**Spring Testing Exercises**

**Exercise 1: Basic Unit Test for a Service Method**

Task: Write a unit test for a service method that adds two numbers.

Service:

@Service public class CalculatorService {

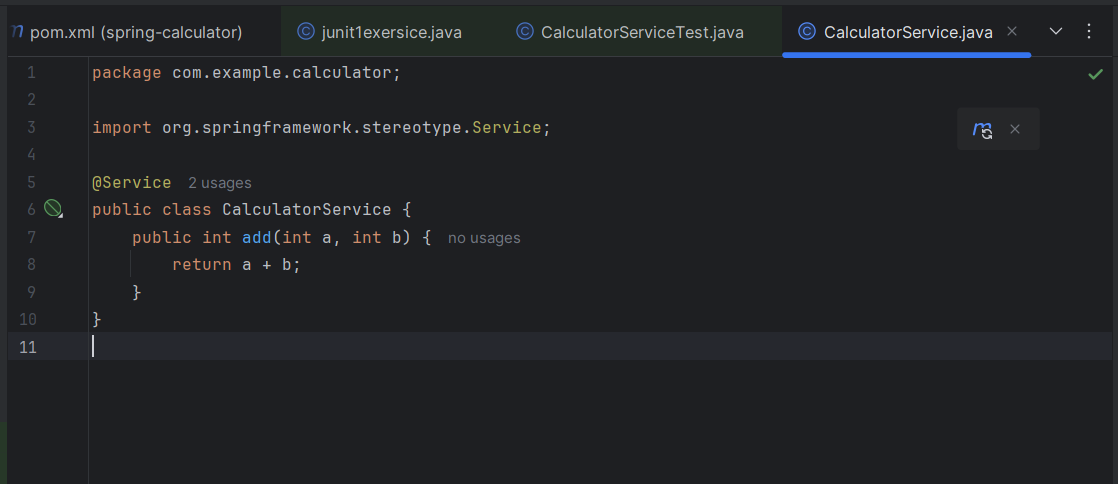
public int add(int a, int b) {

return a + b; } }

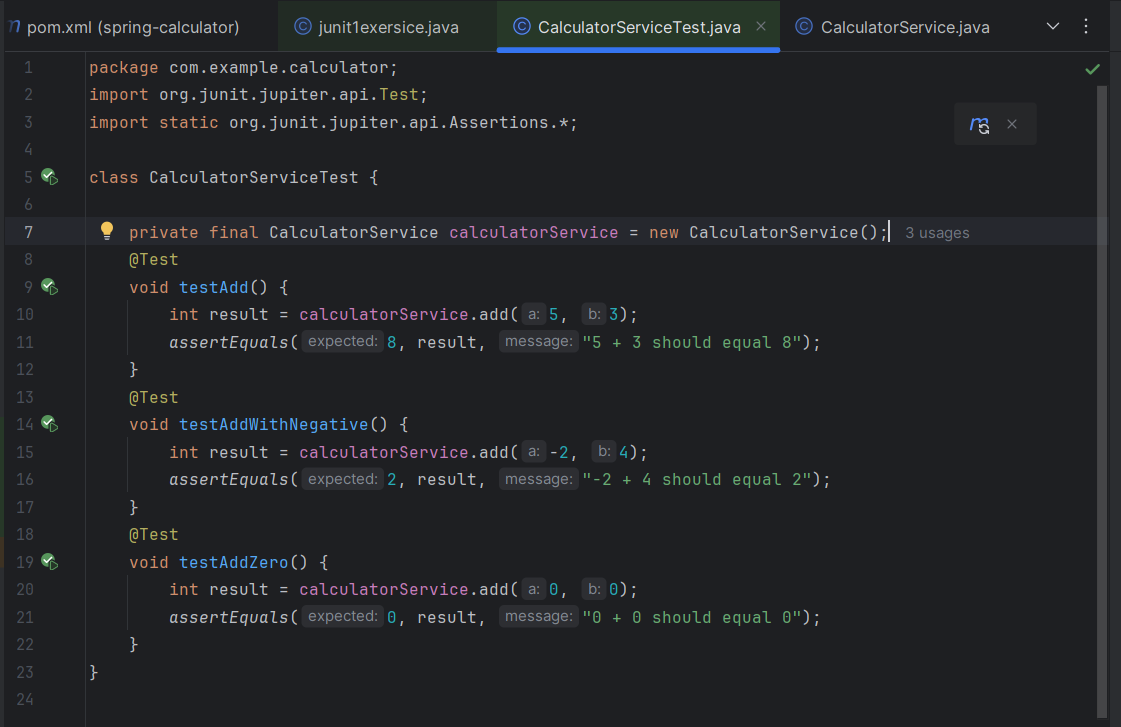
Test: Write code for this.

**SOLUTION:**

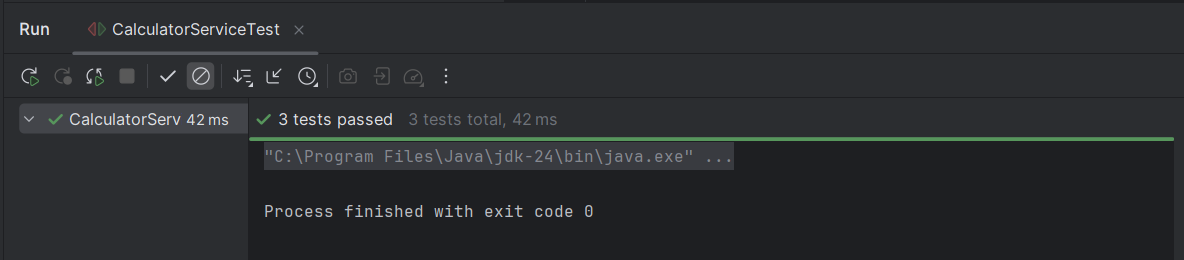
**CalculatorService.java:**

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**CalculatorServiceTest.java:**

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**OUTPUT:**

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**Exercise 2: Mocking a Repository in a Service Test**

Task: Test a service that uses a repository to fetch data.

Entity:

@Entity

public class User {

@Id

private Long id;

private String name;

// getters and setters }

Repository:

public interface UserRepository extends JpaRepository {

}

Service:

@Service public class UserService {

@Autowired

private UserRepository userRepository;

public User getUserById(Long id) {

return userRepository.findById(id).orElse(null);

} }

Test:

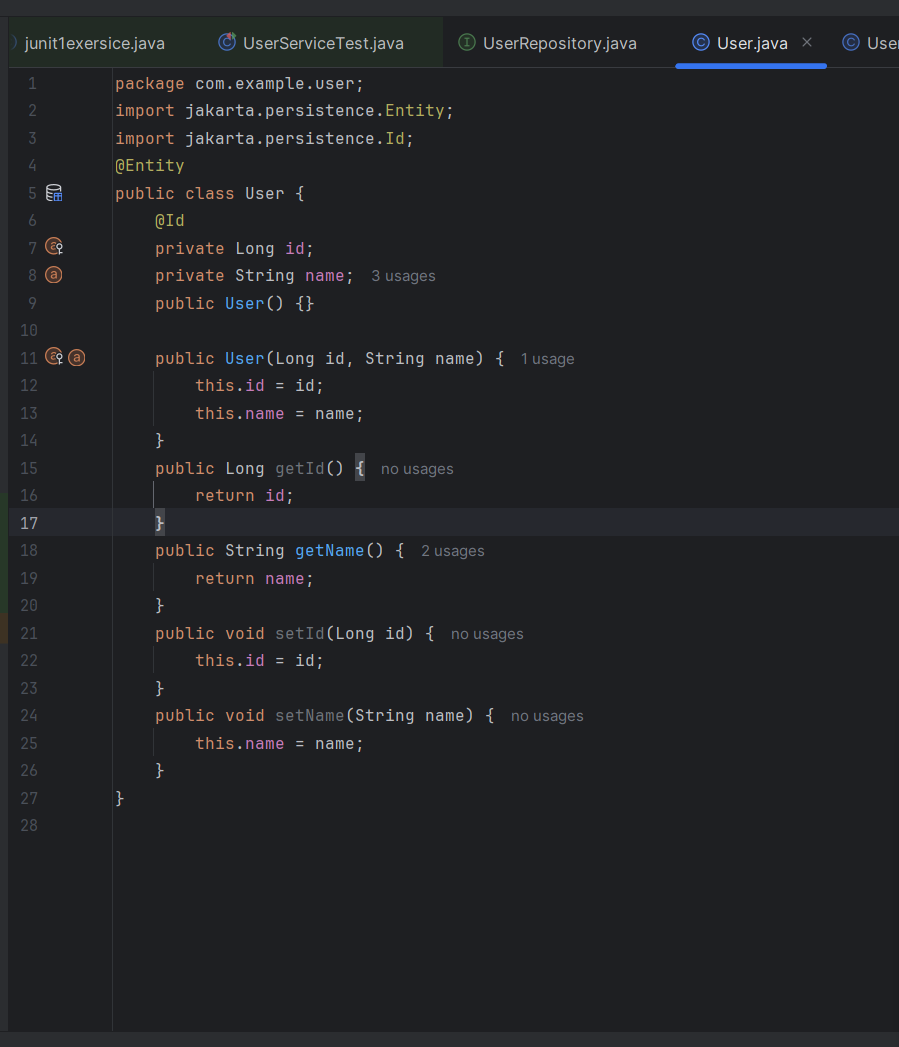
Write code for this**.**

**SOLUTION:**

**UerRepository.java:**

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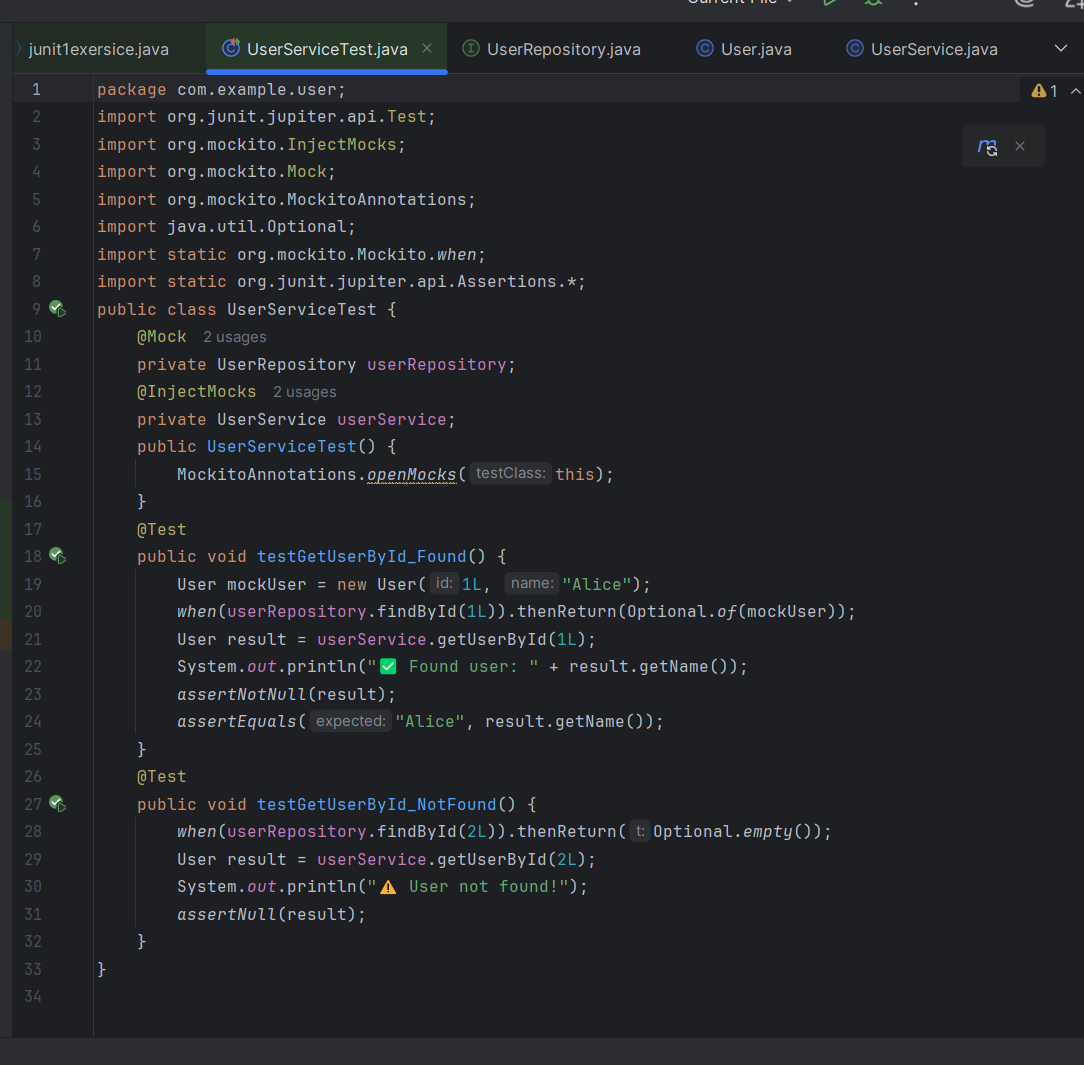
**User.java:**

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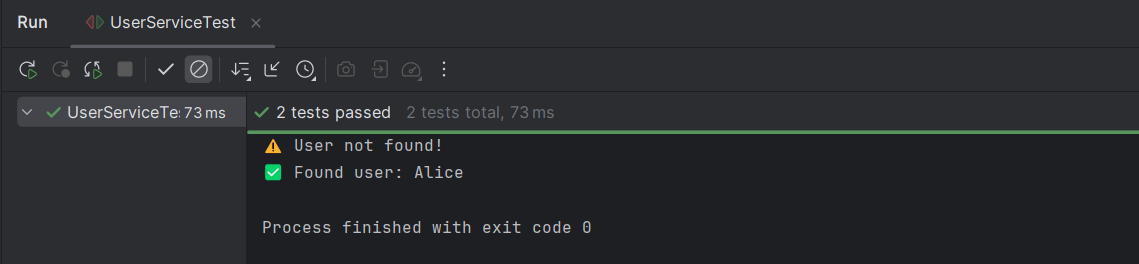
**UserService.java:**

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**UserServiceTest.java:**

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**OUTPUT:**

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