(1) **Network communicaon-issues between Service A and Service** B

a. with Service B being temporarily unreachable

b. the connecon to service B ming-out or being lost

Comments:

Since we are dealing with two different system there could be a chance for Service B to go down or may take longer duration to response Service A.

To address these issues, I have implemented with **Circuit Breaker and Retry** this will monitor the Service B so we would get the expected response from Service B if everything goes well. In case if the service B is down then we will be doing fallback logic which used to do retry or fallback.

**(2) Service A crashing while processing a User Request a. discuss the various possible inconsistencies such**

a crash might introduce to the system, depending on the moment of the crash

Comments:

Service A is dealing with DB that can go down/crash. So, our transaction may be getting hamper.

Also there may be inconsistent data processing between Service A to Service B.

b. describe how you would implement Service A in addressing these inconsistencies in reconciliaon, i.e. on Service A being restarted

Comments:

To address point (a)

1. we can wrap @Transactional in our Service Layer so that it would take care database transaction whether the transaction can commit or rollback based on the situations.
2. We can bring DB audit so that we can identify where did I went wrong.
3. We can use Rate Limiter to avoid heavy request coming to Service A