

DATABASE SECURITY CHECKLIST

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It is a checklist for database security, which includes various aspects to consider when securing a database:

Authentication:

- ☐ Implement strong authentication mechanisms.
- ☐ Enforce password policies (complexity, expiration, etc.).
- ☐ Use multi-factor authentication (MFA) for additional security.

Authorization and Access Control:

- ☐ Define and enforce access control policies.
- ☐ Assign roles and permissions based on the principle of least privilege.
- ☐ Regularly review and update user access levels.

Encryption:

- ☐ Encrypt data at rest using database-level encryption.
- ☐ Encrypt data in transit using SSL/TLS.
- ☐ Manage and protect encryption keys securely.

Audit Logging:

- ☐ Enable and configure detailed audit logging.
- ☐ Regularly review audit logs for suspicious activities.
- ☐ Ensure logs are stored securely and retained for compliance.

Backup and Recovery:

- ☐ Establish regular backup schedules.
- ☐ Store backups securely, and test restoration processes.
- ☐ Implement a disaster recovery plan.

Database Activity Monitoring:

- ☐ Implement real-time monitoring of database activities.
- ☐ Set up alerts for unusual or suspicious behavior.
- ☐ Respond promptly to alerts and investigate incidents.

Data Masking and Redaction:

- ☐ Apply data masking or redaction for sensitive information.
- ☐ Ensure that only authorized users can access the complete dataset.

Vulnerability Management:

- ☐ Regularly scan for vulnerabilities in the database.
- ☐ Develop and implement a patch management process.
- ☐ Address and remediate identified vulnerabilities promptly.

Database Encryption Key Management:

- ☐ Establish a secure key management system.
- ☐ Periodically rotate encryption keys.
- ☐ Monitor and audit key access and usage.

Database Patch Management:

- ☐ Regularly update and patch the database management system.
- ☐ Follow a testing process before applying patches in a production environment.

User Training and Awareness:

- ☐ Provide security training to database administrators and users.
- ☐ Promote awareness of security best practices and potential risks.
- ☐ Conduct periodic security training sessions.

Compliance Requirements:

- ☐ Ensure compliance with relevant industry regulations (e.g., GDPR, HIPAA, PCI DSS).
- ☐ Periodically review and update security measures to meet evolving compliance standards.

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