

**Lab No:** Project Part 7

**Lab Title:** Program and deploy a Database-Driven Web Application

**Objective:** At the end of the lesson, students will be able to develop and deploy a database-driven web application to implement the functional requirements in accordance with the application requirements specification

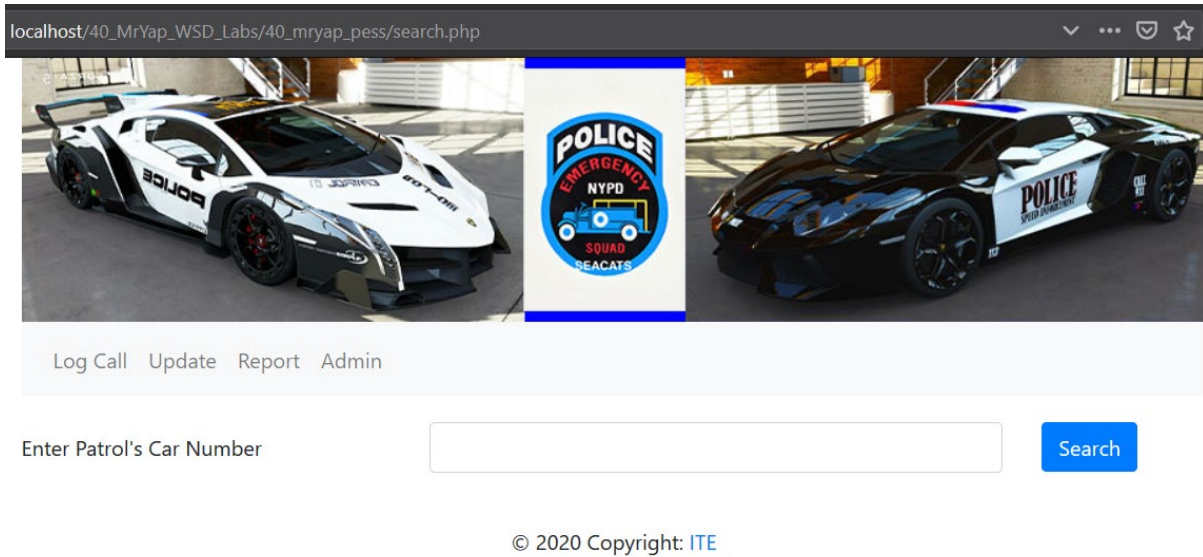
**Resources:**

1. Development Computer.
2. Apache server, MySQL, and phpmyadmin
3. Code editor.

**Procedures:**

**update.php**

4. You will now construct the page called **update.php** to perform the following functions:
  - 4.1. Enable the operator to update the status of a patrol car;
  - 4.2. System will record the arrival time of the patrol car when the status is Arrived;
  - 4.3. System will record the completion time of the patrol car when the status is Free;
  - 4.4. When the statuses of all attending patrol cars are Free, then the system also update the status of incident to Completed.
  - 4.5. Return to **logcall.php** when update is completed.
4. Click on the **Update** menu on the navigation bar will bring up the following screen:



localhost/40\_MrYap\_WSD\_Labs/40\_mryap\_pess/search.php

Log Call Update Report Admin

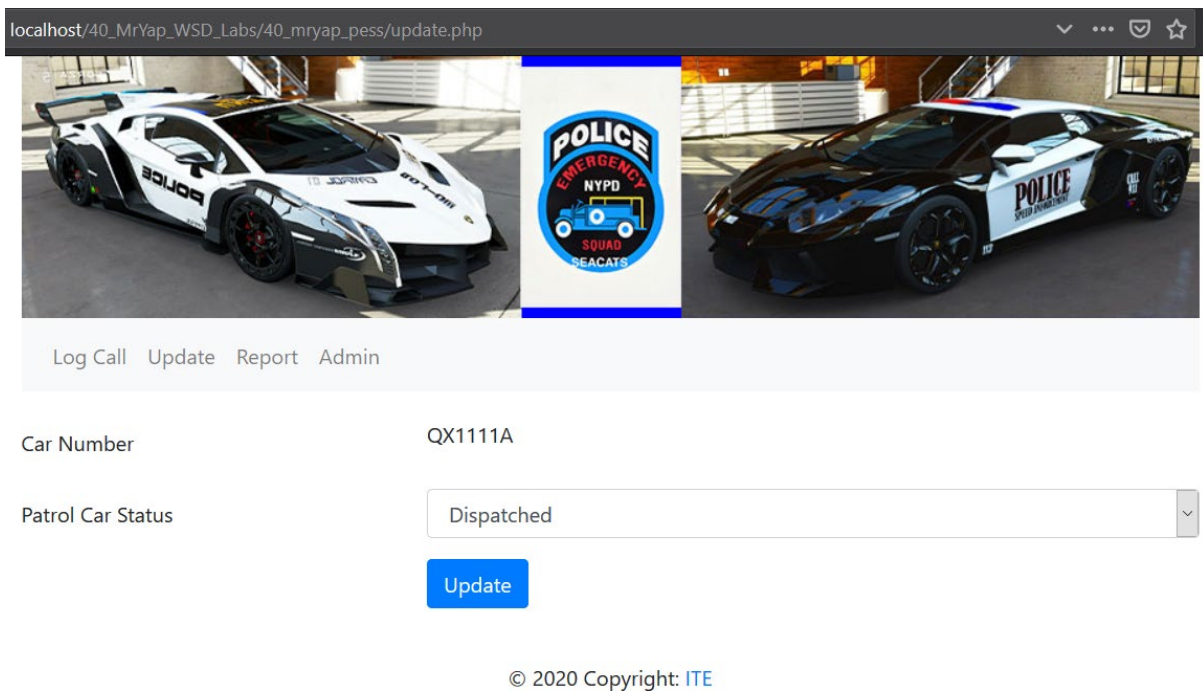
Enter Patrol's Car Number

Search

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Figure 1

5. Enter the patrol car ID and click the **Search** button will bring up the following screen:



localhost/40\_MrYap\_WSD\_Labs/40\_mryap\_pess/update.php

Log Call Update Report Admin

Car Number QX1111A

Patrol Car Status Dispatched

Update

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Figure 2

6. Select the desired status in **Status** drop down box and click the **Update** button and the system will carry out the operations listed in para 4.

## Part 1

7. In your code editor, create a new file called **search.php** and add the code to create a web form as shown in Figure 1:

```

1 <!doctype html>
2 <html>
3   <head>
4     <meta charset="utf-8">
5     <title>Search Patrol Car</title>
6     <link href="css/bootstrap-4.3.1.css" rel="stylesheet" type="text/css">
7     <style type="text/css"></style>
8   </head>
9
10  <body>
11    <div class="container" style="width: 930px">
12      <header>
13        
14      </header>
15      <?php
16        require_once 'nav.php';
17      ?>
18      <section style="margin-top: 20px">
19        <form action="update.php" method="POST">
20          <div class="form-group row">
21            <label for="patrolCarId"
22              class="col-sm-4 col-form-label">
23              Enter Patrol's Car Number
24            </label>
25            <div class="col-sm-6">
26              <input type="text" class="form-control"
27                name="patrolCarId"
28                id="patrolCarId">
29            </div>
30            <div class="col-sm-2">
31              <input class="btn btn-primary" type="submit"
32                name="btnSearch"
33                value="Search">
34            </div>
35          </div>
36        </form>
37      </section>
38      <footer
39        class="page-footer font-small blue pt-4
40        footer-copyright text-center py-3">
41        Â© 2020 Copyright: <a href="https://www.ite.edu.sg"> ITE</a>
42      </footer>
43    </div>
44    <script type="text/javascript" src="js/jquery-3.3.1.min.js"></script>
45    <script type="text/javascript" src="js/popper.min.js"></script>
46    <script type="text/javascript" src="js/bootstrap-4.3.1.js"></script>
47  </body>
48 </html>

```

## Part 2

8. In your code editor, create another new file called **update.php** and write the code to handle the post back triggered by clicking the **Search** button from the **search.php**.

```

1 <?php
2 $btnSearchClicked = isset($_POST["btnSearch"]);
3 $statuses = [];
4 $car = null;
5
6 if($btnSearchClicked == true) {
7     require_once 'db.php';
8
9     $conn = new mysqli(DB_SERVER, DB_USER, DB_PASSWORD, DB_DATABASE);
10
11     if ($conn->connect_error) {
12         die("Connection failed: " . $conn->connect_error);
13     }
14
15     $carId = $_POST['patrolCarId'];
16
17     $sql = "SELECT * FROM patrolcar WHERE patrolcar_id = '" . $carId . "'";
18     $result = $conn->query($sql);
19
20     if ($row = $result->fetch_assoc()) {
21         $id = $row['patrolcar_id'];
22
23         $statusId = $row['patrolcar_status_id'];
24         $car = ["id" => $id,
25                 "statusId" => $statusId
26             ];
27     }
28
29     $sql = "SELECT * FROM patrolcar_status";
30     $result = $conn->query($sql);
31
32     while ($row = $result->fetch_assoc()) {
33         $id = $row['patrolcar_status_id'];
34         $desc = $row['patrolcar_status_desc'];
35         $status = ["id" => $id,
36                   "desc" => $desc
37             ];
38         array_push($statuses, $status);
39     }
40
41     $conn->close();
42 }
43 ?>

```

9. Write the code to display the patrol car and its status found in para 9.

```

44 <!doctype html>
45 <html>
46 <head>
47 <meta charset="utf-8">
48 <title>Update Patrol Car Status</title>
49 <link href="css/bootstrap-4.3.1.css" rel="stylesheet" type="text/css">
50 <style type="text/css"></style>
51 </head>
52
53 <body>
54 <div class="container" style="width:930px">
55   <header>
56   </header>
57   <?php
58     require_once 'nav.php';
59   ?>
60   <section style="margin-top:20px">
61     <form action="update.php" method="POST">
62       <?php
63         if($car != null) {
64           echo '<div class="form-group row">';
65           echo '  <label for="patrolCarId"
66             class="col-sm-4 col-form-label">Car Number</label>';
67           echo '  <div class="col-sm-8">';
68           echo $car['id'];
69           echo '<input type="hidden" name="patrolCarId"
70             id="patrolCarId" value="' . $car['id'] . '">';
71           echo '  </div>';
72           echo '</div>';
73
74           echo '<div class="form-group row">';
75           echo '  <label for="carNo" class="col-sm-4
76             col-form-label">Patrol Car Status</label>';
77           echo '  <div class="col-sm-8">';
78           echo '    <select id="carStatus" class="form-control"
79             name="carStatus">';
80             $totalStatus = count($statuses);
81             for($i = 0; $i<$totalStatus; $i++) {
82               $status = $statuses[$i];
83               $selected = "";
84               if($status['id'] == $car['statusId']) {
85                 $selected = ' selected="selected"';
86               }
87               echo '<option value="' . $status['id'] . '" .
88                 $selected . ">" .
89                 $status['desc'] .
90                 '</option>';
91               $selected = "";
92             }

```

```
93°         echo '    </select>';
94°         echo '    </div>';
95°         echo '</div>';
96°     }
97°     else {
98°         echo '<div class="form-group row">';
99°         echo '    <div class="col-sm-12">No records found.</div>';
100°        echo '</div>';
101°    }
102°    ?>
103°    <div class="form-group row">
104°        <div class="col-sm-4"> </div>
105°        <div class="col-sm-8">
106°            <input class="btn btn-primary" type="submit" value="Update"
107°                name="btnUpdate">
108°        </div>
109°    </div>
110° </form>
111° </section>
112° <footer class="page-footer font-small blue pt-4 footer-copyright
113°     text-center py-3">
114°     Â© 2020 Copyright: <a href="https://www.ite.edu.sg"> ITE</a>
115° </footer>
116° </div>
117° <script type="text/javascript" src="js/jquery-3.3.1.min.js"></script>
118° <script type="text/javascript" src="js/popper.min.js"></script>
119° <script type="text/javascript" src="js/bootstrap-4.3.1.js"></script>
120° </body>
121° </html>
```

## Part 3

10. Write the code to handle the post back triggered by clicking the **Update** button in the **update.php**.

```

44- $btnUpdateClicked = isset($_POST["btnUpdate"]);
45- if($btnUpdateClicked == true) {
46-     require_once 'db.php';
47-     $updateSuccess = FALSE;
48-
49-     $conn = new mysqli(DB_SERVER, DB_USER, DB_PASSWORD, DB_DATABASE);
50-
51-     if ($conn->connect_error) {
52-         die("Connection failed: " . $conn->connect_error);
53-     }
54-
55-     $newStatusId = $_POST['carStatus'];
56-     $carId = $_POST['patrolCarId'];
57-
58-     $sql = "UPDATE patrolcar SET patrolcar_status_id = '" . $newStatusId .
59-     "' WHERE patrolcar_id = '" . $carId . "'";
60-
61-     $updateSuccess = $conn->query($sql);
62-     if ($updateSuccess===FALSE) {
63-         echo "Error: " . $sql . "<br>" . $conn->error;
64-     }
65-
66-     /* if patrol car status is Arrived (4) then capture the time of arrival */
67-     if ($newStatusId == '4'){
68-         $sql = "UPDATE dispatch SET time_arrived = NOW() " .
69-         | " WHERE time_arrived is NULL " .
70-         | " AND patrolcar_id = '" . $carId . "'";
71-
72-         $updateSuccess = $conn->query($sql);
73-         if ($updateSuccess===FALSE) {
74-             echo "Error: " . $sql . "<br>" . $conn->error;
75-         }
76-     }
77-
78-     /* else if status is FREE (3) then capture the time of completion */
79-     else if ($newStatusId == '3') {
80-
81-         /* First, retrieve the incident ID from dispatch table
82-         handled by that patrol car */
83-         $sql = "SELECT incident_id FROM dispatch" .
84-         | " WHERE time_completed IS NULL " .
85-         | " AND patrolcar_id = '" . $carId . "'";
86-
87-         $result = $conn->query($sql);
88-
89-         $incidentId = 0;
90-         if ($result->num_rows > 0) {
91-             if ($row = $result->fetch_assoc()) {
92-                 $incidentId = $row['incident_id'];

```

```
93     }
94 }
95
96 // next update dispatch table
97 $sql = "UPDATE dispatch SET time_completed = NOW() " .
98       " WHERE time_completed is NULL " .
99       " AND patrolcar_id = '" . $carId . "'";
100
101 $updateSuccess = $conn->query($sql);
102 if ($updateSuccess===FALSE) {
103     echo "Error: " . $sql . "<br>" . $conn->error;
104 }
105
106 /* update incident table to completed (3) */
107 $sql = "UPDATE incident SET incident_status_id = '3' " .
108       " WHERE incident_id = '" . $incidentId . "'";
109 $updateSuccess = $conn->query($sql);
110 if ($updateSuccess===FALSE) {
111     echo "Error: " . $sql . "<br>" . $conn->error;
112 }
113 }
114 $conn->close();
115
116 if($updateSuccess === TRUE) {
117     header("Location: search.php");
118 }
119 }
120 ?>
```