

## BRIDGE BATCH TEST

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### QUESTION:

For Student: Perform the CRUD operations on the given domain. Also add functionality to provide login and register the user. You need to have User table, once the user registers, this information should go to User Table. When the user provides a Username and Password for Login, the system should provide as Valid user or Invalid user.

1. Controller - register, login
2. Pojo - extra
3. Repository. - extra
4. Application.properties

### OUTPUT AFTER THE CODE

# CODE:

## CONTROLLER

```
UserRepository.java  Controller.java  User.java
1 package com.example.demo.Controller;
2 |
3 import java.util.List;
19
20 @RestController
21 public class Controller {
22
23     // USER METHODS HERE...
24
25     // Use this object to use methods of UserRepository
26     @Autowired
27     UserRepository userObject;
28
29     // Method to add new User
30     @PostMapping(value="/register")
31     public String register(@RequestBody User newUser) {
32         userObject.save(newUser);
33         return "Added New User!! :D";
34     }
35
36     // Method to login with registered-user only
37     @GetMapping(value="/login")
38     public String login(@RequestBody User user) {
39         Optional<User> userOptional = userObject.findById(user.getUsername(), user.getPassword());
40
41         if(userOptional.isPresent())
42             return "Welcome User!\nGood to see you back!! =D";
43         else
44             return "Not a valid user! :(";
45     }
46
47     // STUDENT METHODS HERE...
48
49     // Use this object to use methods of StudentRepository
50     @Autowired
51     StudentRepository studentObject;
52
53
54     // GET ALL STUDENTS
55     @GetMapping(value="/viewAll")
56     public Object getAllStudents() {
57         List<Student> list = studentObject.getAllStudents();
58         System.out.print("Student Details: ");
59         for(Student p : list)
60             System.out.print(p);
61         return list;
62     }
63
64     // GET STUDENT BY ID
65     @GetMapping(value="/view/{id}")
66     public Student getStudentById(@PathVariable int id) {
67         System.out.print("Student Detail with id as " + id + " : ");
68         Student p = studentObject.getStudentById(id);
69         return p;
70     }
71
72     // ADDING NEW STUDENT RECORDS
73     @PostMapping(value="/add")
74     public String addStudent(@RequestBody Student newStudent) {
75         studentObject.save(newStudent);
76         return "Added Student!! :D";
77     }
78
79     // UPDATING VALUES FOR EXSISTING STUDENT
80     @PutMapping(value="/update")
81     public String updateRecord(@RequestBody Student student) {
82         Optional<Student> studentOptional = studentObject.findById(student.getId());
83
84         if(studentOptional.isPresent()) {
85             Student toUpdate = studentOptional.get();
86
87             toUpdate.setName(student.getName());
88             toUpdate.setStandard(student.getStandard());
89             toUpdate.setDateOfBirth(student.getDateOfBirth());
90             toUpdate.setBloodGroup(student.getBloodGroup());
```

```

91         studentObject.save(toUpdate);
92     }
93     return "Updated Record for student! :D";
94 }
95
96     return "No such student exists found! :(";
97 }
98
99 // DELETE STUDENT WITH GIVEN ID
100 @DeleteMapping("/delete/{id}")
101 public String delete(@PathVariable int id) {
102     System.out.println("Given id : " + id);
103
104     studentObject.deleteById(id);
105
106     return "Record Deleted Successfully!! :D";
107 }
108 }
109 }

```

## POJO

## USER

```

User.java X
1 import jakarta.persistence.Entity;
2
3 @Entity
4 @Table(name="user_details")
5 public class User {
6
7     @Id
8     @Column(name="username")
9     private String username;
10
11     @Column(name="password")
12     private String password;
13
14     // Constructors
15     public User() { }
16
17     public User(String username, String password) {
18         this.username = username;
19         this.password = password;
20     }
21
22     // Get Methods
23     public String getUsername() {
24         return this.username;
25     }
26
27     public String getPassword() {
28         return this.password;
29     }
30
31     // Set Methods
32     public void setUsername(String username) {
33         this.username = username;
34     }
35
36     public void setPassword(String password) {
37         this.password = password;
38     }
39 }

```

## STUDENT

```
Student.java × User.java application.properties UserRepository.java StudentRepository.java
1 package com.example.demo.Student;
2
3 import jakarta.persistence.Entity;
4
5
6
7
8 @Entity
9 @Table(name="student_details")
10 public class Student {
11
12     @Id
13     @Column(name="id")
14     private int studentId;
15
16     @Column(name="name")
17     private String name;
18
19     @Column(name="standard")
20     private int standard;
21
22     @Column(name="date_of_birth")
23     String dateOfBirth;
24
25     @Column(name="blood_group")
26     private String bloodGroup;
27
28     // Constructors
29     public Student() { }
30
31     public Student(int id, String name, int standard, String dob, String bloodGroup) {
32         this.studentId = id;
33         this.name = name;
34         this.standard = standard;
35         this.dateOfBirth = dob;
36         this.bloodGroup = bloodGroup;
37     }
38
39     // Get methods
40     public int getId() {
41         return this.studentId;
42     }
43
44     public String getName() {
45         return this.name;
46     }
47
48     public int getStandard() {
49         return this.standard;
50     }
51
52     public String getDateOfBirth() {
53         return this.dateOfBirth;
54     }
55
56     public String getBloodGroup() {
57         return this.bloodGroup;
58     }
59
60     // Set Methods
61     public void setId(int id) {
62         this.studentId = id;
63     }
64
65     public void setName(String name) {
66         this.name = name;
67     }
68
69     public void setStandard(int standard) {
70         this.standard = standard;
71     }
72
73     public void setDateOfBirth(String dob) {
74         this.dateOfBirth = dob;
75     }
76
77     public void setBloodGroup(String bloodGroup) {
78         this.bloodGroup = bloodGroup;
79     }
80
81 }
82
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```

## REPOSITORIES

### USER REPOSITORY

```
UserRepository.java × User.java
1 package com.example.demo.Repository;
2 {
3 import java.util.Optional;
4
5
6
7
8
9
10 public interface UserRepository extends JpaRepository<User, String>{
11     @Query(value="select * from user_details where username = ?1 and password = ?2", nativeQuery=true)
12     public Optional<User> findById(String username, String Password);
13 }
```

### STUDENT REPOSITORY

```
User.java StudentRepository.java ×
1 package com.example.demo.Repository;
2
3 import java.util.List;
4
5
6
7
8
9
10 public interface StudentRepository extends JpaRepository<Student, Integer>{
11
12     // GET ALL STUDENTS
13     @Query(value="select * from student_details", nativeQuery=true)
14     public List<Student> getAllStudents();
15
16     // GET STUDENTS BY ID
17     @Query(value="select * from student_details where id = ?1", nativeQuery=true)
18     public Student getStudentById(int id);
19 }
```

### APPLICATION.PROPERTIES

```
User.java application.properties × UserRepository.java StudentRepository.java
1 server.port=8083
2
3 spring.datasource.url=jdbc:mysql://127.0.0.1:3306/db
4
5 spring.datasource.username=root
6 spring.datasource.password=tiger
7
8 spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
9 spring.jpa.database-platform=org.hibernate.dialect.MySQL8Dialect
10 spring.jpa.generate-ddl=true
11 spring.jpa.hibernate.ddl-auto=update
```

---

# OUTPUT:

## USER

### REGISTER

The screenshot shows a REST client interface with the following details:

- URL:** `http://localhost:8083/register`
- Method:** `POST`
- Body:**

```
{  "username": "Kunal",  "password": "Pass"}
```
- Response:**

```
1  Added New User!! :D
```
- Status:** `200 OK`, **Time:** `19 ms`, **Size:** `183 B`

### LOGIN

### VALID

The screenshot shows a REST client interface with the following details:

- URL:** `http://localhost:8083/login`
- Method:** `GET`
- Body:**

```
{  "username": "Kunal",  "password": "Pass"}
```
- Response:**

```
1  Welcome User!
2  Good to see you back!! =D
```
- Status:** `200 OK`, **Time:** `8 ms`, **Size:** `203 B`

### INVALID

The screenshot shows a REST client interface with the following details:

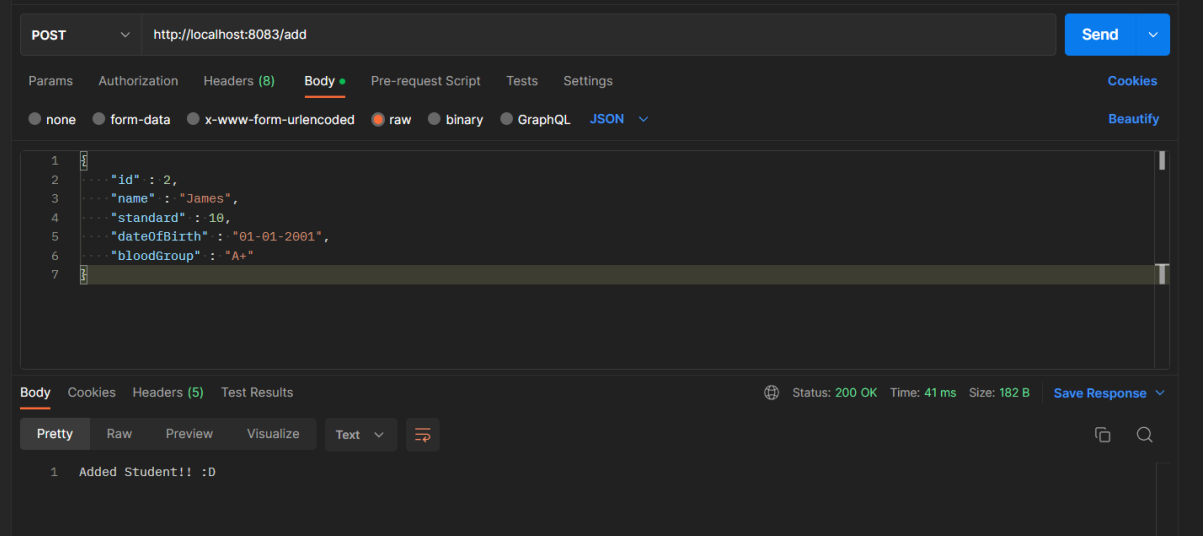
- URL:** `http://localhost:8083/login`
- Method:** `GET`
- Body:**

```
{  "username": "James",  "password": "Pass"}
```
- Response:**

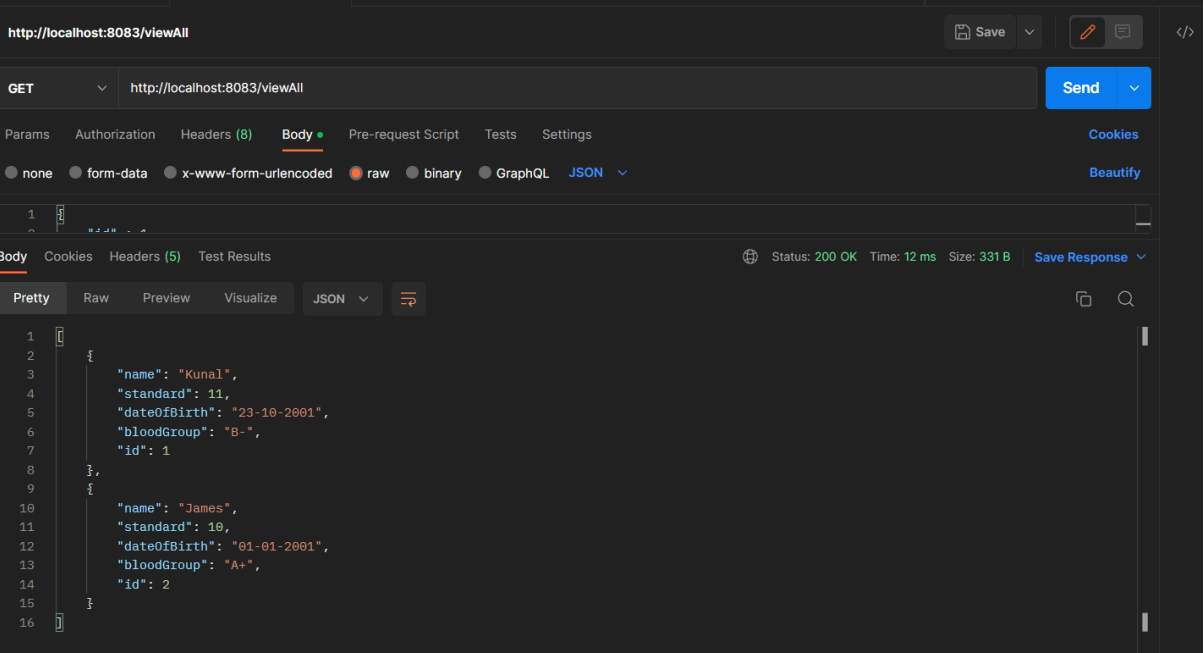
```
1  Not a valid user! :(
```
- Status:** `200 OK`, **Time:** `14 ms`, **Size:** `184 B`

# STUDENT

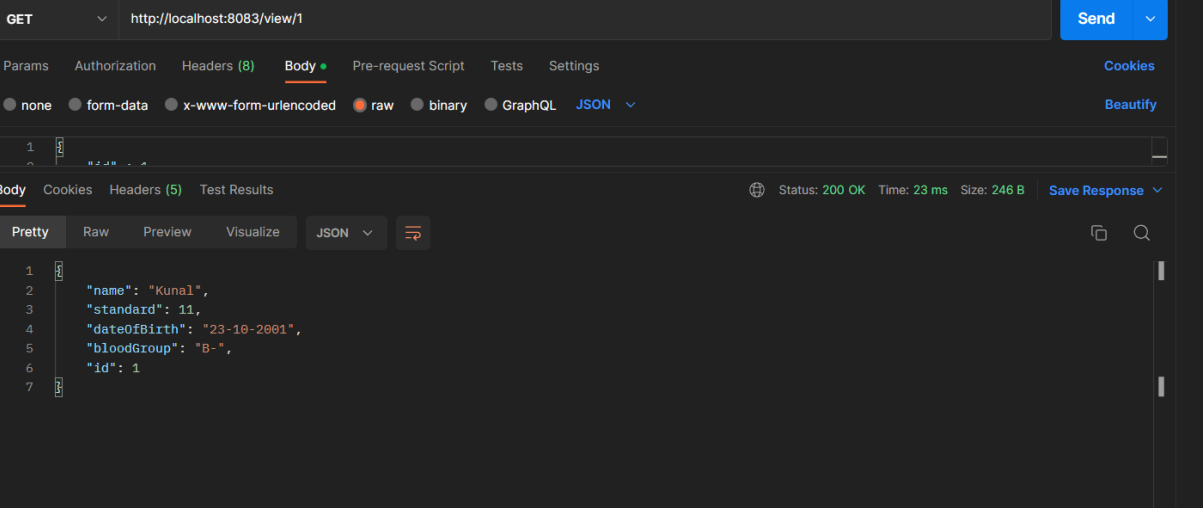
## POST



## GET



## GET BY ID



PUT

http://localhost:8083/update

PUT

http://localhost:8083/update

Send

ParamsAuthorizationHeaders (8)BodyPre-request ScriptTestsSettings

noneform-datax-www-form-urlencodedrawbinaryGraphQLJSON

Beautify

1234567

```
[{"id": 2, "name": "Bond James Bond", "standard": 7, "dateOfBirth": "05-01-2001", "bloodGroup": "A+"}]
```

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 40 msSize: 194 BSave Response

PrettyRawPreviewVisualizeText

1Updated Record for student! =D

DELETE

http://localhost:8083/delete/1

DELETE

http://localhost:8083/delete/1

Send

ParamsAuthorizationHeaders (8)BodyPre-request ScriptTestsSettings

noneform-datax-www-form-urlencodedrawbinaryGraphQLJSON

Beautify

1

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 21 msSize: 196 BSave Response

PrettyRawPreviewVisualizeText

1Record Deleted Successfully!! :D

OUTPUT AFTER DELETE:

http://localhost:8083/viewAll

GET

http://localhost:8083/viewAll

Send

ParamsAuthorizationHeaders (8)BodyPre-request ScriptTestsSettings

noneform-datax-www-form-urlencodedrawbinaryGraphQLJSON

Beautify

123456789

```
{  "name": "Bond James Bond",  "standard": 7,  "dateOfBirth": "05-01-2001",  "bloodGroup": "A+",  "id": 2}
```

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 8 msSize: 257 BSave Response

PrettyRawPreviewVisualizeJSON