Database Design Document

This document contains the design for the database storing information that is needed for the website. There are 2 major types of information that is stored: employee information and company information. User information includes all of the attributes related to each employee such as name, contact information, and medical history. Company information includes contact information for the company, name, and company structure. The following will describe the tables and how they relate to each other to hold all data that is required.

Employee Data

These tables hold all information that is relevant to a user. For purposes a user can be either a manager or an employee.

User Table

The user table contains the basic information for each user that would be needed when they sign up for the website.

Column Name	Data Type	Description
userId	int	Primary key of this table. Each user has a unique userId to join on other tables
email	nvarchar(100)	Email of the user
nameFirst	nvarchar(50)	First name of the user
nameLast	nvarchar(50)	Last name of the user
phoneNumber	int	Phone number of the user
companyId	int	Foreign key companyId of the company that this user works for

Feature Table

Feature table keeps track of all features of a profile currently being tracked by PrevWorks.

Column Name	Data Type	Description
featureId	int	Primary key of this table

name	nvarchar(100)	Name of the feature

Feature2User Table

Feature2User table connects a user to each of their features. Features could be a sparse matrix so this will avoid the need to store nulls, this also allows for the database to be easily extended as new columns do not need to be added when a new set of data is collected. Only a new connection table and row is added.

Column Name	Data Type	Description
userId	int	Foreign key to user table
featureId	int	Foreign key to features table
value	nvarchar(100)	Value of the feature

Injury Table

Holds all information related to an injury event for each user.

Column Name	Data Type	Description
injuryId	int	Primary key of this table
userId	int	Foreign key to user table
date	datetime2	Date and time that the injury occured
anatomyId	int	Foreign key connecting to the anatomy table
pain	int	Rating from 1-10 of pain in that area.
description	nvarchar(1600)	Description of the injury.

Company Data

Company table holds all information directly related to the company as well as its management structure.

Company Table

Holds information about the company.

Column Name	Data Type	Description
companyid	int	Primary key of the company Table
companyName	nvarchar(200)	Name of the company
phoneNumber	int	Phone number of the company
streetAddress	nvarchar(200)	streetAddress for the company
city	nvarchar(100)	City of address
state	nvarchar(50)	State of address
zip	int	Zip code of address

Group Table

A group refers to a group of employees. Every group has one or more managers. Each group has one or more parent groups.

Column Name	Data Type	Description
groupId	int	Primary key of the Group Table
groupName	nvarchar(200)	Name of the group

Manager Table

Holds the relations between managers and groups.

Column Name	Data Type	Description
userId	int	Foreign key to User table for the manager of this group.
groupId	int	Foreign key to the group table

Employee Table

Holds the relation between employees and groups.

Column Name	Data Type	Description
userId	int	Foreign key to User table for the employee of this group.
groupId	int	Foreign key to the group table

Group2Subgroup Table

Relation between groups and their subgroups. This must be in the form of a Directed Acyclic Graph (DAG).

Column Name	Data Type	Description
groupId	int	Foreign key to the group table, for the parent group
subgroupId	int	Foreign key to the group table, for the subgroup