Practical 6: Write a nodejs /Mysql code to implement CRUD operation.

App.js

```javascript
const path = require('path');
const express = require('express');
const ejs = require('ejs');
const bodyParser = require('body-parser');
const mysql = require('mysql2');
const app = express();


const connection=mysql.createConnection({
    host:'localhost',
    user:'root',
    password:'',
    database:'db_university'
});

connection.connect(function(error){
    if(!!error) console.log(error);
    else console.log('Database Connected!');
});

//set views file
app.set('views',path.join(__dirname,'views'));

//set view engine
app.set('view engine', 'ejs');
app.use(express.json());
app.use(express.urlencoded({ extended: false }));



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

    let sql = "SELECT * FROM tblstudentinfo";
    let query = connection.query(sql, (err, rows) => {
        if(err) throw err;
        res.render('user_index', {
            title : 'CRUD Operation using NodeJS / MySQL',
            users : rows
        });
    });
});

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

    let sql = "SELECT * FROM tblfacltyinfo";
```

```
let query = connection.query(sql, (err, rows) => {
```

```
        if(err) throw err;
        res.render('faclty_index', {
            title : 'CRUD Operation using NodeJS / MySQL',
            facalty : rows
        });
    });
});


app.get('/add',(req, res) => {
    res.render('user_add', {
        title : 'Add Student Information'
    });
});

app.post('/save',(req, res) => {
    let data = {stu_name: req.body.stu_name,stu_dob:req.body.stu_dob,stu_age:r
eq.body.stu_age,stu_father:req.body.stu_father,stu_phone:req.body.stu_phone,st
u_address:req.body.stu_address};
    let sql = "INSERT INTO tblstudentinfo SET ?";
    let query = connection.query(sql, data,(err, results) => {
      if(err) throw err;
      res.redirect('/');
    });
});

app.get('/facalty',(req, res) => {
    res.render('faclty_add', {
        title : 'Add Faclty information'
    });
});
app.post('/Submit',(req, res) => {
    let data = {name: req.body.name,dob:req.body.dob,email:req.body.email,phon
e:req.body.phone,address:req.body.address,department:req.body.department};
    let sql = "INSERT INTO tblfacltyinfo SET ?";
    let query = connection.query(sql, data,(err, results) => {
      if(err) throw err;
      res.redirect('/faclty');
    });
});


app.get('/edit/:userId',(req, res) => {
    const userId = req.params.userId;
    let sql = `Select * from tblstudentinfo where stu_id = ${userId}`;
    let query = connection.query(sql,(err, result) => {
        if(err) throw err;
        res.render('user_edit', {
            title : 'CRUD Operation using NodeJS / ExpressJS / MySQL',
```

```
user : result[0]
```

```
        });
    });
});


app.post('/update',(req, res) => {
    const userId = req.body.stu_id;
    let sql = "update tblstudentinfo SET stu_name='"+req.body.stu_name+"',stu_
dob='"+req.body.stu_dob+"',stu_age='"+req.body.stu_age+"',stu_father='"+req.bo
dy.stu_father+"',stu_phone='"+req.body.stu_phone+"',stu_address='"+req.body.st
u_address+"' where stu_id ="+userId;
    let query = connection.query(sql,(err, results) => {
      if(err) throw err;
      res.redirect('/');
    });
});
app.get('/update/:userId',(req, res) => {
    const userId = req.params.userId;
    let sql = `Select * from tblfacltyinfo where id = ${userId}`;
    let query = connection.query(sql,(err, result) => {
        if(err) throw err;
        res.render('faclty_edit', {
            title : 'CRUD Operation using NodeJS / ExpressJS / MySQL',
            faclty : result[0]
        });
    });
});

app.post('/edit',(req, res) => {
    const userId = req.body.id;
    let sql = "update tblfacltyinfo SET name='"+req.body.name+"',dob='"+req.bo
dy.dob+"',email='"+req.body.email+"',phone='"+req.body.phone+"',address='"+req
.body.address+"',department='"+req.body.department+"' where id ="+userId;
    let query = connection.query(sql,(err, results) => {
      if(err) throw err;
      res.redirect('/faclty');
    });
});

app.get('/delete/:userId',(req, res) => {
    const userId = req.params.userId;
    let sql = `DELETE from tblstudentinfo where stu_id = ${userId}`;
    let query = connection.query(sql,(err, result) => {
        if(err) throw err;
        res.redirect('/');
    });
});
```

```
app.get('/deleted/:userId',(req, res) => {
    const userId = req.params.userId;
```

```
    let sql = `DELETE from tblfacltyinfo where id = ${userId}`;
    let query = connection.query(sql,(err, result) => {
        if(err) throw err;
        res.redirect('/faclty');
    });
});
// Server Listening
app.listen(3000, () => {
    console.log('Server is running at port 3000');
});
```

views/faclty_add.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title><%= title %></title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1
/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/pop
per.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
  <h2><%= title %></h2>
  <form action="/Submit" method="post">
    <div class="form-group">
      <label for="name">Name:</label>
      <input type="text" class="form-control" id="name" name="name" required>
    </div>
    <div class="form-group">
      <label for="dob">Date of Birth:</label>
      <input type="date" class="form-control" id="dob"  name="dob" required>
    </div>

    <div class="form-group">
        <label for="email">Email:</label>
        <input type="text" class="form-
control" id="email"  name="email" required>
      </div>
```

```html
        <div class="form-group">
            <label for="phone">PhoneNo:</label>
            <input type="text" class="form-
control" id="phone"   name="phone" minlength="10" maxlength="10" required>
        </div>
        <div class="form-group">
            <label for="address">Address:</label>
            <input type="text" class="form-
control" id="address"   name="address" required>
        </div>
        <div class="form-group">
            <label for="department">Department:</label>
            <input type="text" class="form-
control" id="department"   name="department" required>



        </div>
      <button type="submit" class="btn btn-primary">Submit</button>
    </form>
</div>

</body>
</html>
```

views/faclty_index.ejs

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <title><%= title %></title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1
/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/pop
per.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
    <h2><%= title %></h2>
    <a href="/add" class="btn btn-sm btn-primary">Add Student</a>
    <a href="/faclty" class="btn btn-sm btn-
primary">Add Faclty</a></br><br/><h2>View faclty Information</h2>
```

```html
<table class="table table-striped">
  <thead class="thead-dark">
    <tr>
      <th>Name</th>
      <th>Date Of Birth</th>

      <th>Email</th>
      <th>Phone Number</th>
      <th>Address</th>
      <th>Departmnet</th>
      <th>Action</th>
    </tr>
  </thead>
  <tbody>
      <%facalty.forEach(function(facalty){ %>
          <tr>
              <td><%=facalty.name %></td>
              <td><%=facalty.dob%></td>

              <td><%=facalty.email%></td>
              <td><%=facalty.phone%></td>
              <td><%=facalty.address%></td>
              <td><%=facalty.department%></td>
              <td>
                  <a href="update/<%= facalty.id %>" class="btn btn-sm btn-primary">Edit</a>
                  <a href="deleted/<%= facalty.id %>" class="btn btn-sm btn-danger">Delete</a>
              </td>
          </tr>
      <%});%>
  </tbody>
</table>
</div>

</body>
</html>
```

views/faclty_edit.ejs

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title><%= title %></title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
```

```html
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1
/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/pop
per.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
  <!-- <h2><%= title %></h2> -->
  <form action="/edit" method="post">
    <input type="hidden" value="<%=facalty.id %>" name="id">
    <div class="form-group">
      <label for="name">Name:</label>
      <input type="text" class="form-
control" id="email" value="<%=facalty.name%>" name="name" required>
    </div>
    <div class="form-group">
      <label for="dob">Date of Birth:</label>
      <input type="date" class="form-
control" id="dob" value="<%=facalty.dob%>"  name="dob" required>
    </div>
    <div class="form-group">
      <label for="email">Email:</label>
      <input type="text" class="form-
control" id="email" value="<%=facalty.email%>"  name="email" required>
    </div>

      <div class="form-group">
        <label for="phone">PhoneNo:</label>
        <input type="text" class="form-
control" id="phone" value="<%=facalty.phone%>"  name="phone" minlength="10" ma
xlength="10" required>
      </div>
      <div class="form-group">
        <label for="address">Address:</label>
        <input type="text" class="form-
control" id="address" value="<%=facalty.address%>" name="address" required>
      </div>
      <div class="form-group">
        <label for="department">Department:</label>
        <input type="text" class="form-
control" id="department"  value="<%=facalty.department%>" name="department" re
quired>
```

```
          </div>
      <button type="submit" class="btn btn-primary">Submit</button>
    </form>
</div>

</body>

</html>
```

views/user_add.ejs

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title><%= title %></title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2><%= title %></h2>
  <form action="/save" method="post">
    <div class="form-group">
      <label for="name">Name:</label>
      <input type="text" class="form-control" id="name" name="stu_name" required>
    </div>
    <div class="form-group">
      <label for="dob">Date of Birth:</label>
      <input type="date" class="form-control" id="dob"  name="stu_dob" required>
    </div>
    <div class="form-group">
      <label for="age">Age:</label>
      <input type="number" class="form-control" id="age"  name="stu_age" required>
    </div>
```

```
    <div class="form-group">
        <label for="father">Student FatherName:</label>
        <input type="text" class="form-
control" id="father"  name="stu_father" required>
    </div>
    <div class="form-group">
        <label for="phone">Student PhoneNo:</label>
        <input type="text" class="form-
control" id="phone"  name="stu_phone" minlength="10" maxlength="10" required>
    </div>
    <div class="form-group">
        <label for="address">Student Address:</label>
        <input type="text" class="form-
control" id="address"  name="stu_address" required>
    </div>
  <button type="submit" class="btn btn-primary">Submit</button>
  </form>
</div>


</body>
</html>
```

views/user_index.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title><%= title %></title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1
/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/pop
per.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
  <h2><%= title %></h2>
  <a href="/add" class="btn btn-sm btn-primary">Add Student</a>
  <a href="/faculty" class="btn btn-sm btn-primary">Add Faculty</a></br><br/>
  <h2>View Student Information</h2>
  <table class="table table-striped">
```

```
    <thead class="thead-dark">
      <tr>
        <th>Student Name</th>
        <th>Date Of Birth</th>
        <th>Age</th>
        <th>Student FatherName</th>
        <th>Phone Number</th>
        <th>Address</th>
        <th>Action</th>
      </tr>
    </thead>
    <tbody>
        <%users.forEach(function(user){ %>
            <tr>
                <td><%=user.stu_name %></td>
                <td><%=user.stu_dob%></td>
                <td><%=user.stu_age%></td>
                <td><%=user.stu_father%></td>
                <td><%=user.stu_phone%></td>
                <td><%=user.stu_address%></td>
                <td>
                    <a href="edit/<%= user.stu_id %>" class="btn btn-sm btn-
primary">Edit</a>
                    <a href="delete/<%= user.stu_id %>" class="btn btn-sm btn-
danger">Delete</a>
                </td>
            </tr>
        <%});%>
    </tbody>
  </table>

</div>

</body>
</html>
```
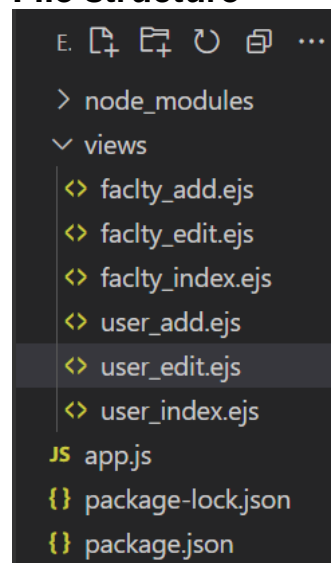
views/user_edit.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title><%= title %></title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1
/css/bootstrap.min.css">
```

```html
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/pop
per.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
  <h2><%= title %></h2>
  <form action="/update" method="post">
    <input type="hidden" value="<%= user.stu_id %>" name="stu_id">
    <div class="form-group">
      <label for="name">Name:</label>
      <input type="text" class="form-
control" id="email" value="<%=user.stu_name%>" name="stu_name" required>
    </div>
    <div class="form-group">
      <label for="dob">Date of Birth:</label>
      <input type="date" class="form-
control" id="dob" value="<%=user.stu_dob%>"   name="stu_dob" required>
    </div>
    <div class="form-group">
      <label for="age">Age:</label>
      <input type="number" class="form-
control" id="age" value="<%=user.stu_age%>"   name="stu_age" required>
    </div>
    <div class="form-group">
        <label for="father">Student FatherName:</label>
        <input type="text" class="form-
control" id="father" value="<%=user.stu_father%>"   name="stu_father" required>
      </div>
      <div class="form-group">
        <label for="phone">Student PhoneNo:</label>
        <input type="text" class="form-
control" id="phone" value="<%=user.stu_phone%>"   name="stu_phone" minlength="1
0" maxlength="10" required>
      </div>
      <div class="form-group">
        <label for="address">Student Address:</label>
        <input type="text" class="form-
control" id="address" value="<%=user.stu_address%>" name="stu_address" require
d>
      </div>
    <button type="submit" class="btn btn-primary">Submit</button>
  </form>
</div>
```
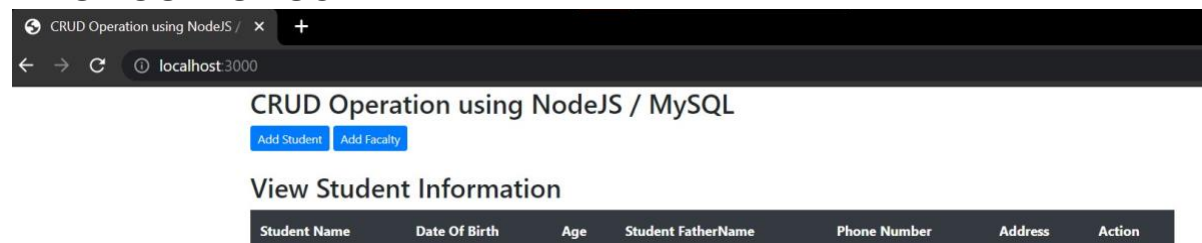
```
</body>

</html>
```

Output:-
File structure

FIRST OUTPUT SCREEN

ADD STUDENT AND FACLTY INFORMATION

EDIT STUDENT AND FACLTY INFORMATION

DELETE STUDENT FACLTY INFORMATION

CRUD Operation using NodeJS / MySQL

Add Student   Add Facalty

View faclty Information

Name	Date Of Birth	Email	Phone Number	Address	Departmnet	Action

CRUD Operation using NodeJS / MySQL

Add Student   Add Facalty

View Student Information

Student Name	Date Of Birth	Age	Student FatherName	Phone Number	Address	Action

database

db_university
- New
- tblfacltyinfo
- tblstudentinfo