SME to write the services offered by airtel on the board based on inputs from the learners

Services Offered by Airtel

1. Mobile Services

- Prepaid
- Postpaid
- 4G/5G Data Services
- International Roaming

2. Broadband & Wi-Fi

- Airtel Xstream Fiber (High-speed broadband)
- Wi-Fi calling

3. DTH (Direct-to-Home)

- Airtel Digital TV
- HD/4K channels
- Interactive services

4. OTT & Entertainment

- Airtel Xstream App (Movies, TV Shows, Live TV)
- Bundled subscriptions (Disney+ Hotstar, Amazon Prime, etc. with postpaid/broadband)

5. Payments & Banking

- Airtel Payments Bank
- UPI, Wallet, and Bill Payments

6. Enterprise Services

- Business Internet
- Cloud & Data Center Solutions
- IoT Connectivity
- Managed Services

Similar to the one above, various operations of a bank can get initiated from various devices, roles, internal systems, etc. A XYZ Software Services company develops an application for a Bank that implements all operations of the bank as RESTful Web Services. You name any service offered by the Bank, a service is available that can be consumed by the respective application. This project had been completed and had been recently launched live. After few days of launch, on one fine day at 4PM ... A loan agent was not able to submit a loan application, he might miss his monthly target An insurance agent was not able to process closure of an insurance and hand over the sum assured payment cheque. The customer is waiting for more than one hour to receive this cheque. A customer is waiting in customer service queue for the 25 minutes to report a stolen credit card The primary reason for the above situation is that the RESTful Web Service application recently launched has become very slow in responding. Due to festival season shopping there were huge volume of transactions for getting account balance, since there was a memory leak in the code and there is not memory left, because of which new request coming to the server were either rejected or timed out. To overcome this situation the entire server had to be restarted. After restart, the situation becomes normal after 2 to 3 hours. The support team keeps their fingers crossed not sure when this issue crops us again. Activity SME to discuss with learners and come up with ideas to handle this situation.

SME

In microservices architecture and enterprise-scale systems — especially under high traffic or seasonal peak loads, we can handle such situations, both proactively and reactively.

We can do certains things like -

- Detect & Prevent Memory Leaks Early.
- Integrate and perform real-time monitoring.
- Add a load balancer to evenly distribute traffic.
- Isolate services - don’t let a slow account service block loan or insurance services
- Cache balance info for short duration (e.g., 5 mins) to reduce DB hits to save memory.
- Apply rate limits per user/device/IP to control usage
- Use zero-downtime deployments.