COS301 - Class Discussion 5 (Group 14)

Group members present:

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1. **Security**: The user is able to authenticate themselves by logging in with their email and password. The user is then authorised by linked in to determine if they are on the database and what data the user is able to see based on their privileges (an admin user might have different capabilities compared to a standard user). User credentials are encrypted via hash and salt. Data integrity is when linkedin checks if the user exists in the database.

2. **Usability**:
    - Users should find the system intuitive and easy to Navigate.
    - Users should find the system to be simple to use.
    - System should be responsive.
    - Front-end must have accessibility options and be compatible with screen readers for the visually impaired. This makes sense due to the large userbase expect on LinkedIn.
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3. **Scalability**:
    - The system should accommodate increasing user activity.
    - The system should be able to handle a large number of users simultaneously
    - Suitable data storage mechanisms need to be employed to store large amounts of data.
    - Servers should employ a scaling scheme that will allow them to handle large amount of requests such as horizontal scaling.
    - Under peak loads the system performance should be maintained to ensure high performance
    - Elasticity of the system under different circumstances
    - Efficient handling of transactions within the system as users grow or decrease.

4. **Maintainability.** :

- The system should be modifiable to address future requirements and upgrades.
- The system should employ automation for routine tasks such as testing, deployment, and monitoring streamlines maintenance processes and reduces the risk of human error.

5. **Reliability**: The system should always be available for use.
This can be achieved by:
- Hosting on reliable high-concurrency servers.
- Backup power and network connectivity.
- Frequent data back ups with a rollback and/or failover strategy in place.
- Users expect that their interactions are correctly interpreted and recorded by the system, prevent race conditions and deadlocks. So that data stays consistent.