# 1. Introduction

**1.1 Purpose of this Document:**

The purpose of this SRS document is to outline requirements for Eastern Washington University’s Career Services Department Survey System (CSDSS). The system will be web-based, built using the JavaScript, a mySQL database, and responsive webforms. It will be operating system independent and accessible with any standard compliant browser.

**1.2 Scope of the Development Project:**

The Career Services Department Survey System (CSDSS) will be a web platform managing the surveying of various departments at Eastern Washington University to assess awareness and investment in the Career Services program.

**1.3 Definitions, Acronyms, and Abbreviations:**

CSDSS – Career Services Department Survey System

EWU – Eastern Washington University

mySQL – The database that will be used for this project

CSS – Cascading Style Sheets, a language to define appearance and animation of web elements

Bootstrap – A robust CSS library

**1.4 References:**

<https://getbootstrap.com/>

<https://www.mysql.com/>

[https://www.ewu.edu](https://www.ewu.edu/)

<https://www.javascript.com/>

**1.5 Overview of Document:**

This document contains all of the software requirement specifications. It contains an Overall Description of the product, the purpose and goal of the product, how it is going to work, and what technologies are to be used to make it work. We will also outline and describe specific components of the project.

# 2. Overall Description

Nothing here yet… :(

## 3. Product Perspective

This system will consist of a two main webpages. The first will be the webpage for survey takers, the second will be the admin webpage. The survey takers page will be used to take surveys as well as display information about available surveys to be taken. The admin’s page will be used for retrieving data from taken surveys and managing the questions asked for the surveys.

Data from the results of the surveys will be stored in a database while the questions for the surveys will be stored in another. There will be different levels of access to the individual databases. Admins will be able to add and modify data in the questions database while survey takers will only use the database to retrieve the questions to be displayed. Records from the results database may be retrieved by the admin but cannot be modified while the survey takers will be able to add records and modify them through taking surveys.

## 4. Product Functions

The web page will give users surveys with questions that will come from a database. The results will be based on criteria set by the Admin and the user’s responses to the questions. Once the surveys have been completed, the users will be presented with links containing information on the Career Center based on the relationship level determined by the survey.

All the results will be added to a database which will order the results by the user’s department. From there, the results will be averaged with users of the same department to get an idea of what the department’s relationship.

There will also be a special admin panel which provides access to the results, as well as options to convert them into any format the admin chooses such as an Excel spreadsheet, a chart or a text document with the information listed. From there, the recovery e-mail for the admin can be changed to account for possible changes in staff.

## 5. User characteristics

There will be two types of users that use this system: staff and department heads, and the admin of the system in the Career Center. Each type has different levels of access due to their different uses of the system.

The staff and department heads may interact with the web page to take the various surveys that have been set up. This means that the users in this group must be able to see the questions presented, as well as choose the potential survey they wish to take from some sort of menu system.

The admin will also interact with the web page, but will be given more access to the information within. With this access, the admin will be able to view information on the surveys taken based on results from each department to find out each department’s relationship with the Career Center. The admin will also be able to create a print screen to print off the information. This will the admin to present the results to EWU University officials to show the relationship of each department with the Career Center. The administrator will also have access to the database containing the questions for each survey and will have the ability to update the questions to fit changes in requirements for each relationship level as well as create new surveys.

## 6. Constraints

The user’s Internet connection is one of the possible constraints for this project. Since the system is hosted as a webpage, and the system has to process data from the databases over the Internet, the connection must be there and be fully functioning in order for the system to properly function.

Another constraint will be the sizes of the databases of the system. Since the databases is shared amongst all users, even if the level of access is the same, they might have to queue incoming requests. This could be for example, preventing read access to the results database while data is being written to it by users taking the survey. This will increase the time to fetch and process data, but it should be by a negligible amount.

The final constraint is that the user must be in some way connected to EWU servers either by signing in to campus wifi, using a wired connection on campus, or by using a VPN to connect to campus networks while off-campus. This does limit the portability of the application, but will provide better security from possible outside attacks.

## 7. Assumptions

One assumption made is that if a user uses a mobile web browser the system will function exactly the same. There will be additional design work needed in order to ensure that the web page will be readable on any screen size, but this should be the case.

Another assumption is that the user is already connected to the EWU network somehow, or has the capability to do so. If the user is not, then the webpages cannot be accessed due to security concerns.

This will be a stand-alone web application. The only planned integration between this and other systems will be through hyperlinks to resources pertinent to the results of the survey. Other forms of integration may be applied (as required or restricted by Eastern Washington University), such as matching color and design schemes of other web pages related to EWU.

It will be run on a web hosting service to be determined either by EWU standards, or by agreement between EWU Career Services and the Group6 development team.

The final product (software) will be delivered to, and remain in the possession of, Nate Bryant at EWU Career Services. Any further distribution of the software will be at his discretion.

All information gathered by the software will be stored in a database on the same host as stated above, and accessibility to it will be determined by EWU Career Services.

Hardware requirements are minimal. Internet access is required for users and administrators. For the administrator, the ability to collect and/or disseminate information will require text and/or spreadsheet editing software.

Space requirements are dependent on the size of the finished software product plus the size of the database created. The size of the table containing questions is determined by the administrator of the survey. The size of the table containing answers will be relative to that, multiplied by the number of people who take the survey. In total, while it is impossible to determine the actual size required of all processes, it should be insignificant in light of the planned functionality and intended use of the product in relation to the storage capabilities of modern computers and web-hosting services.

Communication between users and administrators of this software will be, initially, in the form of an invitation sent by the administrator to a department chair, faculty member, or other person with whom Career Services collaborates. Invitations will be compartmentalized: Each invitation sent will include a department-specific PIN number that can be further distributed among faculty, who may then access and complete the survey on behalf of the department they work in. The pin number will expire one week from the time it is created. The interaction between the survey-taker and the system will consist of multiple questions in the form of true/false, multiple choice, and rating scales. There will also be at least one text box for the user to provide feedback explaining answers and/or to offer suggestions or questions. This will not be a required field. Results from this field will be separate from the rest of the survey, so that anonymity is preserved, and so that the administrator can receive and view them without the possibility of survey results being unintentionally skewed by their content. No personal information will be collected from survey recipients, keeping the results completely anonymous, except in terms of department. Information collected will be fully accessible to the administrator in any form they choose, and may also be removed or deleted at their discretion.

1. **Product functions:** It provides a summary of the functions to be performed by the software. The functions are organized in a list so that they are easily understandable by the user:
   1. Invitation page/function: Survey administrator enters departments and then email addresses by department. When submitted, software generates a PIN number for each department entered, and sends an invitation with the appropriate PIN to each email recipient entered.

All pages will be responsive, and so, will be functional on any size device.

* 1. Recipients receive an email titled (something like) “You have been invited to participate in a Career Services survey”, with an explanation of the survey, the PIN number for their department, and link (or “Accept Invitation” button) to the Survey web page.
  2. When the user clicks on the invitation link, they are taken to a “landing page” for the user (survey-taker), with an extended welcome message describing the goals of the survey, a description of the survey itself (explanation of anonymity, time required, types of questions included), and a “start” button.
  3. When the start button is clicked, the user is asked a series of questions designed to assess their knowledge and opinions about Career Services programs and offerings, and their willingness to collaborate on future projects. These are in the form of multiple choice, true/false, and rating/ranking type questions. There will also be a question to determine whether the person taking the survey is someone whose responsibilities include engaging with Career Services. This may be used to weight specific results within a department. If the survey is not completed, the results are not saved. The same survey may be re-taken by the same person for as long as the PIN is active.

There will also be a comment box provided, which will not be a required field for the user. This may be used to provide explanations, ask questions, or submit commentary.

* 1. When the survey is complete and submitted by the user, they are redirected to another page with content determined according to the results of the survey. If the user’s ranking is in the higher levels (above the bottom level), they are provided with the level they have achieved, how they compare to other departments (as an incentive to engage further), encouraged to take steps to progress further on the continuum, and provided with links to Career Services offerings that they may not know about (or that address questions that they didn’t answer in the affirmative/correctly). These links and resources will be provided and updated by Career Services.

If the user’s ranking is at the bottom level, they will be directed to more basic Career Services offerings, and encouraged to get more involved. This page may also include success stories from other departments, in order to encourage further development. The user will not be told that they were ranked at the bottom-most level.  
If the survey results for a department are removed or deleted for reassessment (possibly in the case of changing positions among faculty), or if the response rate from a department is very low, the relationship level for a department may be reduced when new surveys are submitted.

* 1. The results of the survey will be stored in a database. Size permitting, this database (detailed further in the Product Perspective section of this document) can be stored indefinitely. Any entries in the text box will be stored separately and/or emailed to the administrator of the survey for review.
  2. Another web page, accessible to only the survey administrator, will provide functionality to:

-Retrieve survey results by individual, by department, by groups of departments, or by attributes (relationship level or individual question) in a way that can be saved or printed. Probably an Excel spreadsheet.

-Aggregate results: Mean, median, and mode for survey scores by user, department, or attribute (other functionality may be added later, time permitting, as agreed to between Career Services and Group6).

- Change questions in the survey

- Change information and links to Career Services resources provided to users after the survey is completed

- Change the weight of each question, and whether a given question is used to determine the relationship level of a department.

- Change survey administrator and/or password

1. **User characteristics:** It determines general characteristics of the users.
2. **Constraints:** It provides the genera1 description of the constraints such as regulatory policies, audit functions, reliability requirements, and so on.
3. **Assumption and dependency:** It provides a list of assumptions and factors that affect the requirements as stated in this document.
4. **Apportioning of requirements:** It determines the requirements that can be delayed until release of future versions of the system.
5. **Specific requirements:** These determine all requirements in detail so that the designers can design the system in accordance with them. The requirements include description of every input and output of the system and functions performed in response to the input provided. It comprises the following subsections.
6. **External interface:** It determines the interface of the software with other systems, which can include interface with operating system and so on. External interface also specifies the interaction of the software with users, hardware, or other software. The characteristics of each user interface of the software product are specified in SRS. For the hardware interface, SRS specifies the logical characteristics of each interface among the software and hardware components. If the software is to be executed on the existing hardware, then characteristics such as memory restrictions are also specified.
7. **Functions:** It determines the functional capabilities of the system. For each functional requirement, the accepting and processing of inputs in order to generate outputs are specified. This includes validity checks on inputs, exact sequence of operations, relationship of inputs to output, and so on.
8. **Performance requirements:** It determines the performance constraints of the software system. Performance requirement is of two types: static requirements and dynamic requirements.**Static requirements** (also known as **capacity requirements)** do not impose constraints on the execution characteristics of the system. These include requirements like number of terminals and users to be supported. **Dynamic requirements** determine the constraints on the execution of the behavior of the system, which includes response time (the time between the start and ending of an operation under specified conditions) and throughput (total amount of work done in a given time).
9. **Logical database of requirements:** It determines logical requirements to be stored in the database. This includes type of information used, frequency of usage, data entities and relationships among them, and so on.
10. **Design constraint:** It determines all design constraints that are imposed by standards, hardware limitations, and so on. Standard compliance determines requirements for the system, which are in compliance with the specified standards. These standards can include accounting procedures and report format. Hardware limitations implies when the software can operate on existing hardware or some pre-determined hardware. This can impose restrictions while developing the software design. Hardware limitations include hardware configuration of the machine and operating system to be used.
11. **Software system attributes:** It provide attributes such as reliability, availability, maintainability and portability. It is essential to describe all these attributes to verify that they are achieved in the final system.
12. **Organizing Specific Requirements:** It determines the requirements so that they can be properly organized for optimal understanding. The requirements can be organized on the basis of mode of operation, user classes, objects, feature, response, and functional hierarchy.
13. **Change management process:** It determines the change management process in order to identify, evaluate, and update SRS to reflect changes in the project scope and requirements.
14. **Document approvals:** These provide information about the approvers of the SRS document with the details such as approver's name, signature, date, and so on.
15. **Supporting information:** It provides information such as table of contents, index, and so on. This is necessary especially when SRS is prepared for large and complex projects.