

Question-

In College fest, Students want to take registrations for a Debate event and want to keep track of student details based on the course. Help the students to create a table with the help of Spring, MVC, Hibernate ORM to perform CRUD operations on the table.

Create a Dynamic web project and make sure that the following operations can be performed.

1. Insert new records into the table.
2. Update existing records into the table.
3. Delete existing records from the table.
4. Print all records from the table.
5. Add a security layer where there will be two roles USER, ADMIN.
6. Admin will have the privilege of performing all the operations.
7. User can view/save the details.

Test Scenarios:

Step 1. Please execute following db queries (MySQL) in following order:

A) Create Database:

```
create database spring;  
use spring;
```

B) Execute the uploaded StudentManagementApplication

C) Insert Admin and User roles for testing purposes:

```
-- ADMIN: [Manish/admin@123]  
insert into spring.users (username,password) values  
( 'Manish', '$2a$12$ISGwm.2Jnm4.ip3cNOSbf.2JvbAzrNaujl4RZhnzrmY.6jy7atfGa' );  
  
-- USER: [Shyam/user@123]  
insert into spring.users (username,password) values  
( 'Shyam', '$2a$12$Em/hSqccq8xe8qMcqW5nE.WwACqtcPp6Oms05zLCI4.dBxj7XaUJS'  
 );  
  
insert into spring.roles (name) values ('ADMIN');  
insert into spring.roles (name) values ('USER');  
  
insert into spring.users_roles values (1,1),(2,2);
```

Step 2)

Please use below test credentials for Admin and User roles:

Admin:

Username: Manish

Password: admin@123

Test User:

Username: Shyam

Password: user@123

Step 3) Login to application using admin role “Manish”



Please sign in

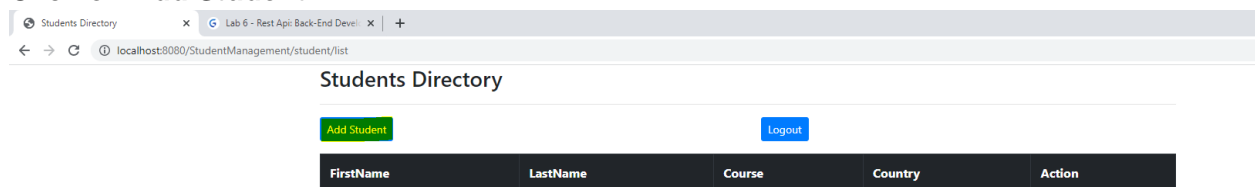
Manish

.....

Sign in

Step 4) Insert new records into the table (using Admin role)

Click on Add Student



Students Directory

Add Student Logout

FirstName	LastName	Course	Country	Action
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Enter following Student Details:

Student Id	FirstName	LastName	Course	Country
1	Manish	Shivani	B.Tech	India

Save Student

Lab 6 - Rest Api: Back-End Deve

localhost:8080/StudentManagement/student/showFormForAdd

Student Directory

Student

Manish

Shivani

B.Tech.

India

Save

[Back to Students List](#)

Click Save: Record gets added in table.

Students Directory

Lab 6 - Rest Api: Back-End Deve

localhost:8080/StudentManagement/login

Add Student

Login

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	India	<div>UpdateDelete</div>

Step 5) Update existing records into table (using Admin role)

Update Country of Student: Manish Shivani from “India” to “USA”

← → ↻ ⓘ localhost:8080/StudentManagement/student/list

Students Directory

[Add Student](#) [Logout](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	India	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

Click Update:

← → ↻ ⓘ localhost:8080/StudentManagement/student/showFormForUpdate?studentId=1

Student Directory

Student

[Save](#)

[Back to Students List](#)

Click Save and Country is Updated to USA:

← → ↻ ⓘ localhost:8080/StudentManagement/student/list

Students Directory

[Add Student](#) [Logout](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	USA	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

Step 6) Delete existing records from table (using Admin role)

Delete record Suresh Reddy from below table.

Students Directory

[Add Student](#) [Logout](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	India	Update Delete
Suresh	Reddy	B.Tech	India	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

Click on Delete

Students Directory

[Add Student](#)

localhost:8080 says
Are you sure you want to delete this Student?
[OK](#) [Cancel](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	India	Update Delete
Suresh	Reddy	B.Tech	India	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

Press Ok and Student “Suresh Reddy” gets Deleted:

Students Directory

[Add Student](#) [Logout](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	India	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

Step 7) Print all records from table

← → ↻ localhost:8080/StudentManagement/student/list

Students Directory

Add Student

Logout

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	USA	<button>Update</button> <button>Delete</button>
Murali	Mohan	B.Arch	Canada	<button>Update</button> <button>Delete</button>
Daniel	Denson	B.Tech	New Zealand	<button>Update</button> <button>Delete</button>
Tanya	Gupta	B.Com	USA	<button>Update</button> <button>Delete</button>

```
16 • select * from student;
```

result Grid

Filter Rows:

Edit

Export/Import:

Wrap Cell Content:

id	country	course	first_name	last_name
1	USA	B.Tech.	Manish	Shivani
3	Canada	B.Arch	Murali	Mohan
4	New Zealand	B.Tech	Daniel	Denson
5	USA	B.Com	Tanya	Gupta
NULL	NULL	NULL	NULL	NULL

Step 8) Add a security layer where there will be two roles USER, ADMIN.

```
17
```

```
18 • Select * from roles;
```

Result Grid

Filter Rows:

Edit:

Export

role_id	name
1	ADMIN
2	USER
NULL	NULL

```
16 • select * from users;
```

```
17
```

```
18
```

result Grid

Filter Rows:

Edit:

Export/Import:

Wrap Cell Content:

user_id	password	username
1	\$2a\$12\$ISGwm.2Jnm4.ip3cNOSbf.2JvbAzrNaujI4RZhnzrmY....	Manish
2	\$2a\$12\$Em/hSqqccq8xe8qMcqW5nE.WwACqtcPp6Oms05zLC...	Shyam
NULL	NULL	NULL

Step 9) Admin will have the privilege of performing all the operations.
(All the scenarios tested above used role Admin)

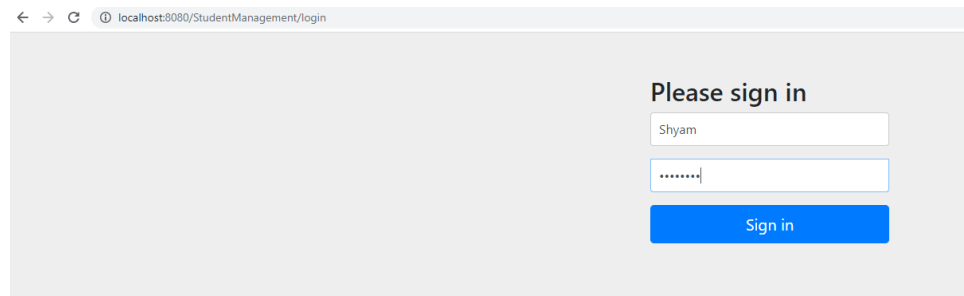
User Role can view/save the details.

A) Login using User Credentials:

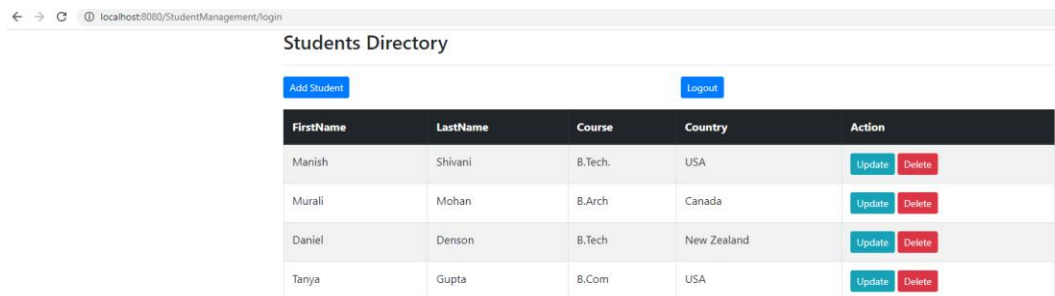
Test User:

Username: Shyam

Password: user@123



B) Successfully logged in:



FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	USA	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete

C) User can save the details. Click on “Add Student” and add following details:

Student Id	FirstName	LastName	Course	Country
1	Suresh	Reddy	B.Tech	India

← → ↻ ⓘ localhost:8080/StudentManagement/student/showFormForAdd

Student Directory

Student

[Back to Students List](#)

Student record is added:

← → ↻ ⓘ localhost:8080/StudentManagement/student/list

Students Directory

[Add Student](#) [Logout](#)

FirstName	LastName	Course	Country	Action
Manish	Shivani	B.Tech.	USA	Update Delete
Murali	Mohan	B.Arch	Canada	Update Delete
Daniel	Denson	B.Tech	New Zealand	Update Delete
Tanya	Gupta	B.Com	USA	Update Delete
Suresh	Reddy	B.Tech	India	Update Delete

D) Click on Update and following message will be displayed:

← → ↻ ⓘ localhost:8080/StudentManagement/student/showFormForUpdate?studentId=1

HTTP Status 403 - Access is denied

Hi Shyam, you do not have permission to access this page!

E) Click on Delete and following message will be displayed:

← → ↻ ⓘ localhost:8080/StudentManagement/student/delete?studentId=1

HTTP Status 403 - Access is denied

Hi Shyam, you do not have permission to access this page!