

WEB TECHNOLOGIES LAB

WEEK - 1&2

Aim : Design static web pages for home page that includes hyperlinks for registration page, login page and forgot password pages. Use form elements to create required web pages for the applications considered.

Program :

week_1,2.html :

```
<!DOCTYPE html>
<html>
  <head>
    <title>WEEK 1 AND 2</title>
  </head>
  <frameset rows="30%,70%">
    <frame src="top.html" scrolling=no >
    <frameset cols="20%,80%">
      <frame src="left.html" >
      <frame name="right" src="right.html" >
    </frameset>
  </frameset>
</html>
```

top.html :

```
<!DOCTYPE html>
<html>
  <head>
    <link href="top_styles.css" rel="stylesheet">
    <title></title>

  </head>
  <body>
    <div class="grid-container" style="display:flex;">
      <div>
        
      </div>
      <div class="heading">
        <h1>GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING (A)</h1>
      </div>
    </div>

  </body>
</html>
```

left.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link href="left_styles.css" rel="stylesheet">
  <title>Document</title>
</head>
<body>
  <table width="100%">
    <tr>
      <td> <a href="login.html" target="right">Login </a></td>
    </tr>
    <tr>
      <td> <a href="registration.html" target="right">Registration</a></td>
    </tr>
    <tr>
      <td> <a href="contact.html" target="right">Contact </a></td>
    </tr>
  </table>
</body>
</html>
```

right.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link href="right_styles.css" rel="stylesheet">
  <title>Document</title>
</head>
<body>
  <div class="grid-container">
    <div class="about-image">
      
    </div>
    <div class="about">
      <h2>About GVPCE</h2>
    </div>
  </div>
  <p>
```

The Gayatri Vidya Parishad College of Engineering or GVPCE is a private college established in the year 1996. The educational trust, Gayatri Vidya Parishad is formed, managed and promoted by academicians and technocrats in Visakhapatnam, India. The Gayatri Vidya Parishad College of Engineering [GVPCE] had its humble beginning in December 1996 with 4 branches and 200 intake established under the parent society 'Gayatri Vidya Parishad' (GVP), a non-profitable organization comprising of noted educationists and eminent philanthropists who have a missionary zeal to provide quality technical education. From that point on, the college has very quickly established itself as one of the most-preferred self-financing engineering colleges in Andhra Pradesh offering 10 B.Tech. Programs, 9 M.Tech. and one MCA Program approved by AICTE with an intake of 1362.

</p>
</div>

</div>

</body>
</html>

login.html :

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Merriweather&display=swap"
rel="stylesheet">
    <link href="login_registration_styles.css" rel="stylesheet">
  </head>
  <body>
    <h2>Login Page</h2>
    <form>
      <div class="grid-container">
        <label class="label" for="fname">Username :</label>
        <input class="label" type="text" id="fname" name="fname" value="John">
      </div>
      <div class="grid-container">
        <label class="label" for="lname">Password :</label>
        <input class="label" type="password" id="lname" name="lname"
value="*****">
      </div>
    </form>
    <div class="buttons">
      <button class="button" type="button" >SUBMIT</button><br>
```

```

        <a href=forgot_password.html ><button class="button1" type="button" >Forgot
Password</button></a>
    </div>
</body>
</html>

```

registration.html :

```

<!DOCTYPE html>
<html>
    <head>
        <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
        <link href="https://fonts.googleapis.com/css2?family=Merriweather&display=swap"
rel="stylesheet">
        <link href="login_registration_styles.css" rel="stylesheet">

    </head>
    <body>
        <h2>Registration Page</h2>
        <form>
            <div class="grid-container">
                <label class="label" for="fname">Username :</label>
                <input class="label" type="text" id="fname" name="fname" value="John">
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Password :</label>
                <input class="label" type="password" id="lname" name="lname"
value="*****">
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Confirm Password :</label>
                <input class="label" type="password" id="lname" name="lname"
value="*****">
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Email-id :</label>
                <input class="label" type="email" id="lname" name="lname" >
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Mobile number :</label>
                <input class="label" type="number" id="lname" name="lname"
value="*****">
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Date of birth :</label>
                <input class="label" type="date" id="lname" name="lname"
value="*****">
            </div>
            <div class="grid-container">

```

```

        <label class="label" for="lname">Address :</label>
        <input class="label" type="text" id="lname" name="lname" >
    </div>
    <div class="grid-container">
        <label class="label">Gender</label>
        <div class="label">
            <input name="gender" type="radio"><label>Male</label>
            <input name="gender" type="radio"><label>Female</label>
        </div>
    </div>
</form>
<div class="buttons">
    <button class="button" type="button" >SUBMIT</button><br>
</div>
</body>
</html>

```

forgot_password.html :

```

<!DOCTYPE html>
<html>
    <head>
        <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
        <link href="https://fonts.googleapis.com/css2?family=Merriweather&display=swap"
rel="stylesheet">
        <link href="login_registration_styles.css" rel="stylesheet">
    </head>
    <body>
        <h2>Reset your password here</h2>
        <form>
            <div class="grid-container">
                <label class="label" for="fname">New Password :</label>
                <input class="label" type="password" id="fname" name="fname"
value="*****">
            </div>
            <div class="grid-container">
                <label class="label" for="lname">Confirm Password :</label>
                <input class="label" type="password" id="lname" name="lname"
value="*****">
            </div>
        </form>
        <div class="buttons">
            <button class="button" type="button" >Reset Password</button><br>
        </div>
    </body>
</html>

```

contact.html :

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link href="contact_styles.css" rel="stylesheet">
    <title>Document</title>
</head>
<body>
    <div>
        <div>
            <h2>Contact info</h2>
            <div>
                <p>Phone: <a href="tel:+91 9390662827">+91 9390662827</a></p>
                <p>Email : <a
href="mailto:19131a05m3@gvpce.ac.in">19131a05m3@gvpce.ac.in</a></p>
            </div>
        </div>
        <div>
            <h2>
                Address
            </h2>
            <div>
                <p>GVPCE<br>Gandhi Nagar,<br> Madhurawada,<br> Visakhapatnam,<br>
Andhra Pradesh.<br>Pincode - 530048</p>
            </div>
        </div>
    </div>
</body>
</html>

```

Output :

Main page :



GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)
[Registration](#)
[Contact](#)



About GVPCE

The Gayatri Vidya Parishad College of Engineering or GVPCE is a private college established in the year 1996. The educational trust, Gayatri Vidya Parishad is formed, managed and promoted by academicians and technocrats in Visakhapatnam, India. The Gayatri Vidya Parishad College of Engineering [GVPCE] had its humble beginning in December 1996 with 4 branches and 200 intake established under the parent society 'Gayatri Vidya Parishad' (GVP), a non-profitable organization comprising of noted educationists and eminent philanthropists who have a missionary zeal to provide quality technical education. From that point on, the college has very quickly established itself as one of the most-preferred self-financing engineering colleges in Andhra Pradesh offering 10 B.Tech. Programs, 9 M.Tech. and one MCA Program approved by AICTE with an intake of 1362.

Login page :



GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)
[Registration](#)
[Contact](#)

Login Page

Username :	<input type="text" value="John"/>
Password :	<input type="password" value="*****"/>
<input type="button" value="SUBMIT"/>	
<input type="button" value="Forgot Password"/>	

Registration page :



COLLEGE OF ENGINEERING
(AUTONOMOUS)

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)

[Registration](#)

[Contact](#)

Registration Page

Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth :

Address :

Gender
☐ Male ☐ Female

Forgot Password Page :



COLLEGE OF ENGINEERING
(AUTONOMOUS)

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)

[Registration](#)

[Contact](#)

Reset your password here

New Password :

Confirm Password :

Contact page :



GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)
[Registration](#)
[Contact](#)

Contact info

Phone: [+91 9390662827](tel:+919390662827)

Email : 19131a05m3@gvpce.ac.in

Address

GVPCE
Gandhi Nagar,
Madhurawada,
Visakhapatnam,
Andhra Pradesh.
Pincode - 530048

WEEK - 3

Aim : Apply styles using CSS to the web pages designed in Week 1 & 2.

Program :

top_styles.css :

```
.grid-container{
    display: grid;
    grid-template-columns: 30% 70%;
}
body{
    height: 100vh;
}
.heading{
    text-align:center;
    margin:auto;
}
```

left_styles.css :

```
body{
    background-color: rgb(255, 255, 255);
}
td{
    background-color: rgb(11, 30, 56);
    padding: 2%;
    border-bottom: 0.1rem solid white;
```

```
        font-size: 18px;
    }
    a{

        color:rgb(255, 255, 255);
        text-decoration: none !important;
    }
```

right_styles.css :

```
.grid-container{
    display: grid;
    grid-template-columns: 40% 60%;
    padding: 5%;
}
.about{
    padding: 2%;
}
about h2{
    text-decoration: underline;
    text-align: center;
}
.about-image{
    display: flex;
    text-align: center;
}

.about-image img{
    margin: auto;
}
```

login_resgitation_styles.css :

```
.grid-container{
    width:100%;
    display: grid;
    grid-template-columns: 50% 50%;
    padding: 5%;
}
.label{
    font-size: 15px;
    font-family: 'Merriweather', serif;
}
.buttons{

    padding: 2%;
    display: grid;
    justify-content: center;
    align-items: center;
```

```

}
.button{
    cursor: pointer;
    font-size: 20px;
    background-color: rgb(255, 255, 255);
    border-radius: 5%;
    border: solid rgb(11, 30, 56);
    color:rgb(11, 30, 56);
}
.button:hover{
    background-color: rgb(11, 30, 56);
    color:white;
}
.button1{
    cursor: pointer;
    text-decoration: underline;
    font-size: 15px;
    background-color: white;
    border: none;
    font-family: 'Merriweather', serif;
}
.button1:hover{
    font-weight: bold;
}

h2{
    text-align:center;
}

form{
    display: grid;
    justify-content: center;
    align-items: center;
}

```

contact_styles.css :

```

p{
    font-size: 18px;
}
a{
    color:black !important;
}
body{
    text-align: center;
}

```

Output :

Main page :



GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)[Registration](#)[Contact](#)

About GVPCE

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Login page :



GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A)

[Login](#)[Registration](#)[Contact](#)

Login Page

Username :

Password :

[Forgot Password](#)

Registration page :

Login
Registration
Contact

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☐ Female

Forgot password page :

Login
Registration
Contact

Reset your password here

New Password :

Confirm Password :

Contact page :

Login
Registration
Contact

Contact info

Phone: +91 9390662827

Email : 19131a05m3@gvpce.ac.in

Address

GVPCE
Gandhi Nagar,
Madhurawada,
Visakhapatnam,
Andhra Pradesh.
Pincode - 530048

WEEK - 4

Aim : Perform the client-side data validations using javascript for Scenario 3 and 4 in Week 1 & 2

Program :

login.html :

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Merriweather&display=swap"
rel="stylesheet">
    <link href="login_registration_styles.css" rel="stylesheet">
  </head>
  <body>
    <h2>Login Page</h2>
    <form name="login_form">
      <div class="grid-container">
        <label class="label" for="fname">Username :</label>
        <input class="label" type="text" id="fname" name="username"
value="John">
      </div>
      <div class="grid-container">
        <label class="label" for="password">Password :</label>
        <input class="label" type="password" id="lname" name="password"
value="*****">
      </div>
    </form>
    <div class="buttons">
      <button class="button" type="submit"
onclick="check_login()">SUBMIT</button><br>
      <a href="forgot_password.html"><button class="button1" type="button">Forgot
Password</button></a>
    </div>
  </body>
  <script>
    function check_login(){
      let username=document.forms["login_form"]["username"].value;
      let password=document.forms["login_form"]["password"].value;

      if(username.length<6){
        alert('Username must be of atleast 6 characters.');
```

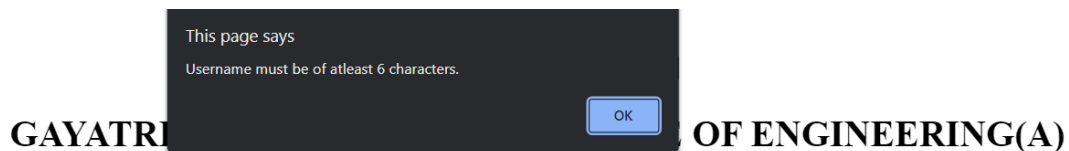
```

        console.log("Password must be of atleast 8 characters");
    }

    else if(!password.match('(?=.*[A-Z])')){
        alert("Password should conatin atleast one uppercase letter");
        console.log("Password should conatin atleast one uppercase letter");
    }
    else if(!password.match('(?=.*[a-z])')){
        alert("Password should conatin atleast one lowercase letter");
        console.log("Password should conatin atleast one lowercase letter");
    }
    else if(!password.match('(?=.*[0-9])')){
        alert("Password should conatin atleast one numeric");
        console.log("Password should conatin atleast one numeric");
    }
    else if(!password.match('(?=.*[!@#$$%^&*])')){
        alert("Password should conatin atleast one special symbol");
        console.log("Password should conatin atleast one special symbol");
    }
    else{
        alert("login successful")
        console.log("success")
    }
}
</script>
</html>

```

Output :



Login Page

Username :

Password :

[Forgot Password](#)

GAYATRI

This page says
Password must be of atleast 8 characters

OK

OF ENGINEERING(A)

Login Page

Username :

Password :

SUBMIT

[Forgot Password](#)

GAYATRI

This page says
Password should conatin atleast one uppercasse letter

OK

OF ENGINEERING(A)

Login Page

Username :

Password :

SUBMIT

[Forgot Password](#)

This page says
login successful

OK

GAYATRI

OF ENGINEERING(A)

Login Page

Username :

Password :

SUBMIT

[Forgot Password](#)

registration.html :

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Merriweather&display=swap"
rel="stylesheet">
    <link href="login_registration_styles.css" rel="stylesheet">
  </head>
  <body>
    <h2>Registration Page</h2>
    <form name="register_form">
      <div class="grid-container">
        <label class="label" for="fname">Username :</label>
        <input class="label" type="text" id="fname" name="username"
value="John">
      </div>
      <div class="grid-container">
        <label class="label" for="lname">Password :</label>
        <input class="label" type="password" id="lname" name="password"
value="*****">
      </div>
      <div class="grid-container">
        <label class="label" for="lname">Confirm Password :</label>
        <input class="label" type="password" id="lname" name="confirm_password"
value="*****">
      </div>
    </form>
  </body>
</html>
```

```

</div>
<div class="grid-container">
  <label class="label" for="lname">Email-id :</label>
  <input class="label" type="email" id="lname" name="email_id" >
</div>
<div class="grid-container">
  <label class="label" for="lname">Mobile number :</label>
  <input class="label" type="number" id="lname" name="mobile_no"
value="*****">
</div>
<div class="grid-container">
  <label class="label" for="lname">Date of birth :</label>
  <input class="label" type="date" id="lname" name="dob" value="*****">
</div>
<div class="grid-container">
  <label class="label" for="lname">Address :</label>
  <input class="label" type="text" id="lname" name="address" >
</div>
<div class="grid-container">
  <label class="label">Gender</label>
  <div class="label">
<input name="gender" type="radio"><label>Male</label>
<input name="gender" type="radio"><label>Female</label>
</div>
</div>
</form>
<div class="buttons">
  <button class="button" type="submit"
onclick="check_register()">SUBMIT</button><br>
</div>
</body>

```

```

<script>
function check_register(){
  let username=document.forms["register_form"]["username"].value;
  let password=document.forms["register_form"]["password"].value;
  let
confirm_password=document.forms["register_form"]["confirm_password"].value;
  let email_id=document.forms["register_form"]["email_id"].value;
  let mobile_no=document.forms["register_form"]["mobile_no"].value;

  var email =
/^[a-zA-Z0-9.!#$%&'*/+=?^_`{|}~-]+@[a-zA-Z0-9-]+(?:\.[a-zA-Z0-9-]+)*$/;
  var numbers = /^[0-9]+$/;

  if(username.length<6){
    alert('Username must be of atleast 6 characters.');
```

```

else if(password.length<8){
    alert("Password must be of atleast 8 characters");
    console.log("Password must be of atleast 8 characters");
}
else if(password!=confirm_password){
    alert("Confirm password must be the same of passsword");
    console.log("Confirm password must be the same of passsword");
}

else if(!password.match('(?=.*[A-Z])')){
    alert("Password should conatin atleast one uppercase letter");
    console.log("Password should conatin atleast one uppercase letter");
}
else if(!password.match('(?=.*[a-z])')){
    alert("Password should conatin atleast one lowercase letter");
    console.log("Password should conatin atleast one lowercase letter");
}
else if(!password.match('(?=.*[0-9])')){
    alert("Password should conatin atleast one numeric");
    console.log("Password should conatin atleast one numeric");
}
else if(!password.match('(?=.*[!@#$$%^&]*)')){
    alert("Password should conatin atleast one special symbol");
    console.log("Password should conatin atleast one special symbol");
}
else if(!email_id.match(email)){
    alert("Enter valid Email id");
    console.log("Enter valid Email id");
}
else if(mobile_no.length!=10){
    alert("Mobile number must contain 10 digits");
    console.log("Mobile number must contain 10 digits");
}
else if(!mobile_no.match(numbers)){
    alert("Mobile number must contain only digits");
    console.log("Mobile number must contain only digits");
}
else if(!mobile_no.charAt(0).match('(?=.*[6-9])')){
    alert("Mobile number must start with any number from 6-9");
    console.log("Mobile number must start with any number from 6-9");
}
else{
    alert("Registration successful")
    console.log("success")
}

}
</script>
</html>

```

Output :

This page says
Username must be of atleast 6 characters.

OK

GAYATRI OF ENGINEERING(A)

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says
Password must be of atleast 8 characters

OK

GAYATRI OF ENGINEERING(A)

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says

Confirm password must be the same of password

OK

GAYATRI

OF ENGINEERING(A)

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says

Password should contain atleast one uppercase letter

OK

GAYATRI

OF ENGINEERING(A)

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says
Enter valid Email id

OK

GAYATRI

OF ENGINEERING(A

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says
Mobile number must start with any number from 6-9

OK

GAYATRI

OF ENGINEERING(A

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says
Mobile number must contain 10 digits

OK

AYATRI

OF ENGINEERING(A)

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

This page says
Registration successful

OK

GAYATRI

OF ENGINEERING(C

Registration Page


Username :

Password :

Confirm Password :

Email-id :

Mobile number :

Date of birth : 

Address :

Gender ☐ Male ☒ Female

SUBMIT

WEEK - 5

Aim : Create XML documents for chosen application and validate using DTD and schema. Also render the content of XML document using XSL.

Scenario 1: XML document must have attributes and elements so that they can be validated against DTD/Schema.

Scenario 2: Check the data types of variables declared in XML document using Schema.

Scenario 3: Display the details of data contained in XML document in a table using XSL.

Program :

XML file :

```
<?xml version="1.0" ?>
<!--<?xml-stylesheet type="text/xsl" href="week5_1.xsl"?> -->
<?xml-stylesheet type="text/css" href="week5.css"?>

<!DOCTYPE class SYSTEM "week5.dtd">

<class>
<teaching clg="A">
<name>T1</name><id>101</id><dept>CSE</dept>
</teaching>
<teaching clg="B">
<name>T2</name><id>102</id><dept>CSE</dept>
</teaching>
<teaching clg="C">
<name>T3</name><id>104</id><dept>ECE</dept>
</teaching>
<non_teaching clg="A">
<name>NT1</name><id>111</id>
</non_teaching>
<non_teaching clg="B">
<name>NT2</name><id>112</id>
</non_teaching>
<non_teaching clg="C">
<name>NT3</name><id>113</id>
</non_teaching>
<student clg="A">
<name>S1</name><rollno>1</rollno><dept>ECE</dept>
</student>
<student clg="B">
<name>S2</name><rollno>2</rollno><dept>CSE</dept>
</student>
<student clg="C">
<name>S3</name><rollno>3</rollno><dept>ECE</dept>
</student>
</class>
```

CSS file : week5.css

```
class
{
background-color: pink;
}
teaching,non_teaching,student
{
font-size:25px;
display:block;
color: blue;
margin-left: 50px;
}
```

Output :



T1101CSE
T2102CSE
T3104ECE
NT1111
NT2112
NT3113
S11ECE
S22CSE
S33ECE

XML document validating against DTD :

DTD file : week5.dtd

```
<!ELEMENT class (teaching+,non_teaching+,student+)>
<!ELEMENT teaching (name,id,dept)>
<!ATTLIST teaching clg CDATA #REQUIRED>
<!ELEMENT non_teaching (name,id)>
<!ATTLIST non_teaching clg CDATA #REQUIRED>
<!ELEMENT student (name,rollno,dept)>
<!ATTLIST student clg CDATA #REQUIRED>
<!ELEMENT name (#PCDATA)>
<!ELEMENT id (#PCDATA)>
<!ELEMENT rollno (#PCDATA)>
<!ELEMENT dept (#PCDATA)>
```

Output :

No errors were found

The following files have been uploaded so far:

[XML document:](#)

[week5.dtd](#)

Click on any file name if you want to edit the file.

XML document validating against Schema:

XSD file : week5.xsd

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns="http://www.javatpoint.com"
elementFormDefault="qualified">
<xs:element name="class">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="teaching" maxOccurs="unbounded">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="name" type="xs:string"/>
            <xs:element name="id" type="xs:integer"/>
            <xs:element name="dept" type="xs:string"/>
          </xs:sequence>
          <xs:attribute name="clg" type="xs:string"/>
        </xs:complexType>
      </xs:element>
      <xs:element name="non_teaching" maxOccurs="unbounded">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="name" type="xs:string"/>
            <xs:element name="id" type="xs:integer"/>
          </xs:sequence>
          <xs:attribute name="clg" type="xs:string"/>
        </xs:complexType>
      </xs:element>
      <xs:element name="student" maxOccurs="unbounded">
        <xs:complexType>
```

```

        <xs:sequence>
        <xs:element name="name" type="xs:string"/>
        <xs:element name="rollno" type="xs:integer"/>
        <xs:element name="dept" type="xs:string"/>
        </xs:sequence>
        <xs:attribute name="clg" type="xs:string"/>
        </xs:complexType>
    </xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>

```

Output :

No errors were found

The following files have been uploaded so far:

[XML document:](#) 

[XML schema:](#) 

Click on any file name if you want to edit the file.

Displaying contents of XML document in a table using XSL :

XSL file : week5_1.xsl

```

<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:template match="/">
    <html>
    <body>
<!--Teaching-->
    <h2>Teaching</h2>
    <table border="1">
        <tr bgcolor="#FFA500">
            <th>College</th>
            <th>Name</th>
            <th>id</th>
            <th>Dept</th>
        </tr>
        <xsl:for-each select="class/teaching">
            <tr>
                <td> <xsl:value-of select="@clg"/> </td>

```

```
 <xsl:value-of select="name"/></td>  <xsl:value-of select="id"/></td> <xsl:choose>   <xsl:when test="dept='CSE'">     <td bgcolor=" #ADD8E6">       <xsl:value-of select="dept"/></td>     </xsl:when>     <xsl:otherwise>       <td bgcolor=" #FFB6C1"><xsl:value-of select="dept"/></td>     </xsl:otherwise>   </xsl:choose>  </tr> </xsl:for-each> </table> | |
```

```

<!-- Non Teaching -->
<h2>Non Teaching</h2>
<table border="1">
  <tr bgcolor="#FFA500">
    <th>College</th>
    <th>Name</th>
    <th>id</th>
  </tr>
  <xsl:for-each select="class/non_teaching">
    <tr>
      <td> <xsl:value-of select="@clg"/> </td>
      <td><xsl:value-of select="name"/></td>
      <td><xsl:value-of select="id"/></td>

    </tr>
  </xsl:for-each>
</table>

```

```

<!-- Student -->
<h2>Student</h2>
<table border="1">
  <tr bgcolor="#FFA500">
    <th>College</th>
    <th>Name</th>
    <th>Roll no</th>
    <th>Dept</th>
  </tr>
  <xsl:for-each select="class/student">
    <tr>
      <td> <xsl:value-of select="@clg"/> </td>
      <td><xsl:value-of select="name"/></td>
      <td><xsl:value-of select="rollno"/></td>
      <xsl:choose>
        <xsl:when test="dept='CSE'">
          <td bgcolor=" #ADD8E6">

```

```

        <xsl:value-of select="dept"/></td>
    </xsl:when>
    <xsl:otherwise>
        <td bgcolor=" #FFB6C1"><xsl:value-of select="dept"/></td>
    </xsl:otherwise>
</xsl:choose>

</tr>
</xsl:for-each>
</table>
<h4>CSE - blue color</h4>
<h4>ECE - pink color</h4>
</body>
</html>
</xsl:template>

</xsl:stylesheet>

```

Output :

Teaching

College	Name	id	Dept
A	T1	101	CSE
B	T2	102	CSE
C	T3	104	ECE

Non Teaching

College	Name	id
A	NT1	111
B	NT2	112
C	NT3	113

Student

College	Name	Roll no	Dept
A	S1	1	ECE
B	S2	2	CSE
C	S3	3	ECE

CSE - blue color

ECE - pink color

WEEK - 6

Aim : Create necessary tables for the application chosen using JDBC, establish the database connectivity.

Scenario 1: Establish connectivity using JDBC drivers.

Scenario 2: Use create and select statements.

Scenario 3: Use insert, update and delete queries.

MySQL Installer :

(1) Download MySQL Installer 8.0.28 from mysql.com downloads.

MySQL Community Downloads

MySQL Installer

General Availability (GA) Releases Archives

MySQL Installer 8.0.28

Select Operating System:
Microsoft Windows


Looking for previous GA versions?

Windows (x86, 32-bit), MSI Installer <small>(mysql-installer-web-community-8.0.28.0.msi)</small>	8.0.28	2.3M	Download
Windows (x86, 32-bit), MSI Installer <small>(mysql-installer-community-8.0.28.0.msi)</small>	8.0.28	435.7M	Download

We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

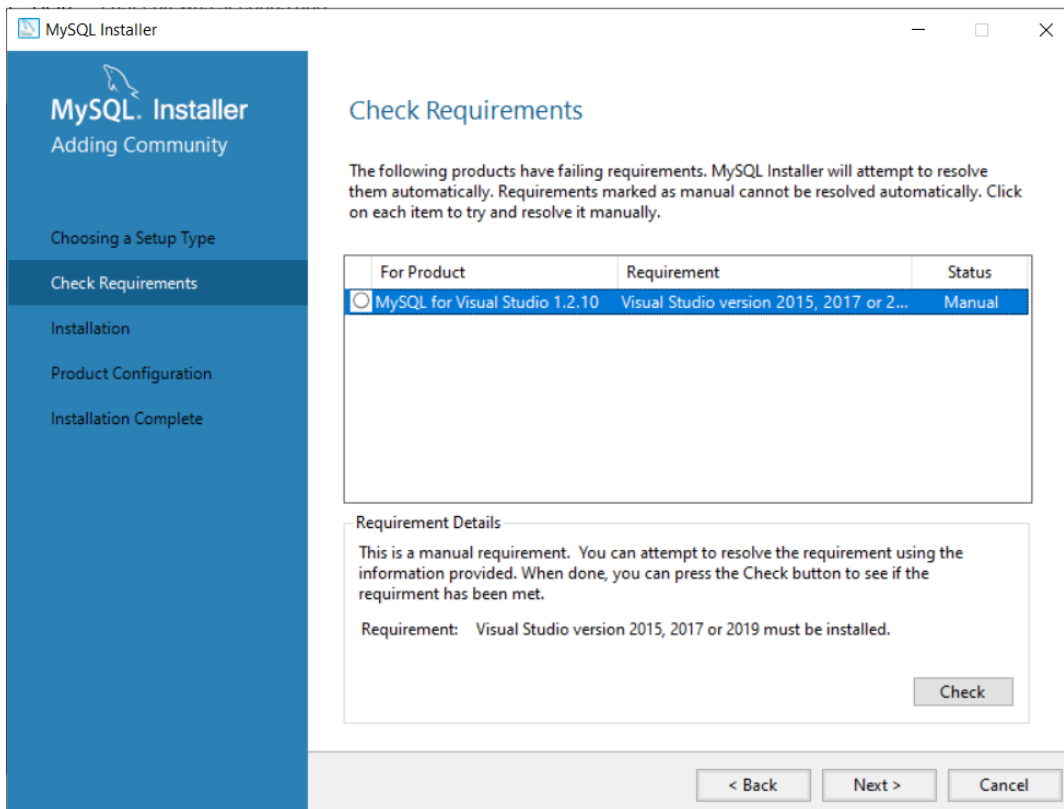
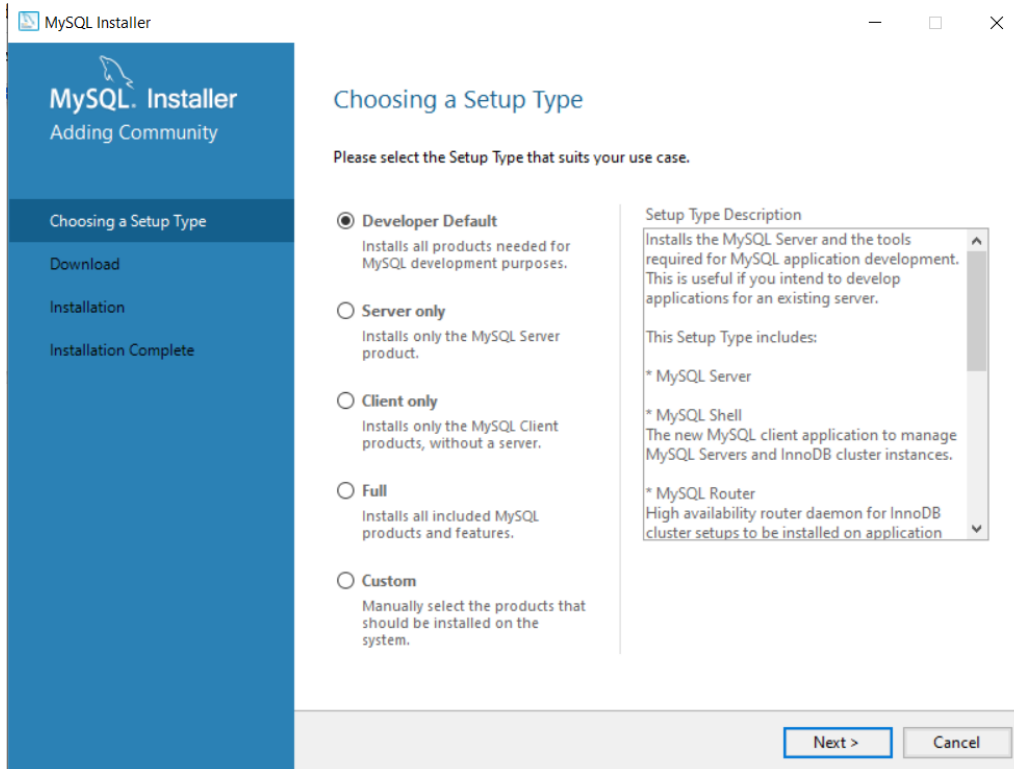
(2) Next complete the installation process :

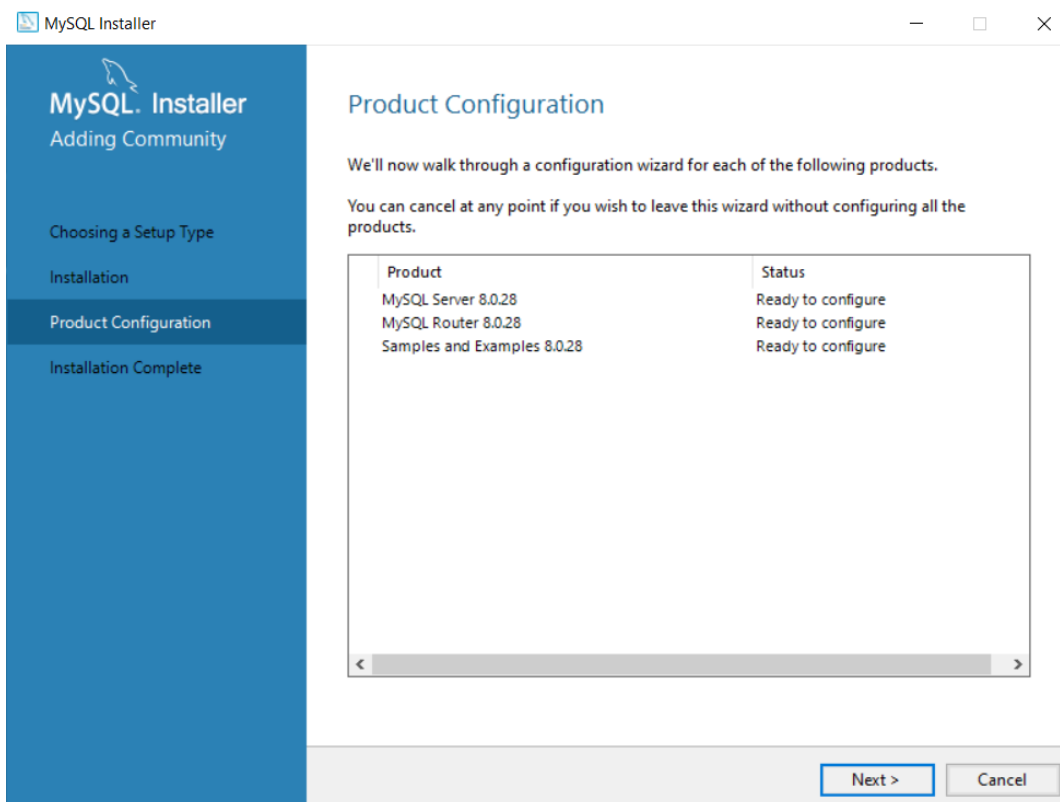
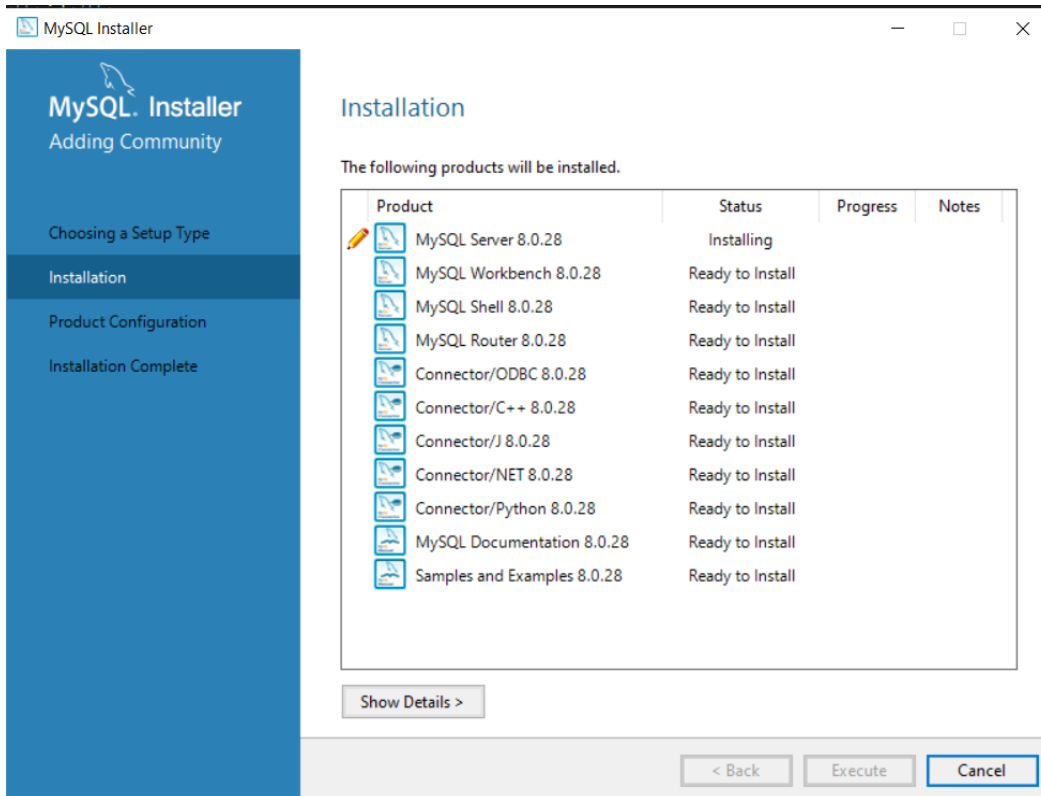
MySQL Installer - Community

 Please wait while Windows configures MySQL Installer - Community

Time remaining: 18 seconds

Cancel





MySQL Installer

MySQL Server 8.0.28

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply Configuration

Type and Networking

Server Configuration Type

Choose the correct server configuration type for this MySQL Server installation. This setting will define how much system resources are assigned to the MySQL Server instance.

Config Type:

Connectivity

Use the following controls to select how you would like to connect to this server.

☒ TCP/IP Port: X Protocol Port:

☒ Open Windows Firewall ports for network access

☐ Named Pipe Pipe Name:

☐ Shared Memory Memory Name:

Advanced Configuration

Select the check box below to get additional configuration pages where you can set advanced and logging options for this server instance.

☐ Show Advanced and Logging Options

MySQL Installer

MySQL Server 8.0.28

Type and Networking

Authentication Method

Accounts and Roles


Windows Service

Apply Configuration

Authentication Method

☒ **Use Strong Password Encryption for Authentication (RECOMMENDED)**

MySQL 8 supports a new authentication based on improved stronger SHA256-based password methods. It is recommended that all new MySQL Server installations use this method going forward.



Attention: This new authentication plugin on the server side requires new versions of connectors and clients which add support for this new 8.0 default authentication (caching_sha2_password authentication).

Currently MySQL 8.0 Connectors and community drivers which use libmysqlclient 8.0 support this new method. If clients and applications cannot be updated to support this new authentication method, the MySQL 8.0 Server can be configured to use the legacy MySQL Authentication Method below.

☐ **Use Legacy Authentication Method (Retain MySQL 5.x Compatibility)**

Using the old MySQL 5.x legacy authentication method should only be considered in the following cases:

- If applications cannot be updated to use MySQL 8 enabled Connectors and drivers.
- For cases where re-compilation of an existing application is not feasible.
- An updated, language specific connector or driver is not yet available.

Security Guidance: When possible, we highly recommend taking needed steps towards upgrading your applications, libraries, and database servers to the new stronger authentication. This new method will significantly improve your security.

MySQL Installer

MySQL Server 8.0.28

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply Configuration

Accounts and Roles

Root Account Password
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

Repeat Password:

Password strength: **Medium**

MySQL User Accounts
Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL User Name	Host	User Role
-----------------	------	-----------

Add User

Edit User

Delete

< Back

Next >

Cancel

MySQL Installer

MySQL Server 8.0.28

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply Configuration

Windows Service

☒ Configure MySQL Server as a Windows Service

Windows Service Details
Please specify a Windows Service name to be used for this MySQL Server instance. A unique name is required for each instance.

Windows Service Name:

☒ Start the MySQL Server at System Startup

Run Windows Service as ...
The MySQL Server needs to run under a given user account. Based on the security requirements of your system you need to pick one of the options below.

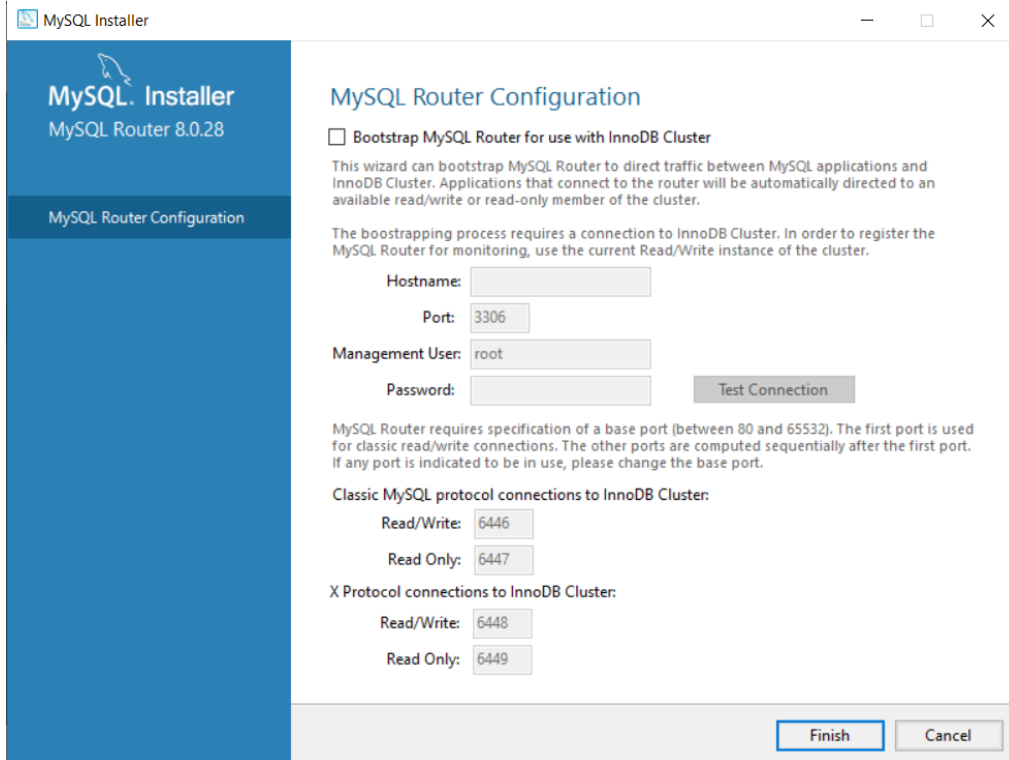
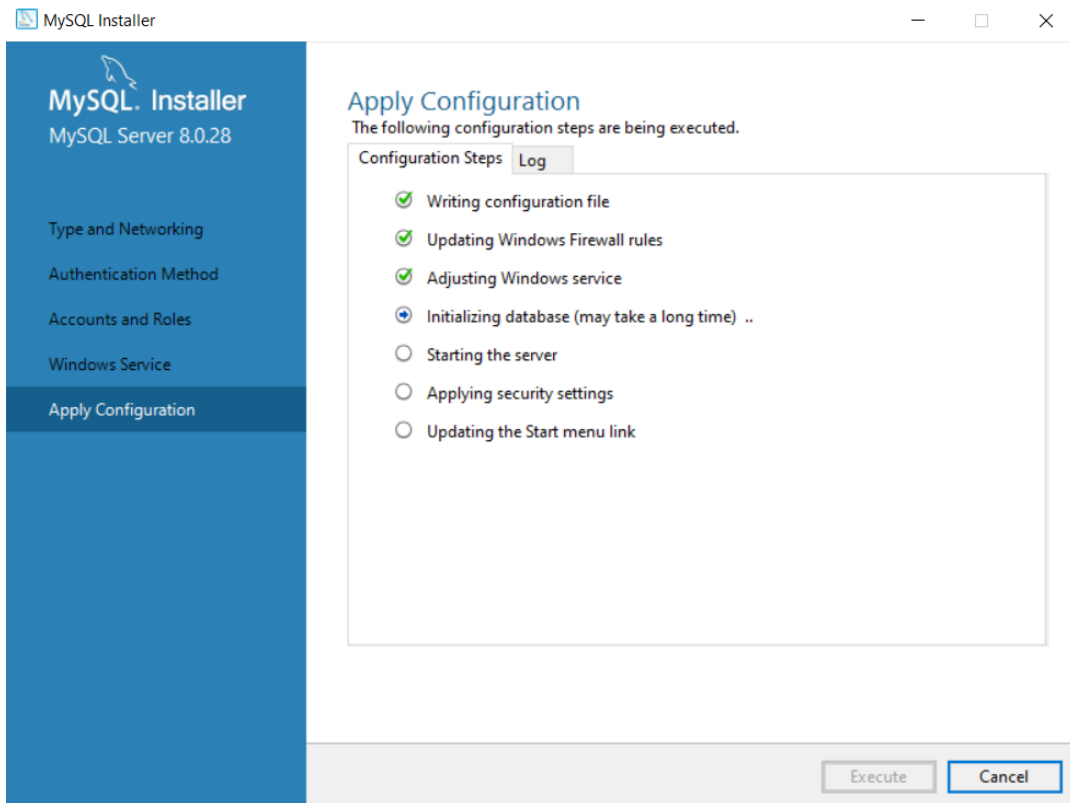
☒ **Standard System Account**
Recommended for most scenarios.

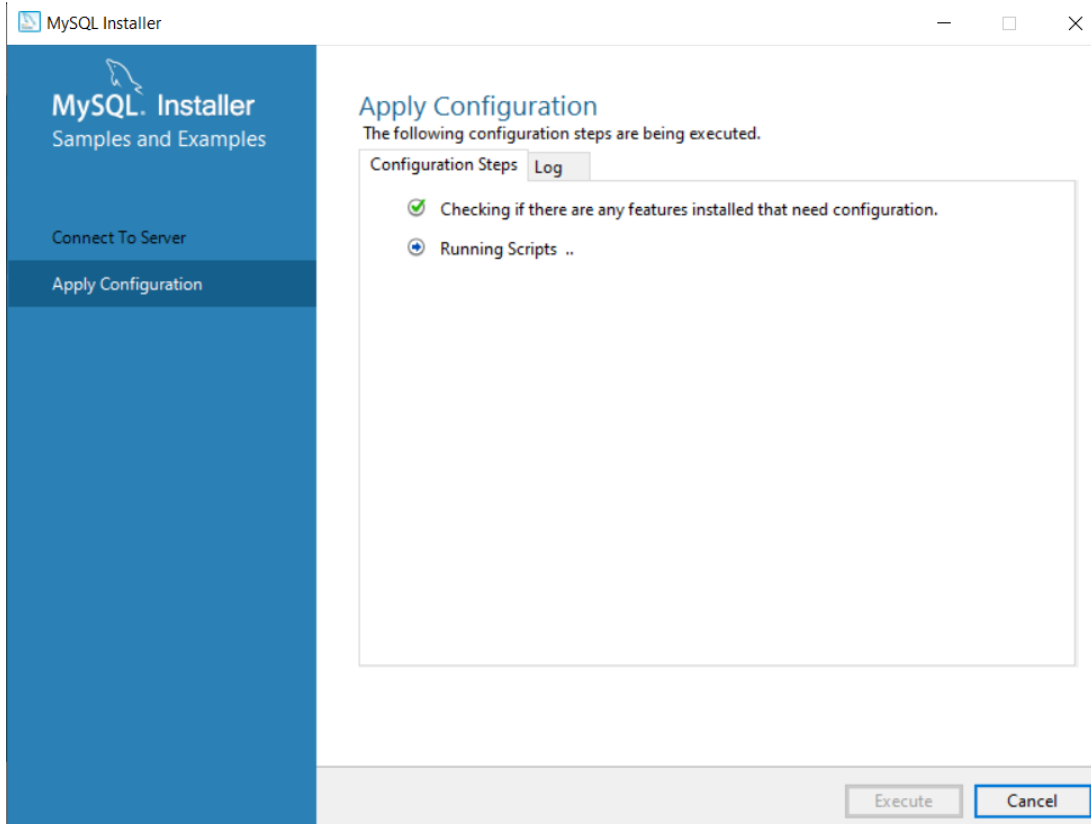
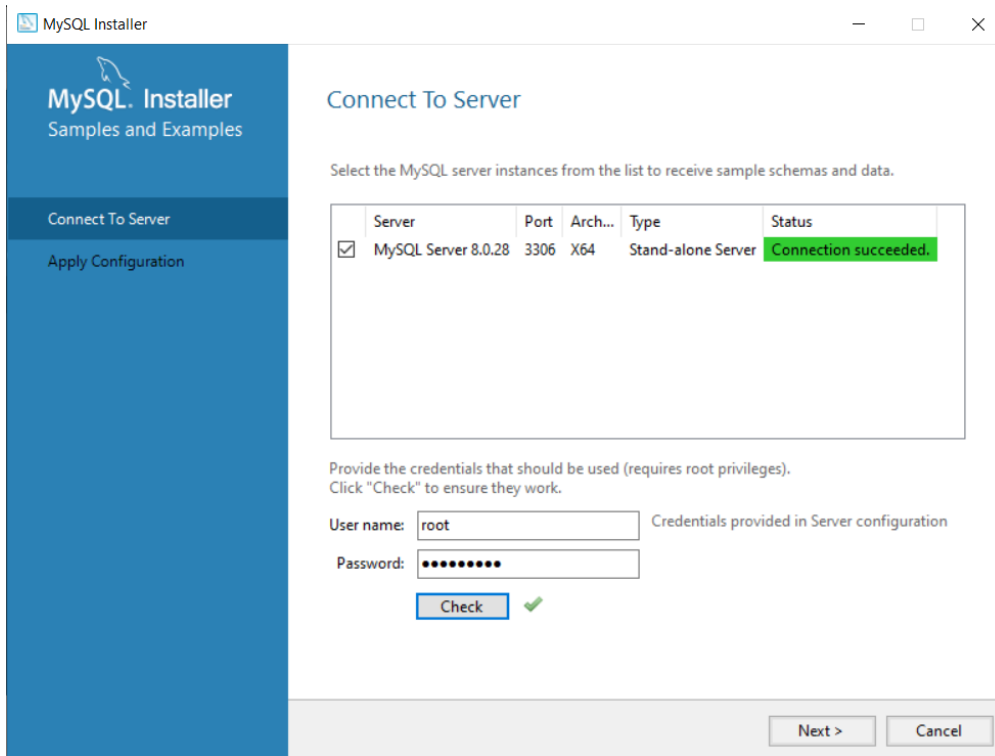
☐ **Custom User**
An existing user account can be selected for advanced scenarios.

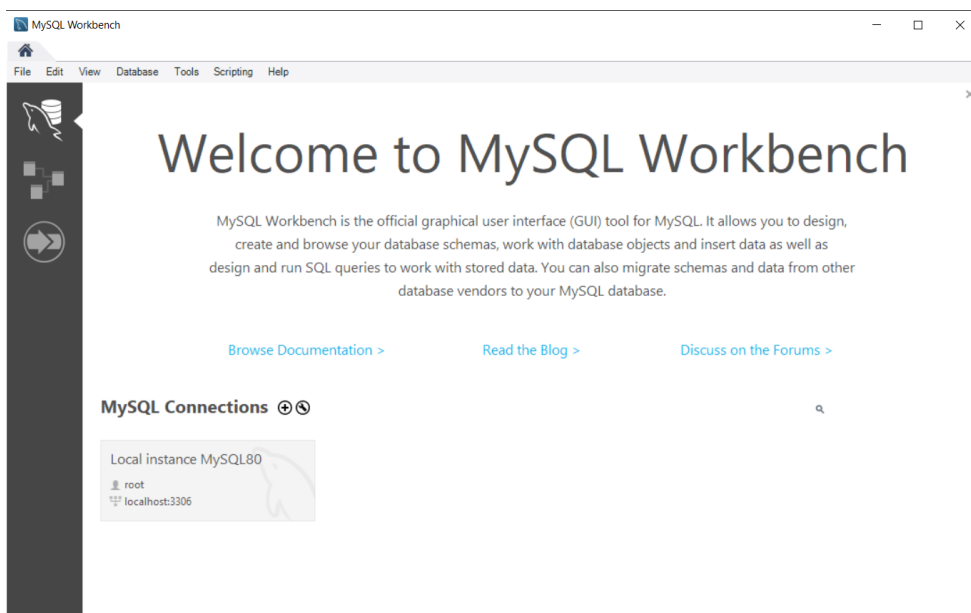
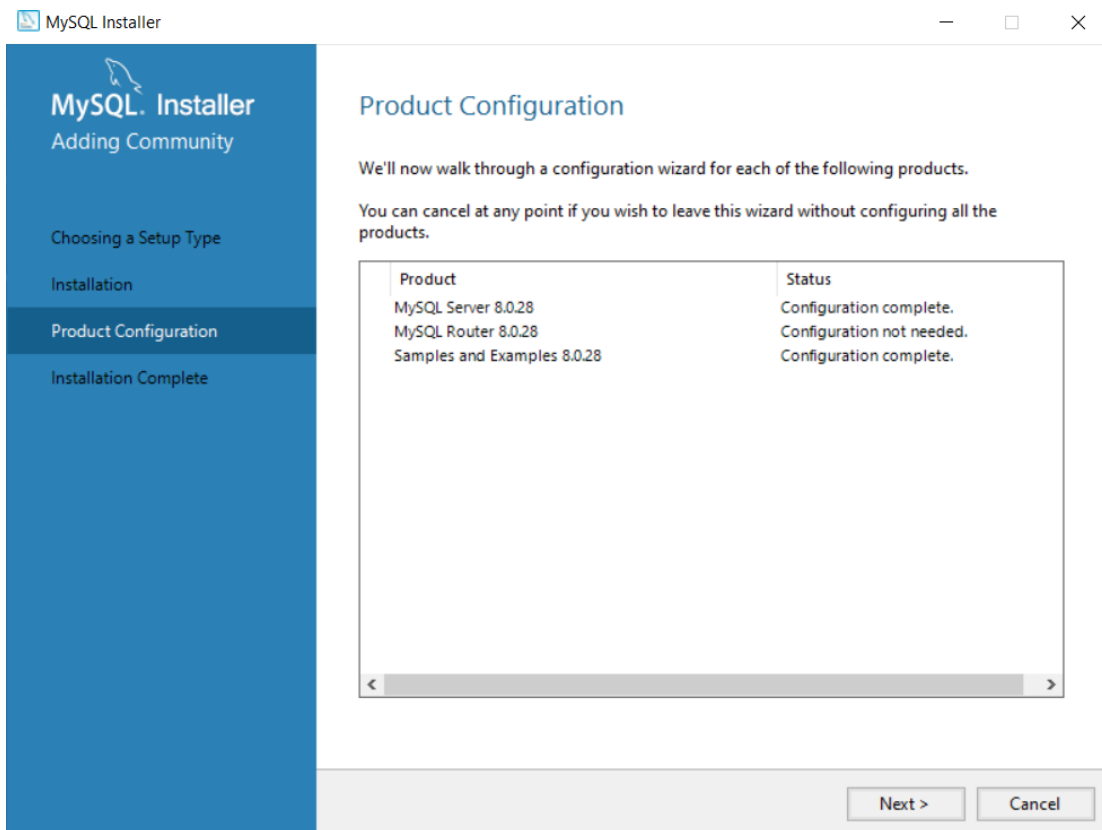
< Back

Next >

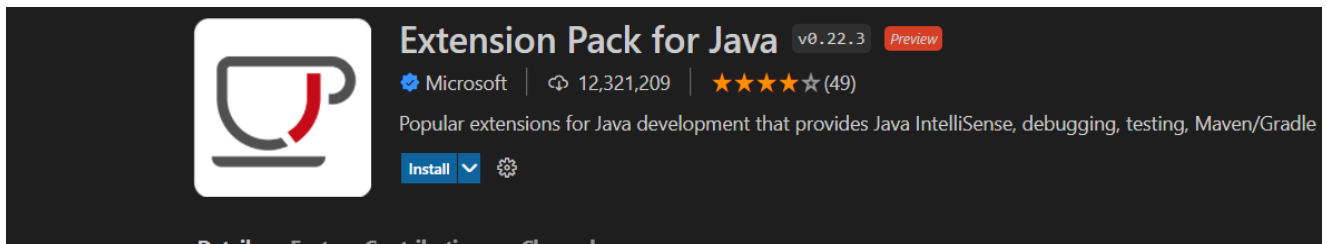
Cancel



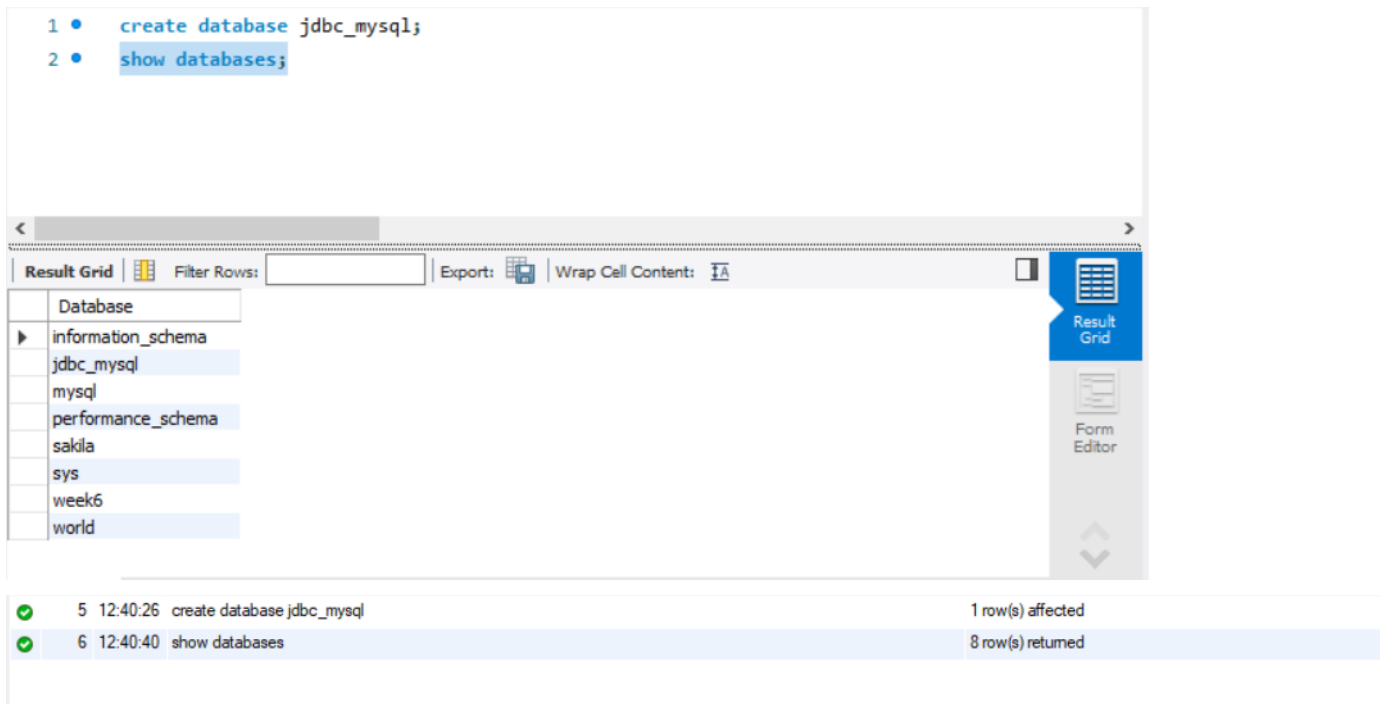




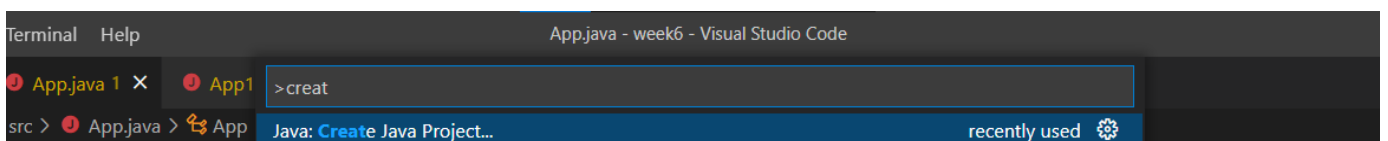
(3) Install Extension Pack for Java in VS code



(4) Open MySQL Command Line Client and create a database :

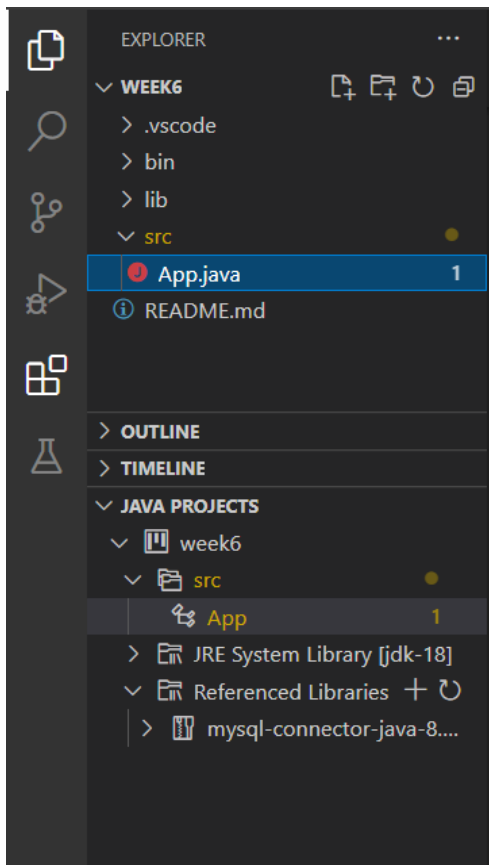


(5) Open VS code and create a new java project in command palette :



Set the location and enter a name for the java project.

(6) Add the jar file - mysql-connector-java-8.0.28 to the Referenced libraries of JAVA PROJECTS :



(7) Edit the code in src/App.java and run the program.

Program :

```
import java.sql.*;
import java.util.Scanner;
public class App {
    static Connection con;
    static String table_name;
    public static void create_table(String table_name) throws Exception{
        Statement st=con.createStatement();
        st.executeUpdate("create table if not exists `" +table_name+"` ( `id` numeric
unique not null, `name` varchar(20) not null,`dept` varchar(20) not null);");
    }
    public static void display_values(String table_name) throws Exception{
        Statement st=con.createStatement();
        try{
            ResultSet rs=st.executeQuery("select * from "+table_name);
            System.out.println("\nid        name        dept");
            while(rs.next()){
                System.out.println(rs.getInt(1)+"        "+rs.getString(2)+"
"+rs.getString(3));
            }
        }
    }
}
```



```

        catch(Exception ex){
            System.out.println("\n"+ex.getMessage()+"\n");
        }
    }
    public static void insert_values(String table_name,int id,String name,String dept)
throws Exception{
        String insert = "insert into `" +table_name+"` values(?,?,?)";
        PreparedStatement pst = con.prepareStatement(insert);
        pst.setInt(1, id);
        pst.setString(2, name);
        pst.setString(3, dept);
        try{
            pst.executeUpdate();
        }catch(Exception ex){
            System.out.println(ex.getMessage());
        }
    }
    public static void delete_values(String table_name,int id) throws Exception{
        Statement st=con.createStatement();
        try{
            st.executeUpdate("delete from `" +table_name+"` where id = "+id);
        }
        catch(Exception ex){
            System.out.println(ex.getMessage());
        }
    }
    public static void update_values(String table_name,int id,String name,String dept)
throws Exception{
        Statement st=con.createStatement();
        try{
            st.executeUpdate("update " +table_name+" set name = \"" +name+"\", dept =
\"" +dept+"\" where id = "+id);
        }
        catch(Exception ex){
            System.out.println(ex.getMessage());
        }
    }
    public static void main(String[] args) throws Exception {
        Scanner sc=new Scanner(System.in);

        Class.forName("com.mysql.cj.jdbc.Driver");

        con=DriverManager.getConnection("jdbc:mysql://localhost:3306/jdbc_mysql","root","Firoza
@22");
        while(true){
            System.out.println("\n\n1. Create table \n2. Display values \n3. Insert
values \n4. Delete values \n5. Update values \n6. Exit\n");
            System.out.println("Enter your choice");
            int ch=Integer.valueOf(sc.nextLine());
            switch(ch){
                case 1:{

```

```

        System.out.println("Enter the table Name : ");
        String table_name = sc.nextLine();
        create_table(table_name);
    };break;
case 2:{
    System.out.println("Enter the table Name : ");
    String table_name = sc.nextLine();
    display_values(table_name);
};break;
case 3:{
    System.out.println("Enter the table Name : ");
    String table_name = sc.nextLine();
    System.out.println("Enter id");
    int id = Integer.valueOf(sc.nextLine().trim());
    System.out.println("Enter name");
    String name = sc.nextLine().trim();
    System.out.println("Enter department");
    String dept = sc.nextLine().trim();
    insert_values(table_name,id,name,dept);
};break;
case 4:{
    System.out.println("Enter the table Name : ");
    String table_name = sc.nextLine().trim();
    System.out.println("Enter id that is to be deleted");
    int id = Integer.valueOf(sc.nextLine().trim());
    delete_values(table_name,id);

};break;
case 5:{
    System.out.println("Enter the table Name : ");
    table_name = sc.nextLine().trim();
    System.out.println("Enter id that is to be updated");
    int id = Integer.valueOf(sc.nextLine().trim());
    System.out.println("Enter updated name");
    String name = sc.nextLine().trim();
    System.out.println("Enter updated department");
    String dept = sc.nextLine().trim();
    update_values(table_name,id,name,dept);
};break;
default:{System.exit(0);};
}

}

}
}

```

Output :

```
PS C:\Users\firoz\Documents\firoza_sem6\web_tec
jdk-18\bin\java.exe' '-XX:+ShowCodeDetailsInExc
```

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

1

Enter the table Name :

employee

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

3

Enter the table Name :

employee

Enter id

1

Enter name

abc

Enter department

cse

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

3

Enter the table Name :

employee

Enter id

2

Enter name

pqr

Enter department

ece

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

2

Enter the table Name :

employee

id	name	dept
1	abc	cse
2	pqr	ece

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

4

Enter the table Name :

employee

Enter id that is to be deleted

1

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

2

Enter the table Name :

employee

id	name	dept
2	pqr	ece

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

5

Enter the table Name :

employee

Enter id that is to be updated

2

Enter updated name

xyz

Enter updated department

civ

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

2

Enter the table Name :

employee




id	name	dept
2	xyz	civ

1. Create table
2. Display values
3. Insert values
4. Delete values
5. Update values
6. Exit

Enter your choice

6

- 3 • use jdbc_mysql;
- 4 • select * from employee;

<  Filter Rows: Edit:  

	id	name	dept
▶	2	xyz	civ
*	NULL	NULL	NULL

✓	8	12:45:23	use jdbc_mysql	0 row(s) affected
✓	9	12:45:23	select * from employee LIMIT 0, 1000	1 row(s) returned