19CSE314 SOFTWARE ENGINEERING

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Assignment 1

1. **Scalability**- Scaling of applications to deal with increased traffic during peak periods, without performance degradation or downtime.
2. **Low-Latency Requirements**- Ensuring ultra-fast processing in financial systems like trading platforms to avoid financial losses or missed opportunities.
3. **Fraud Detection and Prevention**- Implementing sophisticated algorithms to detect fraudulent transactions in real time without impacting user experience.
4. **Accessibility of Education for specially abled ones**- Ensuring software is inclusive and complies with accessibility standards to support users with disabilities.
5. **Content Delivery at Scale**- Efficiently delivering rich multimedia content (e.g., videos, animations) during remote or hybrid learning environments.
6. **Data Silos**- Fragmented data across departments or systems limits the ability to derive unified insights and hinders decision-making.
7. **Downtime and System Reliability**- Ensuring 24/7 availability of critical financial systems with minimal downtime to avoid customer dissatisfaction and financial losses.

8. **Student Data Privacy**- Protecting sensitive student information and ensuring compliance with regulations like FERPA and GDPR.
9. **Ethical AI Use**- Ensuring fairness, transparency, and accountability in AI-driven decision-making, avoiding biases that can affect trust.
10. **Cost Overruns in Development**- Poor estimations and scope creep lead to budget overruns, often impacting project timelines and delivery quality.