



**Northeastern
University**

M365 TEAMS BACKUP PLATFORM

P2. Database Design, Conceptual Model

DAMG6210 - Database Management & Database Design

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GROUP – 7

TEAM MEMBERS

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The Business Problem:

The platform addresses the following business problems:

- **Data loss:** Accidental deletion, malicious attacks, or system failures can lead to irretrievable data loss, impacting productivity and compliance.
- **Limited data recovery options:** Traditional backup solutions might not effectively capture all Teams data, making recovery challenging.
- **Compliance challenges:** Difficulty in meeting data retention and accessibility requirements mandated by regulations.
- **Lack of centralized data management:** Scattered data across Teams channels and individual user accounts hinders efficient management and control.
- **Security vulnerabilities:** Unprotected data is susceptible to unauthorized access and misuse.

List of Various Entities:

1. **Subscription Plan:** Defines the different tiers of service offered, including features and storage limits.
2. **Organization:** Represents a company or group using our platform to manage their backup data.
3. **Backup Settings:** Configures how data is backed up, including frequency, retention policies, and encryption.
4. **Teams:** Groups within an organization that share backup resources and settings.
5. **Team Settings:** M365 side setting associated with teams.
6. **Sites:** Represent SharePoint site associated with each team.
7. **Apps:** Represent Apps associated with each team.
8. **Users:** Individuals within organizations who have access to the teams and its features.
9. **Channels:** Represent all the Channel associated with each team.
10. **Files:** Represent files (it can be of any type: image/doc/video) sent by any user in channel
11. **Message:** Text sent by user in channel
12. **Reaction:** User feedback on messages, expressing agreement, disagreement, or other sentiments.

Business Rules:

- **Data privacy:** Users should only access data they are authorized to see, adhering to privacy regulations and organizational policies.
- **Data integrity:** Backups should accurately reflect the original data without modification or corruption.
- **Data retention:** Data should be retained for specified periods based on legal and organizational requirements.
- **Security:** Data should be protected with robust encryption and access controls to prevent unauthorized access.
- **Scalability:** The platform should adapt to growing data volumes and user numbers without performance degradation.

Conceptual Diagram

