**Service Endpoints**:

**Login Validation**:

Login validation is used to verify and authenticate the login credentials including username and password for a user logging in on p2p rentals. It does this by creating a POST request with the login form once the user clicks the login button. The username and password field are then validated against the users table in the mysql database. This is done by querying the users table for the username and password that the user entered. If a matching record is found, the user is logged in else, the system displays an error message.

<?php

$host="52.91.203.23"

$user="root";

$password="password"

$db="users";

mysql\_connect($host,$user,$password);

mysql\_select\_db($db);

if(isset(['username'])){

    $username=$\_POST['username'];

    $password=$\_POST['password'];

    $sql="select \* from users where username='".$username."' AND password='".$password."' limit 1";

    $result=mysql\_query($sql);

    if(mysql\_num\_rows($result)==1){

        echo "Login successful!";

        exit();

    }

    else{

        echo "Invalid login credentials"

        exit();

    }

}

?>

Success message: Login successful

Error message: Invalid login credentials

Login Workflow:

Diagram

Description automatically generated

**Create new account**:

The create new account endpoint is used when a user wants to create a new account on p2p rentals. The user will fill in the new account details on the new account page and click create. The system will then generate a POST request which will capture all the fields of the form. These variables will then be inserted into the users table. If the values were successfully entered, the system will display new account created successfully, else the system will display an error.

<?php

$host="52.91.203.23"

$user="root";

$password="password"

$db="users";

mysql\_connect($host,$user,$password);

$name=$\_POST['name'];

$username=$\_POST['username'];

$password=$\_POST['password'];

$email=$\_POST['email'];

$street\_address=$\_POST['street\_address'];

$city=$\_POST['city'];

$zip=$\_POST['zip'];

$phone=$\_POST['phone'];

$sql = "INSERT INTO users (name, username, password, email, street\_address, city, zip, phone)

VALUES ('".$name."', '".$username."', '".$password."', '".$email."',

'".$street\_address."', '".$city."','".$zip."','".$phone."')";

if ($conn->query($sql) === TRUE) {

  echo "New account created successfully!";

} else {

  echo "Error: " . $sql . "<br>" . $conn->error;

}

$conn->close();

?>

Success Message: New account created successfully

Error message: Error: Row Insertion

New Account Workflow:

Diagram

Description automatically generated

**Display Images on Home Page**: The home page consists of all the items on the platform with thumbnail images. These images are generated by querying all the items in the items database. This is done using the following:

<?php

$host="52.91.203.23"

$user="root";

$password="password"

$db="items";

mysql\_connect($host,$user,$password);

$sql = "SELECT url FROM items";

                while($row = $result->fetch\_assoc()) {

                    ?>

                    <div id="postleft">

                        <a href="page3.php?id=<?php echo $row["id"] ?>"><img src="<?= $row["url"]; ?>" width="500" height="300"/></a>

                    </div>

                <?php }

                $conn->close();

                ?>

Display Images on Home Page Workflow

Diagram

Description automatically generated with medium confidence

**Display Item View (Rental)**: Once the rent button for an item from the home page is clicked, the thumbnail opens up the item detailed view, which shows the title of the item, the enlarged image of the item, and a description of the item, rental price, payment method, contact info and rental duration. This is done by first using a GET to figure out the id of the item that was clicked from the URL. This id is then queried against the items database to determine the correct information to display on the page as shown below

<div id="container">

            <div class="content">

                <?php

                $id=htmlspecialchars($\_GET["id"]);

                $host="52.91.203.23"

                $user="root";

                $password="password"

                $db="items";

                mysql\_connect($host,$user,$password);

                mysql\_select\_db($db);

                $sql="select \* from items where id='".$id."' limit 1";

                $result = $conn->query($sql);

                $row = $result->fetch\_assoc();

                $title = $row["title"];

                $path = $row["path"];

                $desc = $row["desc"];

                ?>

                <div id="postleft">

                    <div class="topline-container">

                        <div>

                            <h2><?= $title; ?></h2>

                        </div>

                        <div id="topline-links">

                            <a href='page3.php?deleteid=<?= $id; ?>'>DELETE PHOTO</a>

                            &nbsp;&nbsp;&nbsp;

                            <a href="page2.php">GO BACK</a>

                        </div>

                    </div>

                    <img src="<?= $path; ?>"/>

                    <br><br>

                    <p> <b>Item Description: </b></p>

                    <p><b>Rental Price: </b> $30 per weekends, $50 per week, $80 per month</p>

                    <p><b>Payment Method: </b> Credit Card, PayPal, Cash</p>

                    <p><b>Contact Info: </b> (000)-000-0000</p>

                    <p><b>Rental Duration: </b> Weekends, Weekly, Monthly</p>

                </div>

**Display Item View (Stretch Feature-Buy Item)**: Once the buy button for an item from the home page is clicked, the thumbnail opens up the item detailed view, which shows the title of the item, the enlarged image of the item, and a description of the item, buy price, payment method, and contact info. This is done by first using a GET to figure out the id of the item that was clicked from the URL. This id is then queried against the items database to determine the correct information to display on the page as shown below

<div id="container">

            <div class="content">

                <?php

                $id=htmlspecialchars($\_GET["id"]);

                $host="52.91.203.23"

                $user="root";

                $password="password"

                $db="items";

                mysql\_connect($host,$user,$password);

                mysql\_select\_db($db);

                $sql="select \* from items where id='".$id."' limit 1";

                $result = $conn->query($sql);

                $row = $result->fetch\_assoc();

                $title = $row["title"];

                $path = $row["path"];

                $desc = $row["desc"];

                ?>

                <div id="postleft">

                    <div class="topline-container">

                        <div>

                            <h2><?= $title; ?></h2>

                        </div>

                        <div id="topline-links">

                            <a href='page3.php?deleteid=<?= $id; ?>'>DELETE PHOTO</a>

                            &nbsp;&nbsp;&nbsp;

                            <a href="page2.php">GO BACK</a>

                        </div>

                    </div>

                    <img src="<?= $path; ?>"/>

                    <br><br>

                    <p> <b>Item Description: </b></p>

                    <p><b>Buy Price: </b> $30 per weekends, $50 per week, $80 per month</p>

                    <p><b>Payment Method: </b> Credit Card, PayPal, Cash</p>

                    <p><b>Contact Info: </b> (000)-000-0000</p>

                </div>

Display Item View Workflow:

Diagram

Description automatically generated with medium confidence

**Place Order (Rental)**: Triggered by the Place Order button on the Item View-Rental page. This creates a new order and adds it to the transactions table. If the order is successful, it displays a success message and redirects to order confirmation page.

<?php

$host="52.91.203.23"

$user="root";

$password="password"

$db="transactions";

$id=htmlspecialchars($\_GET["id"]);

$userid=htmlspecialchars($\_GET["user\_id"]);

mysql\_connect($host,$user,$password);

$sql="select \* from items where id='".$id."' limit 1";

$result = $conn->query($sql);

$row = $result->fetch\_assoc();

$renter\_id = $row["renter\_id"];

$title = $row["title"];

$path = $row["path"];

$desc = $row["desc"];

$rent\_duration=$row["rent\_duration"];

$sql = "INSERT INTO transactions (renter\_id, rentee\_id, item\_id, item\_name, rent\_duration, rent\_or\_buy)

VALUES ('".$renter\_id."', '".$user\_id."', '".$id."', '".$title."',

'".$rent\_duration.",Rent)";

if ($conn->query($sql) === TRUE) {

  echo "Transaction Successful! Redirecting";

} else {

  echo "Error: " . $sql . "<br>" . $conn->error;

}

$conn->close();

?>

**Place Order (Buy-Stretch)**: Triggered by the Place Order button on the Item View-Buy page. This creates a new order and adds it to the transactions table. If the order is successful, it displays a success message and redirects to order confirmation page.

<?php

$host="52.91.203.23"

$user="root";

$password="password"

$db="transactions";

$id=htmlspecialchars($\_GET["id"]);

$userid=htmlspecialchars($\_GET["user\_id"]);

mysql\_connect($host,$user,$password);

$sql="select \* from items where id='".$id."' limit 1";

$result = $conn->query($sql);

$row = $result->fetch\_assoc();

$renter\_id = $row["renter\_id"];

$title = $row["title"];

$path = $row["path"];

$desc = $row["desc"];

$rent\_duration=$row["rent\_duration"];

$sql = "INSERT INTO transactions (renter\_id, rentee\_id, item\_id, item\_name, rent\_duration, rent\_or\_buy)

VALUES ('".$renter\_id."', '".$user\_id."', '".$id."', '".$title."',

'".$rent\_duration.",buy)";

if ($conn->query($sql) === TRUE) {

  echo "Transaction Successful! Redirecting";

} else {

  echo "Error: " . $sql . "<br>" . $conn->error;

}

$conn->close();

?>

Success message: Transaction successful! Redirecting

Error message: Insertion error

Place Order Workflow:

Diagram

Description automatically generated

**Order Confirmation (Rent)**: This page shows up after a user places a rental order by clicking “place order”. It queries from the transactions table and displays the order number, item title, image of item, item price, payment method, contact info and rental duration.

<div class="content">

    <?php

    $id=htmlspecialchars($\_GET["id"]);

    $host="52.91.203.23"

    $user="root";

    $password="password"

    $db="transactions";

    mysql\_connect($host,$user,$password);

    mysql\_select\_db($db);

    $sql="select \* from transactions where id='".$id."' limit 1";

    $result = $conn->query($sql);

    $row = $result->fetch\_assoc();

    $title = $row["title"];

    $path = $row["path"];

    $price = $row["rent\_price"];

    $payment\_method = $row["payment\_method"];

    $contact\_info = $row["contact\_info"];

    $rent\_duration = $row["rent\_duration"];

    ?>

    <div id="postleft">

        <div class="topline-container">

            <div>

                <h2><?= $title; ?></h2>

            </div>

        </div>

        <img src="<?= $path; ?>"/>

        <br><br>

        <h2>Price</h2>

        <p><?= $price; ?></p>

        <h2>Payment Method</h2>

        <p><?= $payment\_method; ?></p>

        <h2>Contact Info</h2>

        <p><?= $contact\_info; ?></p>

        <h2>Rental Duration</h2>

        <p><?= $rent\_duration; ?></p>

    </div>

**Order Confirmation (Buy-Stretch)**: This page shows up after a user places a buy order by clicking “place order”. It queries from the transactions table and displays the order number, item title, image of item, item price, payment method, contact info.

<div class="content">

    <?php

    $id=htmlspecialchars($\_GET["id"]);

    $host="52.91.203.23"

    $user="root";

    $password="password"

    $db="transactions";

    mysql\_connect($host,$user,$password);

    mysql\_select\_db($db);

    $sql="select \* from transactions where id='".$id."' limit 1";

    $result = $conn->query($sql);

    $row = $result->fetch\_assoc();

    $title = $row["title"];

    $path = $row["path"];

    $price = $row["buy\_price"];

    $payment\_method = $row["payment\_method"];

    $contact\_info = $row["contact\_info"];

    $rent\_duration = $row["rent\_duration"];

    ?>

    <div id="postleft">

        <div class="topline-container">

            <div>

                <h2><?= $title; ?></h2>

            </div>

        </div>

        <img src="<?= $path; ?>"/>

        <br><br>

        <h2>Price</h2>

        <p><?= $price; ?></p>

        <h2>Payment Method</h2>

        <p><?= $payment\_method; ?></p>

        <h2>Contact Info</h2>

        <p><?= $contact\_info; ?></p>

    </div>

Order Confirmation Workflow:

Diagram

Description automatically generated with low confidence

**New Posting**: The new posting page allows a user on the platform to post a new item for rent. The fields required to fill on this page include item name, price, category, rental duration, payment methods, contact method, image upload and description. Once the form is filled completely, the user will click the post button to begin the image posting process. The page will validate the form to make sure all the inputs are valid. The active user id will be obtained using a GET request from the URL. All the other fields will be obtained using a POST request from the form. First the max id from the items table will be queried, which will be used to generate the url of the image path which will be "images/".($max\_id+1).".".$fileActualExt. Next, the record will be inserted into the items table using all the field variables. After that, the file will be uploaded to the image path. Checks will take place to make sure the file is an image file and that it is less than 10 MB and that there is no upload error.

Success Message: Upload Successful! Redirecting

Error Message: File size exceeds 10MB. Please reupload a file that's 10MB or less

Error Message: There was an error uploading the file!"

Error Message: You did not select an image file. Please only upload PNG/JPG/GIF image files.

<?php

    if(isset($\_POST['submit'])){

        $file = $\_FILES['inpFile'];

        $fileName = $\_FILES['inpFile']['name'];

        $fileTmpName = $\_FILES['inpFile']['tmp\_name'];

        $fileSize = $\_FILES['inpFile']['size'];

        $fileError = $\_FILES['inpFile']['error'];

        $fileType = $\_FILES['inpFile']['type'];

        $userid=htmlspecialchars($\_GET["user\_id"]);

        $id = $\_POST['id'];

        $name = $\_POST['name'];

        $price = $\_POST['price'];

        $category = $\_POST['category'];

        $rent\_duration = $\_POST['rent\_duration'];

        $payment\_method = $\_POST['payment\_method'];

        $contact\_method = $\_POST['contact\_method'];

        $description = $\_POST['description'];

        $fileExt = explode('.',$fileName);

        $fileActualExt = strtolower(end($fileExt));

        $host="52.91.203.23"

        $user="root";

        $password="password"

        $db="items";

        mysql\_connect($host,$user,$password);

        mysql\_select\_db($db);

        $allowed = array('jpg','jpeg','png','gif');

        if(in\_array($fileActualExt, $allowed)){

            if($fileError===0){

                if($fileSize<10000000){

                    $sql="select max(id) from items where id='".$id."' limit 1";

                    $result = $conn->query($sql);

                    $row = $result->fetch\_assoc();

                    $max\_id = $row["id"];

                    $fileDestination = "images/".($max\_id+1).".".$fileActualExt;

                    $sql = "INSERT INTO items (userid, id, name, rent\_price, buy\_price, category, rent\_duration, payment\_method, contact\_method, description, url)

                    VALUES ('".$userid."', '".$id."', '".$name."', '".$price."',

                    '".$category."', '".$rent\_duration."', '".$payment\_method."', '".$contact\_method."', '".$description."',

                    '".$fileDestination."')";

                    if ($conn->query($sql) === TRUE) {

                    echo "Upload Successful! Redirecting";

                    } else {

                    echo "Error: " . $sql . "<br>" . $conn->error;

                    }

                    $conn->close();

                    $fileDestination = "images/".($max+1).".".$fileActualExt;

                    move\_uploaded\_file($fileTmpName, $fileDestination);

                }else{

                    echo "File size exceeds 10MB. Please reupload a file that's 10MB or less";

                    exit();

                }

            }

            else{

                echo "There was an error uploading the file!";

                exit();

            }

        }else{

            echo "You did not select an image file. Please only upload PNG/JPG/GIF image files.";

            exit();

        };

    };

?>

New Posting Workflow:

Diagram

Description automatically generated

**Contact Form**: This is the form located on the Contact Us page. It allows users to send a message to the site admin. It uses a POST request to get the users email and the message inputted. The mail is then sent from the users email address to the site admin. A status message is displayed afterwards

Success: Thank you for your feedback

Error: We could not send your feedback. Please try again.

<?php

$email\_address = $\_POST['email\_address'];

$message = $\_POST['message'];

function filter\_email\_header($form\_field) {

return preg\_replace('/[nr|!/<>^$%\*&]+/','',$form\_field);

}

$email\_address  = filter\_email\_header($email\_address);

$headers = "From: $email\_addressn";

$sent = mail('you@sampleemail.com', Contact Form Submission', $message, $headers);

if ($sent) {

?><html>

<head>

<title>Thank You</title>

</head>

<body>

<h1>Thank You</h1>

<p>Thank you for your feedback.</p>

</body>

</html>

<?php

} else {

?><html>

<head>

<title>Something went wrong</title>

</head>

<body>

<h1>Something went wrong</h1>

<p>We could not send your feedback. Please try again.</p>

</body>

</html>

<?php

}

?>

Contact Form Workflow:

Diagram

Description automatically generated with low confidence