Employee Skill Tracker

Senior Project

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1. Introduction

1.1 Purpose

The purpose of this document is to describe the Employee Skill Tracker in detail. This document will cover the features, user interfaces, functional requirements, non-function requirements, and the overall purpose of the skill tracker. The project is being developed for Liaison Technologies, so that they may more effectively and easily track their employee's skills while letting said employees see how they have been rated, and how they stand up to the average employee on the team. Both the developers and clients should be able to read this document and get a decent idea of what this project entails. Once complete, it will be proposed to Liaison Technologies for their approval.

1.2 Scope of Project

This project will be for the employees at Liaison Technologies. This system will contain a database of skills that are associated with the employees. It will be designed to provide a way for management to track employees experience with certain skills. The skill sets associated with the employees will give management a way to assess a team member based on their experience level with certain programming languages and such. It will also allow the employee to complete "tasks" that will give him the ability to raise a certain skill set according to the specific challenge of that task. There will also be some other functions added to the system such as awards, quests, and leaderboards, so that the employee can see benefit after completing tasks or projects.

1.3 Features

1. Employee Skills Spreadsheet - This is only viewable by admins, and allows them to see all of the skills of their employees within their department
2. Skills Database - database that tracks the skills of employees which is used for evaluation purposes and to learn what types of training needs to provided.

3. Employee Profiles - A profile based system that employees can look up other employees.

1.4 Resources

   Node.js is an open source server-side development platform that is written in javascript.

   MongoDB is an open source NoSQL database software. Users skills and profile information will be kept inside a mongo database.

   Cloud 9 is an online integrated development environment that allows multiple users to edit the project at a single time. Cloud 9 also acts as a repository, since this project is stored on their servers.

   EditableGrid is an open source spreadsheet that will be used to represent the employees skills to the admins.

2. Overview

2.1 Accounts

2.1.1 User

The user account of the system would be associated with a normal employee that isn't in a management position. This account would have access to the basic functions of
the system such as tasks, projects, and skill tracking of the users account. It would not allow the user to be able to track the skills of any other user.

2.1.2 Admin

The admin account of the system would be associated with employees that are in a management position. This account would have access to every basic users account so that it could track, monitor, and assess each employee.

2.2 Profile

The profile will consist of non-sensitive information i.e. information that employees should be fine with sharing. A picture of the user, the total number of tasks that the employee has completed, which department/team the employee is on, a short about section that the employee can edit. Certain sections of the profile will be editable by the employee, whereas other parts,
such as the number of tasks complete, will not be editable by the user. Other employees should be able to click on their co-workers profiles and see the basic information about them. The management rating of the employee's skills will not be in the profile section.

2.3 Teams

Employees will also be broken up into teams. As of right now, there will be three teams; Support, Mapping, and Integration. Each team will have its respective employees. This encourages friendly competition between teams, which creates a better working environment. Each team will have a team profile, which the leader of the team can edit. Any member of any team will be able to view other team profiles. Within each team, the members will have different ranks, based on seniority or position within Liaison. Admins can also promote members to higher ranks inside the teams.

3. Requirements

3.1 Functional Requirements

3.1.1 Add Employee

The admin enters a new employee to the database.

1. The admin selects Add employee.
2. The system presents a form.
3. The admin fills in that form and hit "submit".
4. The system verifies the information and returns admin to the main page.

3.1.2 Delete Employee

The admin deletes a current employee from the database

1. The admin selects Delete employee.
2. The system provides a list of employees.
3. The admin selects the appropriate employee from the list and hits "submit".
4. The system removes the employee from the database and return the admin to the main page.

3.1.3 Edit Employee

The admin edits skill of a current employee

1. The admin selects Edit employee.
2. The system provides a list of employees.
3. The admin selects the appropriate employee from the list.
4. The system provide the admin with access to the employees information.
5. The admin edits the information then selects "submit".
6. The system returns admin to the main page.

3.1.4 Add Skill

The admin adds skill to the database

1. The admin selects Add skill.
2. The system provides a list of skills associated with user accounts.
3. The admin then adds a skill to the list and hits "submit".
4. The system returns admin to the main page.

3.1.5 Delete Skill

The admin deletes skill from the database

1. The admin selects delete skill.
2. The system provides a list of skills associated with user accounts.
3. The admin then selects and deletes the appropriate skills.
4. The system return admin to the main page.

3.1.5 View Employee Information

The admin views information of a selected employee

1. The admin selects view information.

2. The system provides a list of current employees.

3. The admin selects appropriate employee from list.

4. The system provides admin with employees information.

5. The admin clicks "done" and the system returns admin to main screen.

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3.2 Non Functional Requirements

3.2.1 Gamification

This feature deals with the gamification of the skill tracker. Currently, the developers have some free-reign on what the actual gamification will consist of. However,
the gamification should encourage use of the skill tracker, and motivate employees to increase their skills.

3.2.1.1 Leaderboards

Leaderboards add a competitive aspect to the work area and will provide a fun way for employees to work harder. Leaderboards will be based off monthly progression between teams and individual members. These leaderboards can be based off tickets created or resolved, as well as projects completed. An XP system can be used with Admins adding bonus XP for tremendous accomplishments.

3.2.1.2 Achievements

Achievement systems are common systems used in games of all sorts. They allow the user to feel awarded by accomplishing some feat or reaching a milestone. Users will be able to receive badges and possible rewards for completing achievements. They will also be able to view their progress on an Achievement. Some examples of an Achievement would be reaching 100 tickets completed or work at Liaison for 1 year.

3.2.2 Single Sign-on

Allows users to login to the skill tracker with credentials that they should already have.

1. The user is presented with a sign-on page (If the user is already logged in, the sign-on page is skipped)
2. The system takes the user to their profile after a successful login.
3. The system takes admins to their profile, but gives them administrator rights.

3.2.3 Give Admin

Lets Admins give administrative privileges to other users.

1. The admin goes to the desired users profile.
2. The admin chooses to add the user to the admin data set.
3. The admin is prompted again, to make sure that they want to add a new user to the admin data set.
4. The desired user is transferred to the admin dataset.

3.2.4 Remove Admin
Let Admins remove administrative status from other admins.

1. The admin goes to the desired admins profile.
2. The admin chooses to remove admin status from the admin.
3. The admin is prompted again, to make sure that they want to move the admin back into the user data set.
4. The desired admin is transferred to the user dataset.