

Exercise 1: Mocking and Stubbing

```
package com.example;
```

```
public interface UserRepository {  
    String findUserNameById(int id);  
}
```

```
package com.example;
```

```
public class UserService {
```

```
    private UserRepository userRepository;
```

```
    public UserService(UserRepository userRepository) {  
        this.userRepository = userRepository;  
    }
```

```
    public String getWelcomeMessage(int userId) {  
        String name = userRepository.findUserNameById(userId);  
        return "Welcome, " + name;  
    }  
}
```

```
package com.example;
```

```
import org.junit.jupiter.api.Test;
```

```
import static org.junit.jupiter.api.Assertions.*;
```

```
import static org.mockito.Mockito.*;
```

```
public class UserServiceTest {

    @Test
    public void testWelcomeMessage() {

        UserRepository mockRepo = mock(UserRepository.class);

        when(mockRepo.findUserNameById(101)).thenReturn("Keerthika");

        UserService service = new UserService(mockRepo);

        String result = service.getWelcomeMessage(101);

        assertEquals("Welcome, Keerthika", result);

        verify(mockRepo).findUserNameById(101);
    }
}
```

OUTPUT:

