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APDS7311 ICE Task 2

1. Discuss the importance of new registration requirements

New registration requirements are crucial to ensuring the security and integrity of the system and its user accounts. They help protect against malicious activities such as unauthorized access and fraud. The registration requirements can incorporate email or phone number verification, strong passwords and CAPTCHA to prevent bots.

2. Explain the dangers of storing sensitive data in cookies

While convenient, the act of storing sensitive data in cookies poses significant security risks, due to the fact that cookies can be accessed and manipulated by attackers if not well secured. Some of the dangers include:

- Data Leakage: If sensitive data like passwords are stored in plain text in a cookie, it can unfortunately be easily stolen.
- Cookie Hijacking: If a cookie is intercepted, an attacker can use that information such as session ID or sensitive data to impersonate the user and gain access to their account.

3. Defend the importance of credential security

An immense amount of importance should be placed on credential security, because user credentials (usually the username and password) are the primary means of authenticating a user's identity and granting them access to the system. If these credentials are compromised, attackers can impersonate users, access sensitive data, and cause significant damage.

4. Explain the role of multi-factor authentication

Multi-factor authentication is used to enhance the security of user accounts by requiring the user to verify their identity through more than one method. This in turn adds an additional layer of protection beyond simply using a password. Multi-factor authentication involves making use of two or more factors involving something you know (like the password) and something you own (like a mobile device with authentication app),