

# Turnitin Coding Assessment Report;

## Frontend;

### App.tsx

1. Fix for (x) button.

```
//Code Fix: membership:Membership parameter was missing in closeDetailsModal function;  
  
const closeDetailsModal = (membership: Membership) => {  
  setActiveMembership(undefined);  
}
```

2. Fix for case-insensitive search.

```
//Code fix for search by email: convert email to lowercase  
  
|| membership.user?.email.toLowerCase().includes(search.toLowerCase()))  
.map(membership => (
```

## Backend;

1. Java-edge Service:

- a. Refactored code to fetch all the users in one request.

File Name:

java-edge/src/main/java/integrations/turnitin/com/membersearcher/service/MembershipService.java

```
public CompletableFuture<MembershipList> fetchAllMembershipsWithUsers() {
    return membershipBackendClient.fetchMemberships()
        .thenCompose(members -> membershipBackendClient.fetchUsers()
            .thenApply(userList -> {
                members.getMemberships().forEach(membership -> {
                    membership.setUser(userList.getUsers().stream()
                        .filter(user -> user.getId().equals(membership.getUserId()))
                        .findFirst()
                        .orElse(null));
                });
                return members;
            }));
}
```

b. Fixed broken test.

File Name:

```
java-edge/src/test/java/integrations/turnitin/com/membersearcher/MembershipServiceTest.java
```

```
when(membershipBackendClient.fetchUsers()).thenReturn(CompletableFuture.completedFuture(userList));
```

c. Testing.

```

turnitin-code-test-master-java-edge-1 > task :compileJava
> Task :compileTestResources NO-SOURCE
> Task :testClasses
> Task :test

turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 ApiControllerTest STANDARD_OUT
07:58:58.896 [Test worker] INFO org.springframework.test.context.support.AnnotationConfigContextLoaderUtils -- Could not detect default configuration classes f
or test class integrations.turnitin.com.membersearcher.ApiControllerTest: ApiControllerTest does not declare any static, non-private, non-final, nested classes annotated with @Configuration.
07:58:58.166 [Test worker] INFO org.springframework.boot.test.context.SpringBootTestContextBootstrapper -- Found @SpringBootTestConfiguration integrations.turnitin
com.membersearcher.MembersearcherApplication for test class integrations.turnitin.com.membersearcher.ApiControllerTest

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:: Spring Boot :: (v3.1.1)

2023-07-20T07:58:58.374Z INFO 153 --- [ Test worker] i.t.c.membersearcher.ApiControllerTest : Starting ApiControllerTest using Java 17.0.8 with PID 153 (
started by root in /srv)

2023-07-20T07:58:58.375Z INFO 153 --- [ Test worker] i.t.c.membersearcher.ApiControllerTest : No active profile set, falling back to 1 default profile: "
default"

OpenJDK 64-Bit Server VM warning: Sharing is only supported for boot loader classes because bootstrap classpath has been appended

turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.277Z INFO 153 --- [ Test worker] o.s.b.t.m.w.SpringBootMockServletContext : Initializing Spring TestDispatcherServlet ''
turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.277Z INFO 153 --- [ Test worker] o.s.t.web.servlet.TestDispatcherServlet : Initializing Servlet ''
turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.282Z INFO 153 --- [ Test worker] o.s.t.web.servlet.TestDispatcherServlet : Completed initialization in 1 ms
turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.295Z INFO 153 --- [ Test worker] i.t.c.membersearcher.ApiControllerTest : Started ApiControllerTest in 1.097 seconds (process running
for 1.664s)

turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 ApiControllerTest > TestMembershipsEndpointReturnsMemberships() PASSED
turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 MembersearcherApplicationTests STANDARD_OUT
2023-07-20T07:58:59.412Z INFO 153 --- [ Test worker] i.c.s.AnnotationConfigContextLoadersUtils : Could not detect default configuration classes for test cla
ss integrations.turnitin.com.membersearcher.MembersearcherApplicationTests: MembersearcherApplicationTests does not declare any static, non-private, non-final, nested classes annotated with @Configurati
on.
turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.414Z INFO 153 --- [ Test worker] b.t.c.SpringBootTestContextBootstrapper : Found @SpringBootTestConfiguration integrations.turnitin.com.me
membersearcher.MembersearcherApplication for test class integrations.turnitin.com.membersearcher.MembersearcherApplicationTests
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:: Spring Boot :: (v3.1.1)

2023-07-20T07:58:59.429Z INFO 153 --- [ Test worker] i.t.c.m.MembersearcherApplicationTests : Starting MembersearcherApplicationTests using Java 17.0.8 w
ith PID 153 (started by root in /srv)

2023-07-20T07:58:59.429Z INFO 153 --- [ Test worker] i.t.c.m.MembersearcherApplicationTests : No active profile set, falling back to 1 default profile: "
default"

turnitin-code-test-master-java-edge-1 2023-07-20T07:58:59.712Z INFO 153 --- [ Test worker] i.t.c.m.MembersearcherApplicationTests : Started MembersearcherApplicationTests in 0.293 seconds (pr
ocess running for 2.88s)
turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 MembersearcherApplicationTests > contextLoads() PASSED
turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 MembershipServiceTest > TestFetchAllMemberships() PASSED
turnitin-code-test-master-java-edge-1
turnitin-code-test-master-java-edge-1 BUILD SUCCESSFUL in 11s
turnitin-code-test-master-java-edge-1 4 actionable tasks: 2 executed, 2 up-to-date
turnitin-code-test-master-java-edge-1 exited with code 0
dash-3.2$ █

```