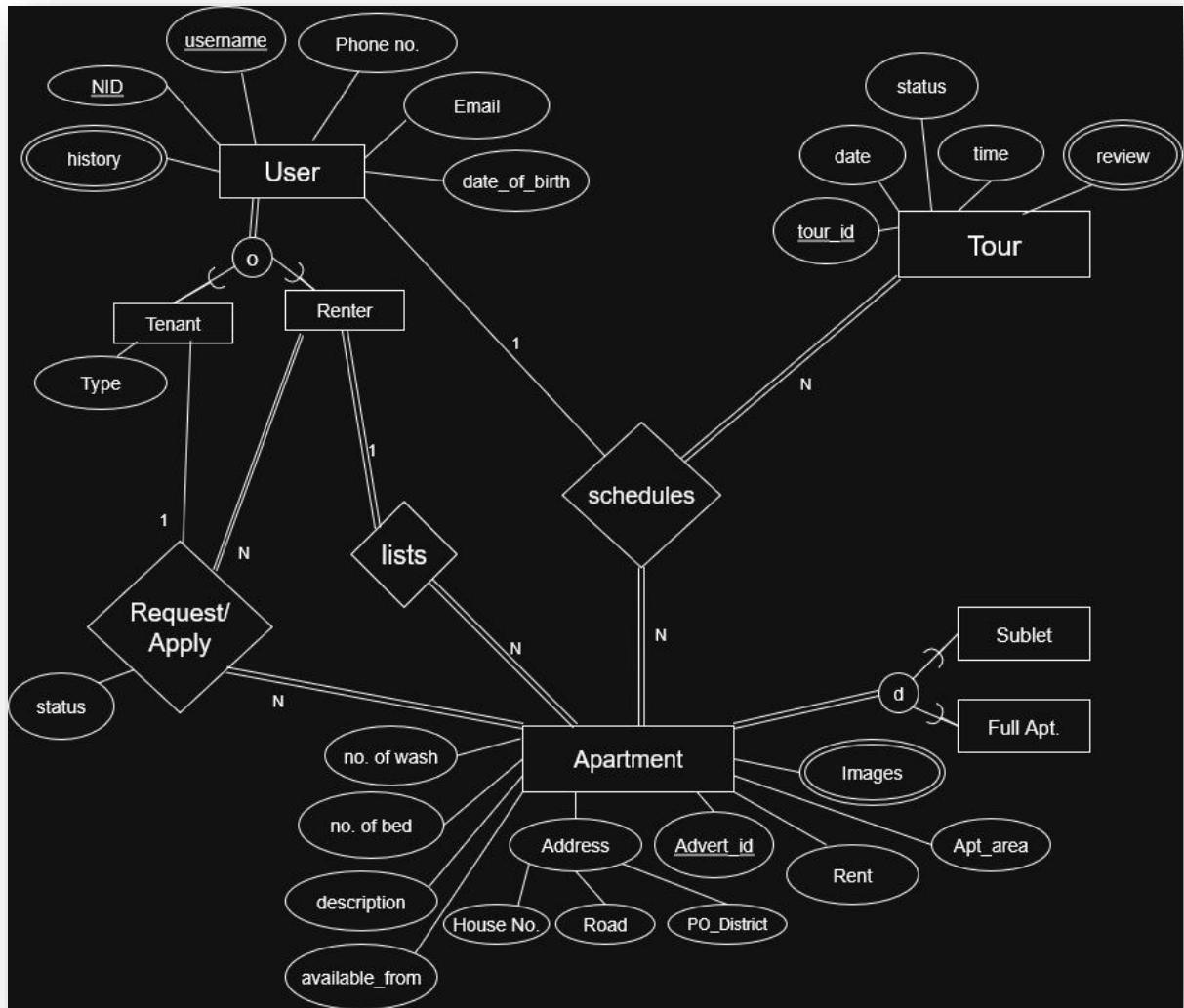| Group No: 16, Lab Section: 16, Summer 2025		
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Introduction

BharaHobe is an online platform where people can post apartment rentals and look for their next home smoothly. Our platform ensures user integrity by maintaining transparency and offers multitude of unique features to make the process of looking for rentals hassle-free with a user-friendly interface.
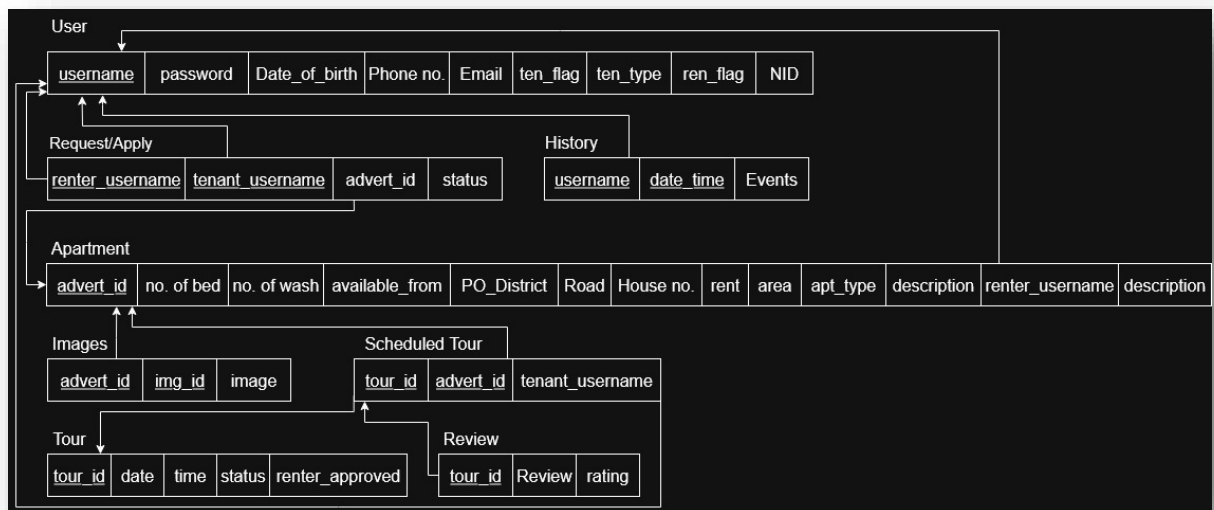
Project Features

1. Home
2. Search
3. User Profile with History and View of Received and Sent Tour, Rental Requests
4. Detailed Apartment Rental Listing
5. Publishing Rental Ad
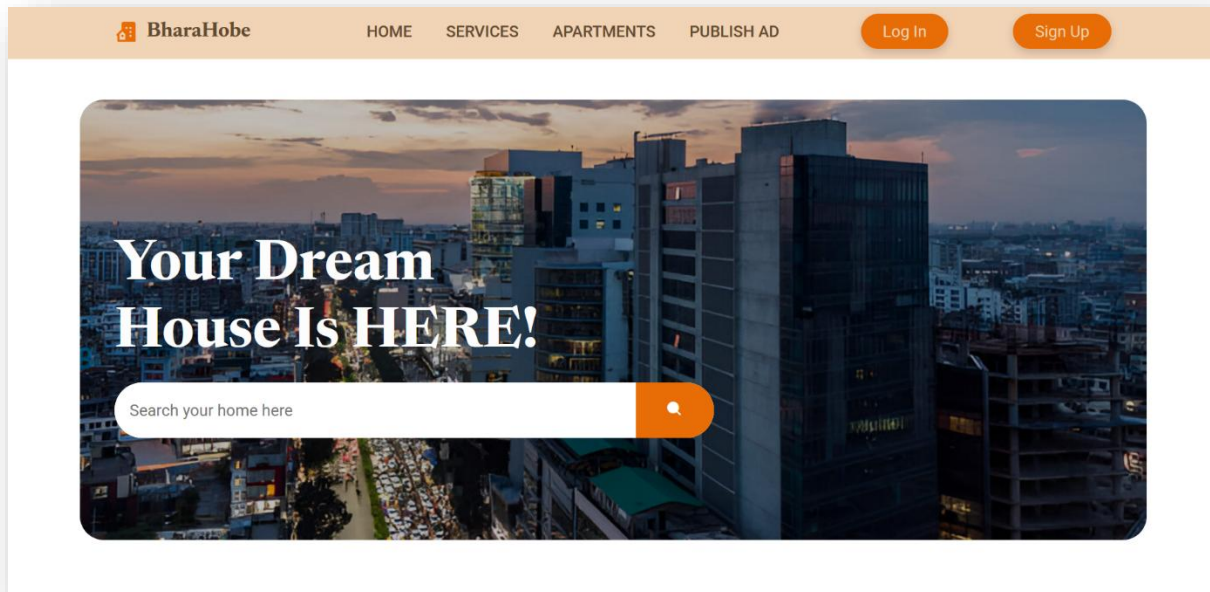6. Scheduling Apartment Tour
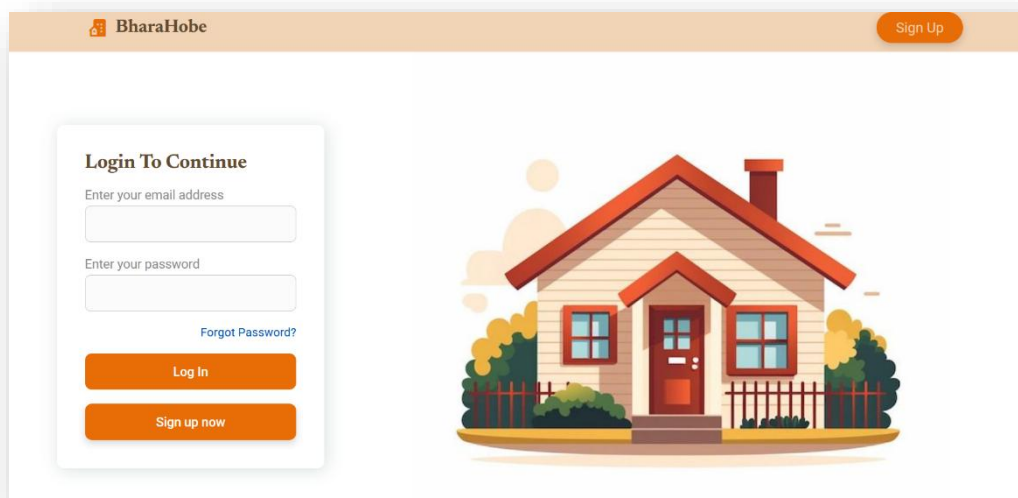7. Reviewing and Rating

ER/EER Diagram

Schema Diagram

User

username	password	Date_of_birth	Phone no.	Email	ten_flag	ten_type	ren_flag	NID

Request/Apply

renter_username	tenant_username	advert_id	status

History

username	date_time	Events

Apartment

advert_id	no. of bed	no. of wash	available_from	PO_District	Road	House no.	rent	area	apt_type	description	renter_username	description

Images

advert_id	img_id	image

Scheduled Tour

tour_id	advert_id	tenant_username

Tour

tour_id	date	time	status	renter_approved

Review

tour_id	Review	rating

Frontend Development

<u>Here are the screenshots of our frontend development</u>

Home (Search Dysfunctional)

Login

Sign Up

Profile View with History and Requests Received

Profile View Showing Request You Made

Rental Listing (Search Fully Functional)

Detailed Apartment View

Scheduling Tour

Publish Ad

Renter's Profile View

Renter Profile after Receiving Tour Request

Tenant Profile after Tour Request is Accepted

Review Page (Redirected to it after pressing Complete in Requests You made)

Detailed Apartment Page (Offering Rental Request Button Now Since Tour is complete)

Renter Received Rental Request

Workflow: First user has to login to access all the features of the website. If account does not exist, one has to sign up.

User can then check profile with history and requests they made. They can also accept and reject tour and rental requests from their profile. Users can also publish ads for their rental apartment with all the necessary information and images.

In Apartments page, users can search for rentals based on location. Clicking on an ad redirects to a dedicated page for the advertisement with detailed information. This page offers the option for tenants to schedule a tour conveniently. Then the renter gets to accept and reject their request on their profile.

If renter accepts their tour request, tenants get the option to complete the tour, which redirects to the review page. After submitting the review, user now will have the option to request for rental. Renter gets to accept and reject this from their profile page as well.

Backend Development

Description

Firstly, we created "dbconnect.php" to create a bridge between the website and the database itself. Then the "index.php" was created to initiate a session, allowing users to log in and sign up through separated pages available at the top.

After logging in, user is redirected to "index.php" in logged in state. Option to view profile (profile.php) and log out (logout.php) becomes available on top. In profile, you can handle tour and receive requests based on whether you're a renter or not through handle_tour_requests.php and handle_rent_requests.php. You can also view apartment ads and publish one by clicking Apartments (apartments.php) and Publish Ad (publishad.php) from the header.

From the Apartments page, you can search for any location. Clicking on an ad redirects user to apartment_details.php and shows info for the ad they clicked, includes images along with tor reviews and shows button to schedule tour (schedule_tour.php) and view renter's profile (renter_profile.php). If user's tour request is accepted, the Complete button in Requests You Made of their profile redirects to review.php through complete_tour.php, allowing them to rate and review the apartment based on the tour.

Rental Request button becomes available after completing a tour in apartment_detail.php.

```php
<?php
$servername="localhost";
$username="root"; //mysql -u root -p
$password="";
$dbname="bharahobe";

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect_error)
{
    die("Connection error: ".  $conn->connect_error); //die makes process die
}
?>
```

dbconnect.php

```php
<?php
session_start();

$logged_in = isset($_SESSION['email']);
if ($logged_in) {
    $username = $_SESSION['username'];
}
else {
    $username = null;
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0 ">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <link rel="stylesheet" href="css/style.css">
    <link rel="stylesheet"
  href="https://cdn.jsdelivr.net/npm/boxicons@latest/css/boxicons.min.css">
    <title>BharaHobe</title>
</head>
<body>
    <header>
        <div class="nav container">
            <a href="index.php" class="logo"><i class='bx  bxs-building-house'></i>BharaHobe</a>
            <input type="checkbox" name="" id="menu">
            <label for="menu"><i class='bx  bxs-menu' id="menu-icon"></i></label>
            <ul class="navbar">
                <?php if ($logged_in): ?>
                    <li><a href="index.php">Home</a></li>
                    <li><a href="#Services">Services</a></li>
```

index.php

```php
1   <?php
2   session_start();
3   require_once('dbconnect.php');
4
5   if (isset($_POST['email']) && isset($_POST['password'])) {
6       $email = $_POST['email'];
7       $password = $_POST['password'];
8
9       $sql = "SELECT * FROM users WHERE email='$email' AND password='$password'";
10      $result = mysqli_query($conn, $sql);
11
12      if ($result && mysqli_num_rows($result) > 0) {
13          $user = mysqli_fetch_assoc($result);
14
15          $username = $user['username'];
16          if ($username === '' || strtolower($username) === 'root') {
17              $username = 'User';
18          }
19
20          $_SESSION['username'] = $username;
21          $_SESSION['email'] = $user['email'];
22
23          header("Location: index.php");
24          exit;
25      }
26      else {
27          header("Location: loginerror.php");
28          exit;
29      }
30  }
31  ?>
```

login.php

15

```php
1    <?php
2    require_once('dbconnect.php');
3
4    if (isset($_POST['username']) && isset($_POST['email']) && isset($_POST['password'])) {
5
6        $username = $_POST['username'];
7        $email    = $_POST['email'];
8        $dob      = $_POST['dob'];
9        $phone    = $_POST['phone'];
10       $nid      = $_POST['nid'];
11       $password = $_POST['password'];
12
13       $check_sql = "SELECT * FROM users WHERE email = '$email' AND nid = '$nid'";
14       $check_result = mysqli_query($conn, $check_sql);
15
16       if (mysqli_num_rows($check_result) > 0) {
17           header("Location: signupexist.php");
18       }
19       else {
20           $insert_sql = "INSERT INTO users (username, email, date_of_birth, nid, phone_no, password, ten_flag, ten_type, ren_flag)
21                          VALUES ('$username', '$email', '$dob', '$nid', '$phone', '$password', 1, NULL, 0);";
22           $result = mysqli_query($conn, $insert_sql);
23
24           if ($result) {
25               mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('$username', 'Joined BharaHobe')");
26               header("Location: signupsuccesslogin.php");
27           }
28           else {
29               header("Location: signupwrong.php");
30           }
31       }
32   }
33   ?>
```

signup.php

```php
1    <?php
2    session_start();
3    require_once('dbconnect.php');
4
5    if (!isset($_SESSION['email'])) {
6        header("Location: login.php");
7        exit;
8    }
9
10   $email = $_SESSION['email'];
11   $logged_in = true;
12
13   // user info
14   $sql = "SELECT username, email, date_of_birth, Phone_no, nid, ten_type, ren_flag FROM users WHERE email = '$email'";
15   $result = mysqli_query($conn, $sql);
16   if (mysqli_num_rows($result) == 0) {
17       header("Location: logout.php");
18       exit;
19   }
20   $user = mysqli_fetch_assoc($result);
21   $username = $user['username'];
22
23   // update tenant type
24   if (isset($_POST['ten_type'])) {
25       $new_type = mysqli_real_escape_string($conn, $_POST['ten_type']);
26       mysqli_query($conn, "UPDATE users SET ten_type='$new_type' WHERE username='$username'");
27       header("Location: profile.php");
28       exit;
29   }
30
31   // history
32   $history_result = mysqli_query($conn, "SELECT * FROM history WHERE username='$username' ORDER BY date_time DESC");
33
34   // requests made //
35   $rent_requests_made = mysqli_query($conn, "
```

```php
31   // history
32   $history_result = mysqli_query($conn, "SELECT * FROM history WHERE username='$username' ORDER BY date_time DESC");
33
34   // requests made //
35   $rent_requests_made = mysqli_query($conn, "
36       SELECT advert_id, status
37       FROM request_apply
38       WHERE tenant_username='$username'
39   ");
40
41   $tour_requests_made = mysqli_query($conn, "
42       SELECT st.tour_id, st.advert_id, t.status, t.renter_approved
43       FROM scheduled_tour st
44       JOIN tour t ON st.tour_id = t.tour_id
45       WHERE st.tenant_username='$username'
46   ");
47
48   // --- Requests Received (for renters) --- //
49   $renter_requests = ['rental' => null, 'tour' => null];
50
51   if ($user['ren_flag'] == 1) {
52       // rental requests received
53       $renter_requests['rental'] = mysqli_query($conn, "
54           SELECT ra.tenant_username, ra.advert_id, ra.status
55           FROM request_apply ra
56           JOIN apartment a ON ra.advert_id = a.advert_id
57           WHERE a.renter_username = '$username' AND ra.status = 'Pending'
58       ");
59
60       // tour requests received
61       $renter_requests['tour'] = mysqli_query($conn, "
62           SELECT st.tour_id, st.tenant_username, st.advert_id, t.status, t.renter_approved
63           FROM scheduled_tour st
64           JOIN tour t ON st.tour_id = t.tour_id
65           JOIN apartment a ON st.advert_id = a.advert_id
66           WHERE a.renter_username = '$username'
67       ");
68   }
```

profile.php

16

```php
<?php
session_start();
require_once('dbconnect.php');

$logged_in = false;
$username = null;

if (isset($_SESSION['email'])) {
    $logged_in = true;
    $username = $_SESSION['username'];

    if ($username === '' || strtolower($username) === 'root') {
        $username = 'Guest';
    }
}

$search = '';
if (isset($_GET['q']) && !empty($_GET['q'])) {
    $search = mysqli_real_escape_string($conn, $_GET['q']);
    $sql = "SELECT advert_id, no_of_bed, no_of_wash, available_from, rent, Road
            FROM apartment
            WHERE Road LIKE '%$search%' OR advert_id LIKE '%$search%'
            ORDER BY advert_id DESC";
} else {
    $sql = "SELECT advert_id, no_of_bed, no_of_wash, available_from, rent, Road
            FROM apartment
            ORDER BY advert_id DESC";
}

$result = mysqli_query($conn, $sql);
?>
```

apartments.php

```php
<?php
session_start();
require_once('dbconnect.php');

$logged_in = false;
$username = null;
if (isset($_SESSION['email'])) {
    $logged_in = true;
    $username = $_SESSION['username'];
}

if (!isset($_GET['id'])) {
    echo "No apartment selected.";
    exit;
}

$advert_id = $_GET['id'];

$sql = "SELECT * FROM apartment WHERE advert_id = '$advert_id'";
$result = mysqli_query($conn, $sql);

if (!$result || mysqli_num_rows($result) == 0) {
    echo "Apartment not found.";
    exit;
}

$apartment = mysqli_fetch_assoc($result);

$img_sql = "SELECT image FROM images WHERE advert_id = '$advert_id' ORDER BY img_id ASC LIMIT 1";
$img_result = mysqli_query($conn, $img_sql);

if ($img_result && mysqli_num_rows($img_result) > 0) {
```

```php
    $img_row = mysqli_fetch_assoc($img_result);
    $img_data = 'data:image/jpeg;base64,' . base64_encode($img_row['image']);
} else {
    $img_data = 'p1.jpg';
}

$reviews_result = mysqli_query($conn, "
    SELECT r.review, r.rating, u.username
    FROM review r
    JOIN scheduled_tour st ON r.tour_id = st.tour_id
    JOIN users u ON st.tenant_username = u.username
    WHERE st.advert_id='$advert_id'
    ORDER BY r.tour_id DESC
");

// check if logged-in user can request rent
$can_request_rent = false;
if ($logged_in) {
    $tour_check = mysqli_query($conn, "
        SELECT t.tour_id
        FROM scheduled_tour st
        JOIN tour t ON st.tour_id = t.tour_id
        WHERE st.advert_id='$advert_id'
          AND st.tenant_username='$username'
          AND t.status='Completed'
        LIMIT 1
    ");
    if (mysqli_num_rows($tour_check) > 0) {
        $can_request_rent = true;
    }
}
?>
```

apartment_details.php

17

```php
<?php
session_start();
require_once('dbconnect.php');

if (!isset($_SESSION['email'])) {
    header("Location: login.php");
    exit;
}

$username = $_SESSION['username'];
$logged_in = isset($_SESSION['email']);

if (isset($_POST['rent']) && isset($_POST['Road'])) {

    $no_of_bed      = $_POST['no_of_bed'];
    $no_of_wash     = $_POST['no_of_wash'];
    $available_from = $_POST['available_from'];
    $PO_District    = $_POST['PO_District'];
    $Road           = $_POST['Road'];
    $House_no       = $_POST['House_no'];
    $rent           = $_POST['rent'];
    $area           = $_POST['area'];
    $apt_type       = $_POST['apt_type'];
    $description    = $_POST['description'];

    $insert_sql = "INSERT INTO apartment
        (renter_username, no_of_bed, no_of_wash, available_from, PO_District, Road, House_no, rent, area, apt_type, description)
        VALUES ('$username', '$no_of_bed', '$no_of_wash', '$available_from', '$PO_District', '$Road',
        '$House_no', '$rent', '$area', '$apt_type', '$description');";

    if (mysqli_query($conn, $insert_sql)) {
        $advert_id = mysqli_insert_id($conn);
        mysqli_query($conn, "UPDATE users SET ren_flag = 1 WHERE username = '$username';");
```

```php
        if (isset($_FILES['images']) && !empty($_FILES['images']['name'][0])) {
            foreach ($_FILES['images']['tmp_name'] as $tmp_name) {
                mysqli_query($conn, "INSERT INTO images (advert_id, image) VALUES ('$advert_id', '".addslashes(file_get_contents($tmp_name))."')");
            }
        }

        $event_msg = "Listed Apartment #$advert_id for rental";
        mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('$username', '$event_msg')");

        $success = "Advertisement published successfully!";
    }
    else {
        $error = "Something went wrong. Please try again.";
    }
}
?>
```

publishad.php

```php
<?php
session_start();
require_once('dbconnect.php');

if (!isset($_SESSION['email'])) {
    header("Location: login.php");
    exit;
}

$username = $_SESSION['username'];
$logged_in = isset($_SESSION['email']);

if (!isset($_GET['id'])) {
    echo "No apartment selected.";
    exit;
}
$advert_id = $_GET['id'];

if (isset($_POST['tour_date']) && isset($_POST['tour_time'])) {
    $tour_date = $_POST['tour_date'];
    $tour_time = $_POST['tour_time'];

    $insert_tour_sql = "INSERT INTO tour (date, time) VALUES ('$tour_date', '$tour_time')";
    if (mysqli_query($conn, $insert_tour_sql)) {
        $tour_id = mysqli_insert_id($conn);

        // Add tenant_username to satisfy foreign key
        mysqli_query($conn, "INSERT INTO scheduled_tour (tour_id, advert_id, tenant_username) VALUES ('$tour_id', '$advert_id', '$username')");

        $user_event = "Scheduled Tour for Apartment #$advert_id";
        mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('$username', '$user_event')");

        $renter_result = mysqli_query($conn, "SELECT renter_username FROM apartment WHERE advert_id='$advert_id' LIMIT 1");
        if ($renter_row = mysqli_fetch_assoc($renter_result)) {
            $renter_username = $renter_row['renter_username'];
```

```php
35          $renter_username = $renter_row['renter_username'];
36          $renter_event = "$username has requested a Tour for Apartment #$advert_id";
37          mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('$renter_username', '$renter_event')");
38      }

40      $success = "Tour scheduled successfully!";
41  }
42  else {
43      $error = "Something went wrong. Please try again.";
44  }
45  }
46  ?>
```

schedule_tour.php

```php
1  <?php
2  session_start();
3  require_once('dbconnect.php');
4
5  if (!isset($_SESSION['email'])) {
6      header("Location: login.php");
7      exit;
8  }
9
10 if (!isset($_POST['tour_id'])) {
11     echo "No tour selected.";
12     exit;
13 }
14
15 $tour_id = $_POST['tour_id'];
16
17 // Fetch advert_id to pass to review page
18 $result = mysqli_query($conn, "SELECT advert_id FROM scheduled_tour WHERE tour_id='$tour_id' LIMIT 1");
19 if ($row = mysqli_fetch_assoc($result)) {
20     $advert_id = $row['advert_id'];
21     // Redirect to review page
22     header("Location: review.php?tour_id=$tour_id&advert_id=$advert_id");
23     exit;
24 } else {
25     echo "Tour not found.";
26     exit;
27 }
28 ?>
```

Php code for completing tour

```php
1  <?php
2  session_start();
3  require_once('dbconnect.php');
4
5  if (!isset($_SESSION['email'])) {
6      header("Location: login.php");
7      exit;
8  }
9
10 $username = $_SESSION['username'];
11
12 if (!isset($_GET['tour_id'], $_GET['advert_id'])) {
13     echo "Invalid request.";
14     exit;
15 }
16
17 $tour_id = $_GET['tour_id'];
18 $advert_id = $_GET['advert_id'];
19
20 if ($_SERVER['REQUEST_METHOD'] === 'POST') {
21     $rating = $_POST['rating'];
22     $comment = mysqli_real_escape_string($conn, $_POST['comment']);
23
24     // Insert review
25     $sql = "INSERT INTO review (tour_id, review, rating) VALUES ('$tour_id', '$comment', '$rating')";
26     mysqli_query($conn, $sql);
27
28     // Mark tour completed
29     mysqli_query($conn, "UPDATE tour SET status='Completed' WHERE tour_id='$tour_id'");
30
31     // Add history entries
32     $tenant_event = "Completed tour and submitted review for Apartment #$advert_id";
33     mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('$username', '$tenant_event')");
34
35     $renter_result = mysqli_query($conn, "SELECT renter_username FROM apartment WHERE advert_id='$advert_id' LIMIT 1");
```

```php
35    $renter_result = mysqli_query($conn, "SELECT renter_username FROM apartment WHERE advert_id='$advert_id' LIMIT 1");
36    if ($row = mysqli_fetch_assoc($renter_result)) {
37        $renter_event = "$username completed the tour and submitted a review for Apartment #$advert_id";
38        mysqli_query($conn, "INSERT INTO history (username, event) VALUES ('{$row['renter_username']}', '$renter_event')");
39    }
40
41    header("Location: profile.php");
42    exit;
43    }
44    ?>
```

review.php

```php
1    <?php
2    session_start();
3    require_once('dbconnect.php');
4
5    if (!isset($_SESSION['email'])) {
6        header("Location: login.php");
7        exit;
8    }
9
10   $email = $_SESSION['email'];
11
12   //renter username
13   $sql_user = "SELECT username FROM users WHERE email='$email'";
14   $res_user = mysqli_query($conn, $sql_user);
15   if (mysqli_num_rows($res_user) == 0) exit("User not found.");
16   $renter_username = mysqli_fetch_assoc($res_user)['username'];
17
18   //tour_id is provided
19   if (!isset($_POST['tour_id'])) {
20       exit("No tour selected.");
21   }
22
23   $tour_id = (int) $_POST['tour_id'];
24
25   // inserting history with function
26   function add_history($conn, $username, $event) {
27       $username = mysqli_real_escape_string($conn, $username);
28       $event = mysqli_real_escape_string($conn, $event);
29       mysqli_query($conn, "INSERT INTO history (username, event, date_time) VALUES ('$username', '$event', NOW())");
30   }
31
32   //advert_id and tenant for this tour
33   $res_tour = mysqli_query($conn, "
34       SELECT st.advert_id, st.tenant_username
35       FROM scheduled_tour st
36       WHERE st.tour_id = $tour_id
37   ");
38   if (mysqli_num_rows($res_tour) == 0) exit("Tour not found.");
39   $tour_info = mysqli_fetch_assoc($res_tour);
```

```php
37   ");
38   if (mysqli_num_rows($res_tour) == 0) exit("Tour not found.");
39   $tour_info = mysqli_fetch_assoc($res_tour);
40   $advert_id = $tour_info['advert_id'];
41   $tenant_username = $tour_info['tenant_username'];
42
43   // accept
44   if (isset($_POST['accept'])) {
45       $sql = "UPDATE tour SET renter_approved='Accepted' WHERE tour_id=$tour_id";
46       if (mysqli_query($conn, $sql)) {
47           add_history($conn, $renter_username, "Accepted Tour Request for Apartment #$advert_id");
48           header("Location: profile.php");
49           exit;
50       } else {
51           exit("Error updating tour: " . mysqli_error($conn));
52       }
53   }
54
55   //reject
56   if (isset($_POST['reject'])) {
57       // delete from scheduled_tour
58       if (!mysqli_query($conn, "DELETE FROM scheduled_tour WHERE tour_id=$tour_id")) {
59           exit("Error deleting from scheduled_tour: " . mysqli_error($conn));
60       }
61
62       // delete from tour table
63       if (!mysqli_query($conn, "DELETE FROM tour WHERE tour_id=$tour_id")) {
64           exit("Error deleting from tour: " . mysqli_error($conn));
65       }
66
67       add_history($conn, $renter_username, "Rejected Tour Request for Apartment #$advert_id");
68       add_history($conn, $tenant_username, "Your Tour Request for Apartment #$advert_id was Rejected");
69
70       header("Location: profile.php");
71       exit;
72   }
73   ?>
```

handle_tour_requests.php

```php
<?php
session_start();
require_once('dbconnect.php');

if (!isset($_SESSION['email'])) {
    header("Location: login.php");
    exit;
}

$renter_username = $_SESSION['username'];

if (!isset($_POST['advert_id'], $_POST['tenant_username'])) {
    echo "Invalid request.";
    exit;
}

$advert_id = $_POST['advert_id'];
$tenant_username = $_POST['tenant_username'];

$status = '';
if (isset($_POST['accept'])) {
    $status = 'Accepted';
} elseif (isset($_POST['reject'])) {
    $status = 'Rejected';
} else {
    echo "No action specified.";
    exit;
}

mysqli_query($conn, "
    UPDATE request_apply
    SET status='$status'
```

```php
    WHERE advert_id='$advert_id' AND tenant_username='$tenant_username'
");

$history_renter = "$status rental request for Apartment #$advert_id from $tenant_username";
mysqli_query($conn, "
    INSERT INTO history (username, event) VALUES ('$renter_username', '$history_renter')
");

$history_tenant = "Your rental request for Apartment #$advert_id was $status";
mysqli_query($conn, "
    INSERT INTO history (username, event) VALUES ('$tenant_username', '$history_tenant')
");

header("Location: profile.php");
exit;
?>
```

handle_rent_requests.php

```php
<?php
session_start();
session_unset();
session_destroy();
header("Location: index.php");
exit();
?>
```

logout.php

Source Code Repository: [BharaHobe](#)

Conclusion

BharaHobe provides a streamlined experience for those who look for apartment rental and publish an ad with its simple user interface, detailed ad view and convenient tour scheduling. The search feature, mandatory review after tour completion, user profile with comprehensive history, handling requests and seeing own request status makes this platform more lucrative. These unique features are essential to hunt for the next house in a practical and secure manner without any extra hassle that we face in real life.