Software Requirements Specification

OWEN Lite

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Version: 0.1

Date: 4 May 2017

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# Introduction

## Purpose

The purpose of this document is to provide the software requirement specification report for OWENLite.

## Document Conventions

|  |  |
| --- | --- |
| A | Admin |
| HR | HR Manager |
| E | Employee |
| DB | Database |
| ER | Entity Relationship |
| SaaS | Software as a Service |
|  |  |

## Intended Audience and Reading Suggestions

This SaaS is for the HR of any given company to analyse informal employee networks. This helps to identify and understand the employee experience including but not limited to employee engagement, performance and attrition.

## Project Scope

This is the MVP. This web-based SaaS is supposed to help assist organizations in evaluating their internal networks, by conducting surveys as well as understand the organization’s sentiment. Users must sign up for this web-based SaaS on www.owenanalytics.com/signup. They will need to make a payment, after which their services begin.

OWEN Lite involves 3 users, Admin, HR and Employee.

The Employee undertakes surveys. The HR monitors the dashboard for network metrics and sentiment metrics, as well as undertake surveys themselves. The Admin can update the employee master, add/remove questions, change frequency of the survey, set select employees as HR, as well as undertake the surveys.

### In Scope

The following areas are in scope for this project:

* Signup process on owenanalytics.com website
* Automatic role allocation, based on employee master upload
* User login
* Survey mechanism
* HR Dashboard
* Admin page
* SSL Certificate

### Out of Scope

The following areas are out of scope for this project:

* Chatbots
* Voice to text (sentiment analysis)
* Payment mechanism
* Multi language
* Native App (iOS/Android/Windows)
* Only one device login limit per user

# Overall Description

## Product Perspective

A SaaS that lets a company to sign up, conduct pulse surveys. The results to the survey can be monitored through dashboards. Surveys can be updated/refreshed.

## Product Features

TODO : ER Diagram (RT)

## User Class and Characteristics

There are three types of users namely the Admin, HR and Employee. The first time a user sign ups that entity is declared as an admin by the system.

### Admin

* Upload the employee master
* Add/remove survey questions
* Change frequency/validity of questions

### HR

* Monitor dashboard based on key metrics
* Take the survey

### Employee

* Take the survey

## Operating Environment

* Database : MySQL
* Client/Server System
* Platform : Java/JSP/JavaScript

## Assumption Dependencies

* The user that signs up and pays will be the admin of the SaaS for their company
* Admin will provide the employee master in the template given
* Admin will have the understand of different types of questions for network analysis
* Login credentials of employees will be generated from the email ID of the employee
* Employees that are required to take the survey should have access to smart devices along with latest browsers

# System Features

* STIMULUS/RESPONSE SEQUENCES
  + Admin signs up for the SaaS
  + Admin uploads the employee master in the given template
  + The uploaded employee master assigns the employees in either the HR or Employee role
  + Admin updates the questions for the survey
  + Employee takes the survey
  + HR views the dashboard based on the responses
* FUNCTIONAL REQUIREMENTS
  + CLIENT/SERVER SYSTEM

A client/server system is a distributed system in which,

1. all data resides at the server site.
2. the application executes at the client site

The term client/server refers primarily to an architecture, or logical division of responsibilities, the client is the application (also known as the front-end), and the server is the DBMS (also known as the back-end).

# External Interface Requirements

## User Interfaces

Front-end software: JSP/JavaScript/HTML5/CSS3

Back-end software: Java/MySQL

## Hardware Interfaces

* OS : Windows / Mac / Android
* Browser Support : IE9 / IE10 / IE11 / Chrome / Opera / Firefox / Safari / Chrome(Android) / Mobile Safari (for builds that are 2016 and above)

## Software Interfaces

|  |  |
| --- | --- |
| Software Used | Description |
| Operating  system | Windows Vista |
| Database | MySQL |
| Front-end/UI | JSP/JavaScript/HTML/CSS |

## Communication Interfaces

This project supports all types of web browsers.

# Other Non-functional Requirements

## Performance Requirements

### E-R Diagram

TODO : RT

### Normalization

The basic objective of normalization is to be reduce redundancy which means that information is to be stored only once. Storing information several times leads to wastage of storage space and increase in the total size of the data stored.

If a Database is not properly designed it can gives rise to modification anomalies. Modification anomalies arise when data is added to, changed or deleted from a database table. Similarly, in traditional databases as well as improperly designed relational databases, data redundancy can be a problem. These can be eliminated by normalizing a database.

Normalization is the process of breaking down a table into smaller tables. So that each table deals with a single theme. There are three different kinds of modifications of anomalies and formulated the first, second and third normal forms (3NF) is considered sufficient for most practical purposes. It should be considered only after a thorough analysis and complete understanding of its implications.

## Safety Requirements

AWS backups will be taken weekly, to ensure that employee responses/dashboard/survey data is not lost in case of a technical failure.

## Security Requirements

SSL Certificates provide secure, encrypted communications between a website and an internet browser. SSL stands for Secure Sockets Layer, the protocol which provides the encryption. SSL Certificates are typically installed on pages that require end-users to submit sensitive information over the internet like credit card details or passwords. Example pages include payment pages, online forms (surveys) and login pages.

## Software Quality Attributes

* Availability: There should be questions available for an employee to undertake a survey
* Correctness: The employees should provide genuine answers to the survey
* Maintainability: The admin should update the questions frequently so the HR can see greater employee responses
* Usability: The dashboard should be informative enough for the HR to draw up actionable insights.