



PLOT

OVERVIEW



- Abstract
- Problem Statement
- Overall Features
 - Login
 - Home
 - Google Map
 - Booking
 - Contact us
- Benefits of the system
- Conclusion

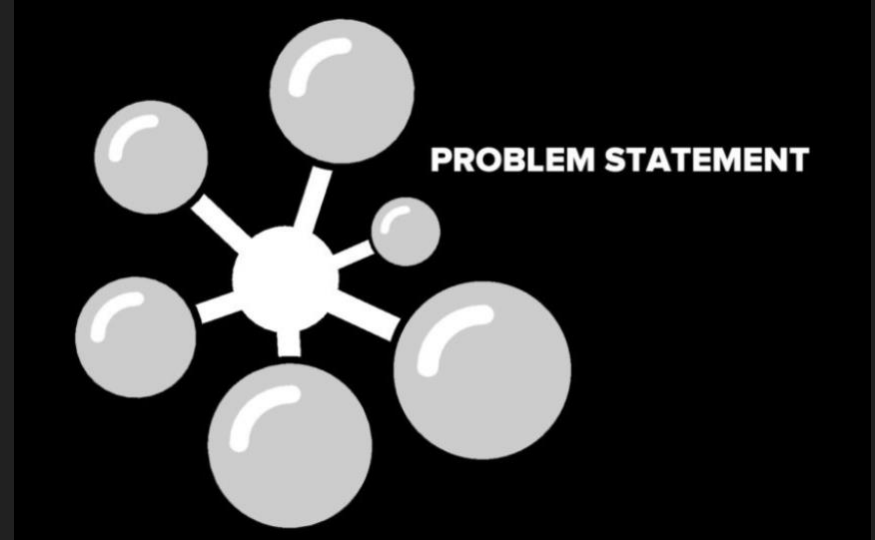
Abstract

- Introduction of congestion pricing was introduced in 1970s
 - To avoid the traffic gridlock
- Electronic Parking System (EPS) is currently deployed nationally
 - Track Car Extting
 - Automated Car Park barrier System
- The Personal transportation vehicles required places to park
 - Provides a convenience payment



Problem Statement

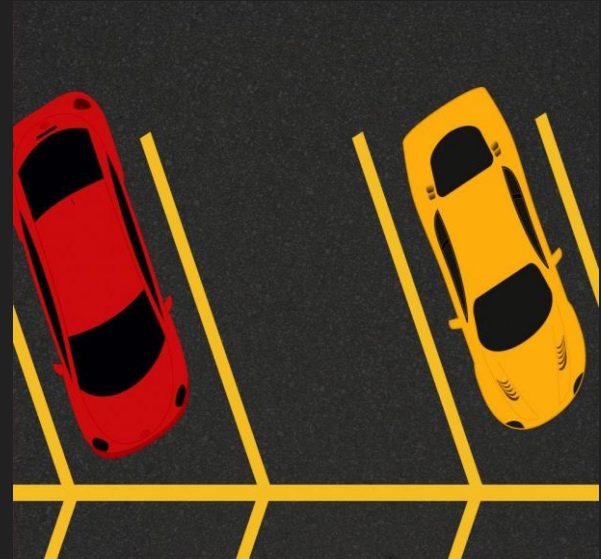
- Increasing amount of cars
 - Car park is not able to meet the demands
- In order to better manage the crowd
 - Online car park booking will be ideal



Overall Features

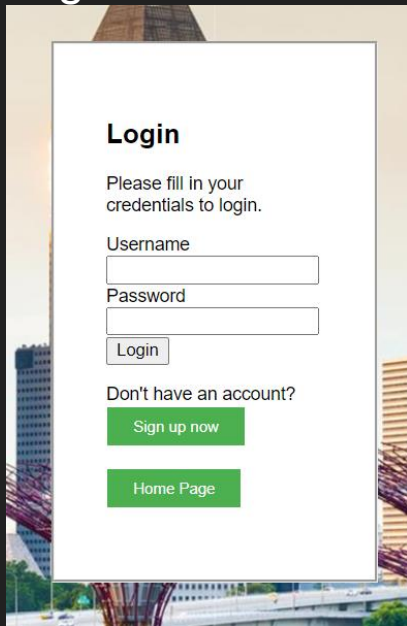
In short, some problems can be resolved with these features

- a) Booking available for users only
- b) Register a new User, Change Password
- c) Locate car park & lots via Google Map
- d) Book and Reserve lot
- e) Contact Us



Proposed Solution

Login



```
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>" method="post">
  <div class="form-group <?php echo (!empty($username_err)) ? 'has-error' : ''; ?>">
    <label>Username</label>
    <input type="text" name="username" class="form-control" value="<?php echo $username; ?>">
    <span class="help-block"><?php echo $username_err; ?></span>
  </div>
  <div class="form-group <?php echo (!empty($password_err)) ? 'has-error' : ''; ?>">
    <label>Password</label>
    <input type="password" name="password" class="form-control">
    <span class="help-block"><?php echo $password_err; ?></span>
  </div>
  <div class="form-group">
    <input type="submit" class="btn btn-primary" value="Login">
  </div>
  <p>Don't have an account? <a href="register.php" class="button">Sign up now</a></p>
  <p><a href="index.php" class="button">Home Page</a></p>
</form>
```

Proposed Solution

Register a new User

Sign Up

Please fill this form to create an account.

Username

Password

Confirm Password

Already have an account?
[Login here.](#)

```
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>" method="post">
  <div class="form-group <?php echo (!empty($username_err)) ? 'has-error' : ''; ?>">
    <label>Username</label>
    <input type="text" name="username" class="form-control" value="<?php echo $username; ?>">
    <span class="help-block"><?php echo $username_err; ?></span>
  </div>
  <div class="form-group <?php echo (!empty($password_err)) ? 'has-error' : ''; ?>">
    <label>Password</label>
    <input type="password" name="password" class="form-control" value="<?php echo $password; ?>">
    <span class="help-block"><?php echo $password_err; ?></span>
  </div>
  <div class="form-group <?php echo (!empty($confirm_password_err)) ? 'has-error' : ''; ?>">
    <label>Confirm Password</label>
    <input type="password" name="confirm_password" class="form-control" value="<?php echo $confirm_password; ?>">
    <span class="help-block"><?php echo $confirm_password_err; ?></span>
  </div>
  <div class="form-group">
    <input type="submit" class="button" value="Submit">
    <input type="reset" class="button" value="Reset">
  </div>
  <p>Already have an account? <a href="login.php">Login here</a>.</p>
</form>
```

Proposed Solution

Reset

Reset Password






Please fill out this form to reset your password.

New Password

Confirm Password

```
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>" method="post">
  <div class="form-group <?php echo (!empty($new_password_err)) ? 'has-error' : ''; ?>">
    <label>New Password</label>
    <input type="password" name="new_password" class="form-control" value="<?php echo $new_password; ?>">
    <span class="help-block"><?php echo $new_password_err; ?></span>
  </div>
  <div class="form-group <?php echo (!empty($confirm_password_err)) ? 'has-error' : ''; ?>">
    <label>Confirm Password</label>
    <input type="password" name="confirm_password" class="form-control">
    <span class="help-block"><?php echo $confirm_password_err; ?></span>
  </div>
  <div class="form-group">
    <input type="submit" class="button" value="Submit">
    <a class="button" href="welcome.php">Cancel</a>
  </div>
</form>
```

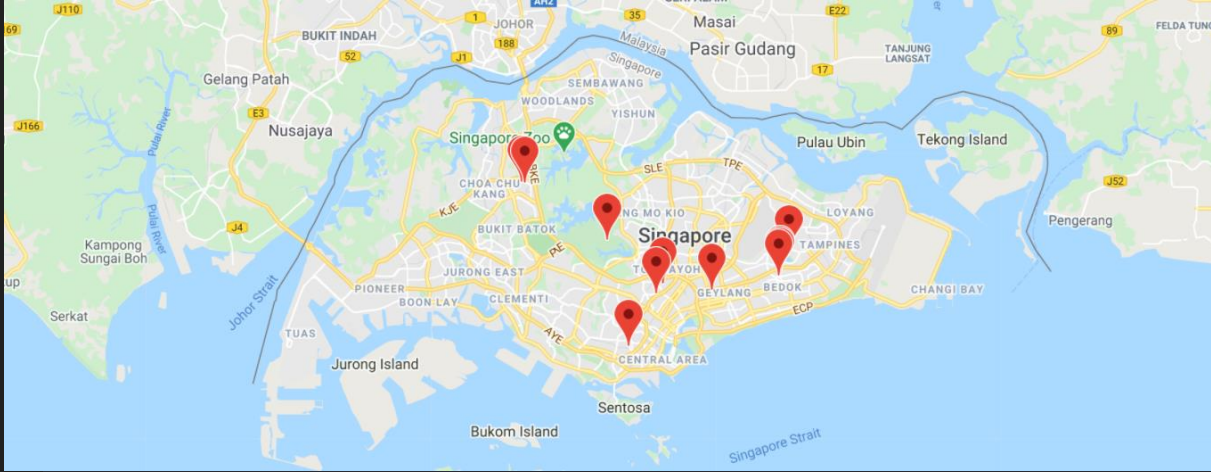

Search Bar function to find available parking lots

Location	Check-In	Check-Out	Vehicle	Time-in	Time-Out
<input type="text" value="Location / City / ZIP"/>	<input type="text" value="dd/mm/yyyy"/> 	<input type="text" value="dd/mm/yyyy"/> 	<input type="text" value="Car"/> 	<input type="text" value="--:-- --"/> 	<input type="text" value="--:-- --"/> 
<input type="button" value="SEARCH"/>					

```
<div class="form-item">
  <label for="select-location">Location </label>
  <input type="text" id="select-location" name="address" placeholder="Enter your destination..." required>
</div>
<div class="form-item">
  <label for="chekin-date">Check-In </label>
  <input type="date" min="2021-03-24" name="enter_date" id="chekin-date" onchange="updatedate();" required>
</div>
```

Proposed Solution

Locate car park & lots via Google Map



```
function initMap() {  
  var singapore = {lat: 1.3521, lng: 103.8198};  
  map = new google.maps.Map(document.getElementById('map'), {  
    zoom: 11,  
    center: singapore  
  });  
}
```

Code use to set map to be located at Singapore

Proposed Solution

Locate car park & lots via Google Map

```
<script async src = "https://maps.googleapis.com/maps/api/js?key=AIzaSyAFJgy-VzJ2Mb67aqbRGkhw6k7V0fYwk&callback=initMap"></script>
```

API Key set to use Google Geocode
API so that data in database would
be able to change address to
geographical coordinate on the map

Proposed Solution

Locate car park & lots via Google Map

```
geocoder = new google.maps.Geocoder();
```

New instance that sends geocode requests to Google servers

Proposed Solution

Lo

```
function codeAddress(cdata){
  Array.prototype.forEach.call(cdata, function(data){
    var address = data.address + ' ' + data.id;
    geocoder.geocode( { 'address': address}, function(results, status){
      if (status == 'OK') {
        map.setCenter(results[0].geometry.location);
        var points = {};
        points.id = data.id;
        points.lat = map.getCenter().lat();
        points.lng = map.getCenter().lng();
        //alert(map.getCenter().lat())
        updateLocationWithLatLng(points);
      } else {
        alert('Geocode was not successful for the following reason: ' + status)
      }
    });
  });
}
```

New Function use to parse address to
return geocode(coordinates) from
google server

Proposed Solution

Locate car park & lots via Google Map

```
function showAllLocation(allData){  
    var infoWind = new google.maps.InfoWindow;  
    Array.prototype.forEach.call(allData, function(data){  
        var content = document.createElement('div');  
        var strong = document.createElement('strong');  
        strong.textContent = data.address;  
        content.appendChild(strong);  
  
        var marker = new google.maps.Marker({  
            position: new google.maps.LatLng(data.lat, data.lng),  
            map: map  
        });
```

Set of code use to read longitude and latitude from database and set markers on map

Proposed Solution

Locate car park & lots via Google Map

```
# set function to read all location  
public function getAllLocation() {  
    $sql = "SELECT * FROM $this->tableName";  
    $stmt = $this->conn->prepare($sql);  
    $stmt->execute();  
    return $stmt->fetchAll(PDO::FETCH_ASSOC);  
}
```

Set of code use to get all data
of location stored in database

Proposed Solution

Locate car park & lots via Google Map

```
marker.addListener('click', function(){  
  infoWind.setContent(content);  
  infoWind.open(map, marker);  
});
```

Set of code use to create info window when marker is clicked on.

Managing Booking

Manage Booking

Booking ID	Customer ID	Address of carpark	Lot ID	Check-In	Check-Out	Action
39	21	BLK 747/752 YISHUN STREET 72	23	2021-04-05 19:30	2021-04-06 20:30	Delete


```
foreach ($rows as $value) {
    ?>
    <tr>
        <td><?php echo $value["bookId"]; ?></td>
        <td><?php echo $value["userId"]; ?></td>
        <td><?php echo $value["address"]; ?></td>
        <td><?php echo $value["lotId"]; ?></td>
        <td><?php echo $value["check_in"]; ?></td>
        <td><?php echo $value["check_out"]; ?></td>
        <td><a class="delete" href="data/delete-booking.php?bookId=<?php echo $value["bookId"]; ?>">Delete</a></td>
    </tr>
    <?php
    }
    ?>
</table>
```

Cart

Cart.

Total \$0.76

BLK 747/752 YISHUN STREET 72
23
2021-04-05 19:30 - 2021-04-06 20:30



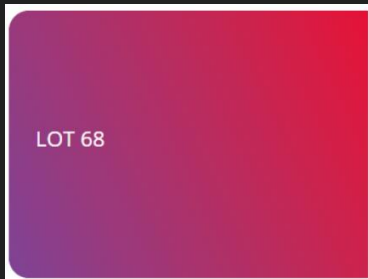
\$0.76

Checkout

```
function confirmBooking() {  
    var myWindow;  
    $.ajax({  
        url: "data/get-cart.php",  
        type: "POST",  
        data: {'cart': item_carts},  
        success: function(data, textStatus, jqXHR) {  
            if(confirm("Confirm Booking?")){  
                window.open("loading.php");  
            }  
            document.getElementById("btn-purchase").innerHTML = myWindow;  
        },  
        error: function(jqXHR, textStatus, errorThrown) {  
            alert('Error occurred!');  
        }  
    });  
}
```

```
for ($i=0; $i < count($cart_items); $i++) {  
    $userId = $_SESSION['id'];  
    $carparkId = $cart_items[$i]['carparkId'];  
    $lotId = $cart_items[$i]['lotId'];  
    $address = $cart_items[$i]['address'];  
    $price = $cart_items[$i]['price'];  
    $check_in = $cart_items[$i]['check_in'];  
    $check_out = $cart_items[$i]['check_out'];  
  
    $insert_booking_query = "INSERT INTO `user_reservation` (`userId`, `carparkId`, `lotId`, `address`, `price`, `check_in`, `check_out`)  
        VALUES ('{$userId}', '{$carparkId}', '{$lotId}', '{$address}', '{$price}', '{$check_in}', '{$check_out}')";  
    $result = $db->query($insert_booking_query);  
}
```

Browsing carpark

LOT 68

Location
BLK 153-167 BISHAN STREET 13

Add to Cart

\$0.76


```
if (count($_POST) > 0) {  
    $address = $_POST["address"];  
    $desired_checkin = $_POST["enter_date"] . " " . $_POST["enter_time"];  
    $desired_checkout = $_POST["exit_date"] . " " . $_POST["exit_time"];  
    $search_list_carparkIDs_query = "select * from user_reservation where address like '%{$address}%' AND check_in='';"  
  
    $result = $db->query($search_list_carparkIDs_query);  
    $rows = $db->fetch($result);  
}
```

Proposed Solution

Contact Us

ANY QUESTIONS? CONTACT US HERE

Your e-mail

Your name  Please fill out this field.

Your message

Choose File No file chosen

Submit

```
<form class="customform" method="post" enctype="multipart/form-data">  
  <div><input name="email" placeholder="Your e-mail" title="e-mail" type="text" required /></div>  
  <div><input name="username" placeholder="Your name" title="username" type="text" required /></div>  
  <div><textarea placeholder="Your message" name="message" rows="5" required></textarea></div>  
  <input type="File" name="file">  
  <input type="submit" name="submit">  
</form>
```

Proposed Solution

Contact Us

```
#upload directory path
$uploads_dir = 'files';
#TO move the uploaded file to specific location
move_uploaded_file($tname, $uploads_dir.'/'.$pname);

#sql query to insert into database
$sql = "INSERT into upload3(email,username,message,file) VALUES('$email','$username','$message','$pname')";

if(mysqli_query($conn,$sql)){
    $alert = "<script>alert('Thank You for your Feedback!');</script>";
    echo $alert;
}
else{
    $Error = "<script>alert('There seems to be an error! Please try ');</script>";
    echo $Error;
}
```

Benefits for the users

- Guaranteed parking lot & Optimized parking
- Increased safety
 - Real-time data to prevent suspicious activity and parking violations
- Reduction in traffic
 - Less cars are needed to drive around searching for an open parking space
- Improved User Experience
 - Ensure easy payment
 - Location search
 - Time and spot notifications



Conclusion

Abstract

Problem Statement

Overall Features & Demo

Benefits

