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AIM : Create application which perform basic functionalities like insert, update, delete and display records with database-Inventory Management

Code:

```
const url = require('url');
const express = require('express');
const bodyParser = require('body-parser');
const mysql = require('mysql');
const app = express();
const port = 4590;

app.use(bodyParser.urlencoded({ extended: false }));

var con = mysql.createConnection({
  host: 'localhost',
  user: 'root',
  password: '',
  database: 'inventory'
});

con.connect(function (err) {
  if (err) {
    console.log(err.message);
  }
  console.log("Connected!");
});

app.get('/', (req, res) => {
  var fetchedData = 'select * from products';
  con.query(fetchedData, (err, result) => {
    if (err) {
      console.error('Error fetching data: ' + err.message);
      res.status(500).send('Error fetching data from the database');
    }
    else {
      const tableRows = result.map((product) =>
        <tr>
```

```
        <td>${product.name}</td>
        <td>${product.price}</td>
        <td>${product.dealer}</td>
    </tr>
    `);
    const html = `
<!DOCTYPE html>
<html>

<head>
    <title>Inventory Management</title>
    <style>
/* Reset some default styles */
body,
h1 {
    margin: 0;
    padding: 0;
}

body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    text-align: center;
}

nav {
    font-size: larger;
    text-align: left;
    background-color: #333;
    color: #fff;
    padding: 10px 10px;
}

nav ul {
    list-style-type: none;
    padding: 0;
}

nav ul li {
```

```
        display: inline;
        margin-right: 20px;
    }

    nav a {
        text-decoration: none;
        color: #fff;
        font-weight: bold;
    }

    table {
        width: 80%;
        margin: 20px auto;
        background-color: #fff;
        border-radius: 5px;
        box-shadow: 0 0 5px rgba(0, 0, 0, 0.3);
    }

    th, td {
        padding: 10px;
        text-align: center;
    }

    th {
        background-color: #333;
        color: #fff;
    }

    tr:nth-child(even) {
        background-color: #f2f2f2;
    }

    /* Add more styles as needed */
</style>

</head>

<body>
    <nav>
```

```

        <ul>
            <li><a href="/">Home</a></li>
            <li><a href="/add">Add</a></li>
            <li><a href="/modify">Modify</a></li>
            <li><a href="/delete">Delete</a></li>
        </ul>
    </nav>
    <h2>Item List</h2>
    <table>
    <tr>
        <th>Name</th>
        <th>Price</th>
        <th>Dealer</th>
    </tr>
    ${tableRows.join("")}
    </table>
</body>
</html>
`
    res.write(html)
}
});
});

```

```

app.get('/add', (req, res) => {
    res.write(`
    <!DOCTYPE html>
    <html>

    <head>
        <title>Product Form</title>
        <style>
            /* Reset some default styles */
            body,
            h1 {
                margin: 0;
                padding: 0;
            }

```

```
body {
    font-family: Arial, sans-serif;
    background-color: #f4f4f4;
    text-align: center;
}

nav {
    font-size: larger;
    text-align: left;
    background-color: #333;
    color: #fff;
    padding: 10px 10px;
}

nav ul {
    list-style-type: none;
    padding: 0;
}

nav ul li {
    display: inline;
    margin-right: 20px;
}

nav a {
    text-decoration: none;
    color: #fff;
    font-weight: bold;
}

.info {
    margin-top: 10px;
}

form {
    max-width: 500px;
    margin: 20px auto;
    background-color: #fff;
```

```
padding: 20px;
border-radius: 5px;
box-shadow: 0 0 5px rgba(0, 0, 0, 0.2);
}

.form-field {
margin-bottom: 10px;
}

h1 {
background-color: #333;
color: #fff;
padding: 20px 0;
margin: 0;
}

label {
display: block;
margin-top: 10px;
margin-bottom: 5px;
}

input[type="text"],
input[type="number"] {
width: 95%;
padding: 10px;
border: 1px solid #ccc;
border-radius: 3px;
font-size: 16px;
}

button[type="submit"] {
background-color: #333;
color: #fff;
border: none;
padding: 10px 20px;
cursor: pointer;
font-size: 16px;
border-radius: 3px;
```

```
    }

    button[type="submit"]:hover {
        background-color: #555;
    }

    /* Add more styles as needed */
</style>
</head>

<body>
<nav>
<ul>
    <li><a href="/">Home</a></li>
    <li><a href="/add">Add</a></li>
    <li><a href="/modify">Modify</a></li>
    <li><a href="/delete">Delete</a></li>
</ul>
</nav>
<form id="productForm" action="/submit" method="POST">
<h1 class="info">Product Information Form</h1>
    <div class="form-field">
        <label for="name">Product Name:</label>
        <input type="text" id="name" name="name" required
minlength="5">
    </div>
    <div class="form-field">
        <label for="price">Price (in rupees):</label>
        <input type="number" id="price" name="price" required
min="1">
    </div>
    <div class="form-field">
        <label for="dealer">Dealer Name:</label>
        <input type="text" id="dealer" name="dealer" required
minlength="5">
    </div>
    <button type="submit">Submit</button>
</form>
<script src="script.js"></script>
```



```
</body>

</html>
`);
});

app.post('/submit', (req, res) => {
  const productName = (req.body.name).toLowerCase();
  const price = req.body.price;
  const dealer = (req.body.dealer).toLowerCase();

  const addQuery = 'INSERT INTO products (name, price, dealer)
VALUES (?, ?, ?)';
  con.query(addQuery, [productName, price, dealer], (err, result) => {
    if (err) {
      console.error('Error inserting data: ' + err.message);
      res.status(500).send('Error inserting data into the database');
    }
    else {
      console.log('Data inserted into the database');
      res.write(`
        <!DOCTYPE html>
        <html>
        <head>
          <title>Product insertion page</title>
        </head>
        <body>
          <script>
            alert('Data inserted successfully!');
            window.location.href = '/add'; // Redirect back to the form
          </script>
        </body>
        </html>
      `);
    }
  })
})

app.get('/delete', (req, res) => {
```

```
res.write(`
<!DOCTYPE html>
<html>

<head>
  <title>Delete Item</title>
  <style>
    /* Reset some default styles */
    body,
    h1 {
      margin: 0;
      padding: 0;
    }

    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      text-align: center;
    }

    h1 {
      background-color: #333;
      color: #fff;
      padding: 20px 0;
      margin: 0;
    }

    nav {
      font-size: larger;
      text-align: left;
      background-color: #333;
      color: #fff;
      padding: 10px 10px;
    }

    nav ul {
      list-style-type: none;
      padding: 0;
    }
  </style>
</head>
<body>
  <h1>Delete Item</h1>
  <nav>
    <ul>
      <li><a href="#"></a>
      <li><a href="#"></a>
    </ul>
  </nav>
</body>
</html>`)
```

```
nav ul li {
    display: inline;
    margin-right: 20px;
}

nav a {
    text-decoration: none;
    color: #fff;
    font-weight: bold;
}

.container {
    max-width: 500px;
    margin: 20px auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 5px;
    box-shadow: 0 0 5px rgba(0, 0, 0, 0.2);
}

label {
    display: block;
    margin-top: 10px;
    margin-bottom: 5px;
}

input[type="text"] {
    width: 100%;
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid #ccc;
    border-radius: 3px;
    font-size: 16px;
}

button[type="submit"] {
    background-color: #ff4d4d;
    color: #fff;
```

```

        border: none;
        padding: 10px 20px;
        cursor: pointer;
        font-size: 16px;
        border-radius: 3px;
    }

    button[type="submit"]:hover {
        background-color: #ff1a1a;
    }
</style>
</head>

<body>
<nav>
<ul>
    <li><a href="/">Home</a></li>
    <li><a href="/add">Add</a></li>
    <li><a href="/modify">Modify</a></li>
    <li><a href="/delete">Delete</a></li>
</ul>
</nav>
    <div class="container">
        <h1>Delete Item</h1>
        <form id="deleteForm" action="/delete" method="POST">
            <div class="form-group">
                <label for="item">Enter Item Name to Delete:</label>
                <input type="text" id="name" name="name" required
minlength="4">
                <small>Minimum 4 characters required.</small>
            </div>
            <button type="submit">Delete</button>
        </form>
    </div>
</body>

</html>
)
});

```

```
app.post('/delete', (req, res) => {
  const productName = req.body.name.toLowerCase();

  // Check if the product exists in the database
  const checkQuery = 'SELECT * FROM products WHERE name = ?';

  con.query(checkQuery, [productName], (err, result) => {
    if (err) {
      console.error('Error checking data: ' + err.message);
      res.status(500).send('Error checking data in the database');
    } else {
      if (result.length === 0) {
        // Product not found, so provide a message
        res.send('Data does not exist in the database');
      } else {
        // Product found, so delete it
        const deleteQuery = 'DELETE FROM products WHERE name
= ?';

        con.query(deleteQuery, [productName], (err, deleteResult) => {
          if (err) {
            console.error('Error deleting data: ' + err.message);
            res.status(500).send('Error deleting data from the
database');
          } else {
            console.log('Data deleted from the database');
            res.write(`
<!DOCTYPE html>
<html>
<head>
  <title>Product removal page</title>
</head>
<body>
  <script>
    alert('Data deleted successfully!');
    window.location.href = '/delete'; // Redirect back to
the form
  </script>
</body>`);
          }
        });
      }
    }
  });
});
```

```

        </html>
      ');
    }
  });
}
}
});
});

```

```

app.get('/modify', (req, res) => {
  res.write(
    <!DOCTYPE html>
    <html>
    <head>
      <title>Modify Product</title>
      <style>
        /* Reset some default styles */
        body, h1 {
          margin: 0;
          padding: 0;
        }

        body {
          font-family: Arial, sans-serif;
          background-color: #f4f4f4;
          text-align: center;
        }

        h1 {
          background-color: #333;
          color: #fff;
          padding: 20px 0;
          margin: 0;
        }

        nav {
          font-size: larger;

```

```
    text-align: left;
    background-color: #333;
    color: #fff;
    padding: 10px 10px;
}

nav ul {
    list-style-type: none;
    padding: 0;
}

nav ul li {
    display: inline;
    margin-right: 20px;
}

nav a {
    text-decoration: none;
    color: #fff;
    font-weight: bold;
}

.container {
    max-width: 500px;
    margin: 20px auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 5px;
    box-shadow: 0 0 5px rgba(0, 0, 0, 0.2);
}

label {
    display: block;
    margin-top: 10px;
    margin-bottom: 5px;
}

input[type="text"],
input[type="number"] {
```

```
width: 95%;
padding: 10px;
margin-bottom: 10px;
border: 1px solid #ccc;
border-radius: 3px;
font-size: 16px;
}

button[type="submit"] {
  background-color: #333;
  color: #fff;
  border: none;
  padding: 10px 20px;
  cursor: pointer;
  font-size: 16px;
  border-radius: 3px;
}

button[type="submit"]:hover {
  background-color: #555;
}
</style>
</head>
<body>
<nav>
<ul>
<li><a href="/">Home</a></li>
<li><a href="/add">Add</a></li>
<li><a href="/modify">Modify</a></li>
<li><a href="/delete">Delete</a></li>
</ul>
</nav>
<div class="container">
<h1>Modify Product</h1>
<form id="modifyForm" action="/modify" method="POST">
  <div class="form-group">
    <label for="name">Product Name:</label>
    <input type="text" class="form-control" id="name"
name="name" required minlength="5">
```



```

    </div>
    <div class="form-group">
      <label for="price">Price (in rupees):</label>
      <input type="number" class="form-control" id="price"
name="price" required min="1">
    </div>
    <div class="form-group">
      <label for="dealer">Dealer Name:</label>
      <input type="text" class="form-control" id="dealer"
name="dealer" required minlength="5">
    </div>
    <button type="submit" class="btn btn-primary">Modify</button>
  </form>
</div>
</body>
</html>
`);
});

```

```

app.post('/modify', (req, res) => {
  const productName = req.body.name.toLowerCase();
  const price = req.body.price;
  const dealer = req.body.dealer.toLowerCase();

  // Check if the product already exists in the database
  const checkQuery = 'SELECT * FROM products WHERE name = ?';

  con.query(checkQuery, [productName], (err, result) => {
    if (err) {
      console.error('Error checking data: ' + err.message);
      res.status(500).send('Error checking data in the database');
    } else {
      if (result.length === 0) {
        // Product not found, so insert it
        const addQuery = 'INSERT INTO products (name, price,
dealer) VALUES (?, ?, ?)';
        con.query(addQuery, [productName, price, dealer], (err,
insertResult) => {
          if (err) {

```

```

        console.error('Error inserting data: ' + err.message);
        res.status(500).send('Error inserting data into the
database');
    } else {
        console.log('Data inserted into the database');
        res.write(
        <!DOCTYPE html>
        <html>
        <head>
            <title>Modification page</title>
        </head>
        <body>
            <script>
                alert('Data inserted successfully!');
                window.location.href = '/modify'; // Redirect back to
the form
            </script>
        </body>
        </html>
        ');
    }
});
} else {
    // Product found, so update it
    const updateQuery = 'UPDATE products SET price = ?, dealer
= ? WHERE name = ?';
    con.query(updateQuery, [price, dealer, productName], (err,
updateResult) => {
        if (err) {
            console.error('Error updating data: ' + err.message);
            res.status(500).send('Error updating data in the database');
        } else {
            console.log('Data updated in the database');
            res.send('Data updated successfully');
            res.write(
            <!DOCTYPE html>
            <html>
            <head>
                <title>Modification page</title>

```

```

    </head>
    <body>
      <script>
        alert('Data modified successfully!');
        window.location.href = '/modify'; // Redirect back to
the form
      </script>
    </body>
  </html>
  `);
  }
});
  }
});
})

```

```

app.listen(port, () => {
  console.log(`Server is running on http://localhost:${port}`);
});

```

Output:

Home	Add	Modify	Delete
Item List			
Name	Price	Dealer	
benches	1599	ohio woods	

Inserting data –

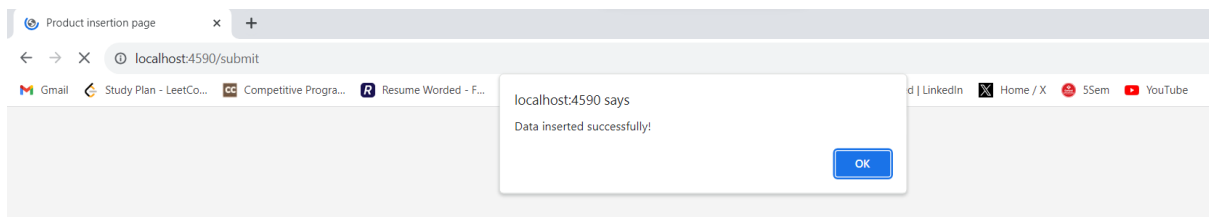
[Home](#) [Add](#) [Modify](#) [Delete](#)

Product Information Form

Product Name:

Price (in rupees):

Dealer Name:



[Home](#) [Add](#) [Modify](#) [Delete](#)

Item List

Name	Price	Dealer
benches	1599	ohio woods
poster	55	paper plane

Modifying Data –

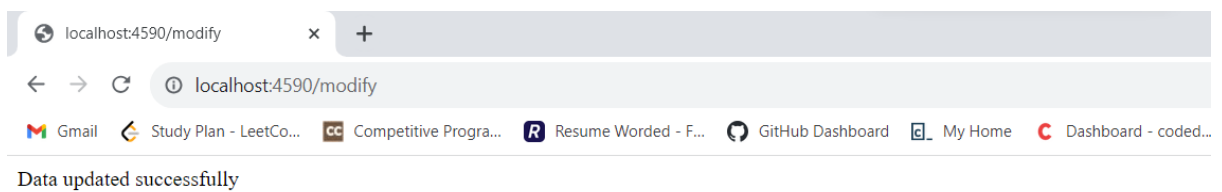
[Home](#) [Add](#) [Modify](#) [Delete](#)

Modify Product

Product Name:

Price (in rupees):

Dealer Name:



[Home](#) [Add](#) [Modify](#) [Delete](#)

Item List

Name	Price	Dealer
benches	1599	ohio woods
poster	129	badboy

Deleting Data –

[Home](#) [Add](#) [Modify](#) [Delete](#)

Name	Price	Dealer
benches	1599	ohio woods
poster	129	badboy

[Home](#) [Add](#) [Modify](#) [Delete](#)

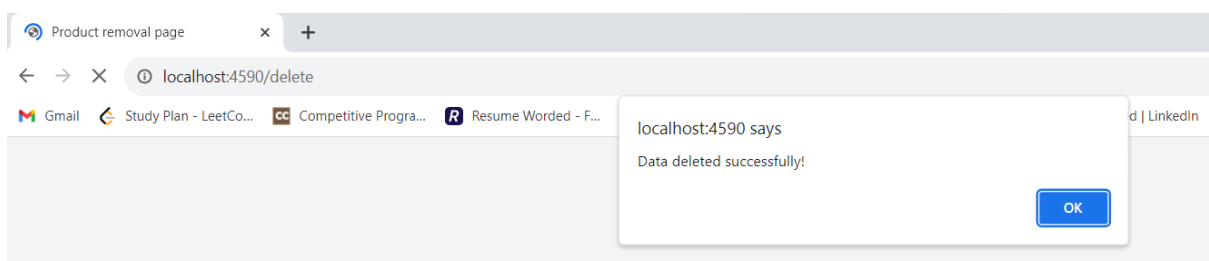
Delete Item

Enter Item Name to Delete:

Poster

Minimum 4 characters required.

Delete



Home Add Modify Delete		
Item List		
Name	Price	Dealer
benches	1599	ohio woods