# myTeams Database System

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Checkpoint #	Date Submitted
Checkpoint 1	02/21/2023
Checkpoint 2	02/28/2023

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## 1 Project Description

### 1.1 Project Overview

The goal of this relational database system is to solve issues in present day HR software as a service products. With this database system companies will be able to effectively manage current/future employees, departments, invoices, and track productivity metrics inhouse. Companies will be able to store important employee data, department information such as budgets, expenses, and track project metrics that are present in our competition's products. However, some key features this database shall implement are to allow hiring managers to store notes alongside the information of a potential hire. With this key feature, less time will be lost looking for previous notes. Another feature that this product shall implement is to allow employees to see how their currently stored degrees, experience, and credentials match against vacant position requirements in order to improve the chances of promoting within. This database system also supports project management features such as managing priorities, assigning teams, and extending due dates. This database would be useful for companies both large and small that are looking to effectively manage employee data, payroll, invoices, clients, and projects.

#### 1.2 Use Cases

Use Case Title:	Previous interviewee
Actors:	Applicant (Justin), Hiring Manager (Philip)
Description:	This use case begins when Justin is interviewed for a
	position with Philip's company. Philip takes notes during his
	interview with Justin. Justin does not end up getting the
	position due to a more fitting candidate accepting the role.
	However, Justin applies for another position at Philip's
	company and Philip was able to retrieve the notes previously
	saved.

Use Case Title:	Different interviewer
Actors:	Applicant (Wallace), Hiring Manager (Philip), Team Manager
	(Annie)
Description:	This use case begins with Wallace being interviewed by
	Philip. Wallace knocks the interview out of the park and is
	pushed to the next round of interviews, which is with the
	Team's Lead, Annie. Curiously, Annie checks to see if any
	notes were saved from the hiring manager. This initiates the
	private notes case. If the notes are marked as private, then
	they shall not be able to be read by another person.
	Otherwise, the notes may be shared with specified
	individuals.

Use Case Title:	Access
Actors:	Team Manager (Annie)
Description:	This use case begins with the Team Manager Annie
	interviewing a second-round applicant for a position. Annie
	goes into the notes section and sees that there are previous
	notes added for the applicant. This initiates the authentication
	user case. If Annie is on the list of individuals with access,
	she will be able to read the notes previously entered. If she is
	not on the list. She will not be able to access the data.

Use Case Title:	Promoting within
Actors:	Ambitious employee (Maya)
Description:	This use case begins with Maya looking to move up in the
	company by looking at current vacant positions after earning
	a certificate. Maya updates her information and then can see
	additional roles as well as current roles that are more aligned
	with her current skillset. Maya can also opt in to sharing her

desire to move up within the company so that her current
resume can be shared automatically with managers in other
departments looking to fill a position.

Use Case Title:	Split Decision
Actors:	Doubly Qualified Employee (Maya)
Description:	This use case begins with Maya opting in to sharing her
	desire to move up within the company. The company A has
	several new positions available and 5 teams in different
	departments. To improve this situation, candidates that
	currently work at the company can list up to 3 departments
	that they are interested in.

## 2 Database Requirements

#### 2.1 Functional Requirements

#### Company

- 1. A company shall have at least one location.
- 2. A company location shall have many employees.
- 3. A company location shall have many departments.
- 4. A company shall have at many clients.
- 5. A company shall have many locations.
- 6. A company location shall have one payroll.
- 7. A location shall belong to one company.
- 8. A company shall be able to hire for many job positions.

#### Manager

- 1. A manager shall have at least one employee.
- 2. A manager shall be able to manage many projects.
- 3. A manager shall be able to leave many notes for a candidate.
- 4. Managers shall be able to access many candidate notes.

#### **Employee**

- 1. An employee shall belong to only one location.
- 2. An employee shall be able to belong in only one department.
- 3. An employee shall be able to express interest in many positions.
- 4. An employee shall have only one job title.
- 5. An employee shall be assigned to work on many projects.
- 6. An employee shall have many skills.
- 7. An employee shall have many certifications.
- 8. An employee shall have one manager.
- 9. An employee shall be able to work on many projects.
- 10. An employee shall have one payroll.
- 11. An employee shall have only one salary.
- 12. An employee shall have one name.
- 13. An employee shall have one company email.
- 14. An employee shall have one hire date.
- 15. A position may be assigned to many employees.

#### **Department**

- 1. A department shall be able to have many employees.
- 2. A department shall have many positions.
- 3. A department shall be able to have many projects.
- 4. A project shall be managed by many managers.
- 5. A project shall have one project name.
- 6. A department shall belong to many company locations.
- 7. A project shall belong to one department.
- 8. A project shall have only one priority.
- 9. A priority shall have many projects.
- 10. A job title shall belong to many employees.
- 11. A department shall have only one budget.

- 12. A department shall be able to submit many invoices.
- 13. A department shall be assigned many clients.
- 14. A client may be assigned to many departments.
- 15. A client shall be able to track many projects.

#### **Budget**

- 1. A budget shall belong to many departments.
- 2. A budget shall have many invoices.
- 3. A client shall be assigned to pay many invoices.
- 4. An invoice shall be assigned to at least one client.

#### Payroll

- 1. A payroll shall have many employees.
- 2. A payroll shall belong to many company locations.
- 3. An employee shall have many paystubs.
- 4. An employee shall have many W-2s.

#### Hiring

- 1. A candidate shall be able to apply to at least one position.
- 2. A candidate shall be interviewed by many managers.
- 3. A position shall have only one company location.
- 4. A candidate shall be able to be hired for one position.
- 5. A position shall be able to have many candidates.
- 6. A candidate shall be able to upload least one candidate document.
- 7. A candidate shall have multiple notes.
- 8. A candidate shall be able to upload many documents.
- 9. A job shall have one job description.
- 10. A job description shall have many job skill requirements.

#### 2.2 Nonfunctional Requirements

#### **Security**

- 1. The database shall be automatically backed up every day.
- All the values inserted into the database shall be consistent with the attribute's datatype and domain.