The Seed Company

Consultant Tracker System

SBU Senior Project Team

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Background

The mission of The Seed Company (SC) is to accelerate Scripture translation and impact for people without God's Word through Great Commission partnerships.

Business Need

To succeed in this mission, SC partners with other Bible translation organizations. SC supports these external organizations through the managing of Bible translation consultants who work on various portions of the Bible translation process. Traditionally, consultant managing has been done on a relational and as-needed basis. Field coordinators for projects would call on consultant managers when they needed a consultant for their project, and consultant managers would contact the consultants they know personally about the need.

SC has a tool intended to be used by consultants and their respective managers to help facilitate and speed up their assignment to different translation projects. It is ineffective in meeting those needs because not enough information about consultants is being captured, consultants are not maintaining their information, and field coordinators do not have a role in this system.

Project Description

The Consultant Tracker system will meet the needs of SC by creating one central place in which consultants, field coordinators, and consultant managers work to bridge the gap in communication, project assignment, and data storage/visibility.

Team Members

Name	Role
Jamison Whitehill	Documentation, Front-End Development
Jordan Brown	Backend and Database Development
Sean Bates	Backend and Database Development

Stakeholders

Name	Position
Andy Kellogg	Key Stakeholder - VP of Consultants
Steve Davenport	Lead point of contact - Software Development Manager
Justin Miller	Initial Point of Contact - VP of Information Technology
Milt Jones	Consultant Manager
Consultants	User of the system
Field Coordinators	User of the system
Consultant Managers	User of the system

Development Approach

For design and development of this system, we will be implementing a modified agile approach. We will spend a significant amount of time early in the project gathering requirements and documenting what we find. Then we will iterate through one-week sprints, showing the client our work as we develop, making modifications as we go, and delivering incremental value with each sprint so that we can produce the best possible product to meet the needs of SC.

Project Tools

We have been given freedom in what software tools/languages we can use during the course of this project. These tools have been chosen because of team member familiarity, team research, and suggestions by SC and SBU faculty.

- **Google Drive** - File storage and synchronization service
  - Used for storing and editing shared project documents
- **Github** - Version control
  - Used for storing and revising project code
- **Microsoft Visio** - Diagramming tool
  - Used to create project diagrams
- **Microsoft Azure** - Cloud hosting service
  - Used to host SQL Server and database for development
- **Microsoft SQL Server Management Studio** - Database management
  - Used to develop database scripts
- **HTML**
  - Web front end
- **CSS**
  - Styling of web pages
- **PHP**
  - Used to push and pull data from the database.
- **Microsoft Project 2016** - Project management tool
  - Gantt Chart Creation
- **Axure RP** - Mockup Creation Software
  - Clickable Mockup Editing, HTML & CSS Generation

Scope

In Scope

The scope of this project includes a functional web application used to access a database containing consultant information. The application we design will be able to access SC's current project management database to use certain project information. The project will be complete by May, 2018.

Out of Scope

The scope of the project does not include integration of our product into SC's existing systems. While we are designing this project in such a way that it can be used by consultants outside of SC, our scope does not include meeting the requirements of other translation organizations.

Costs

There are no direct costs to SC for this project. Indirect costs include the time SC's employees spend in meetings and assisting our senior project team members with various tasks associated with the consultant tracker.

Deliverables

By May 2018 we will deliver a web application consisting of a functional UI, database, and documentation over the entire system.

Security Analysis

The security of this project is little risk. Since all the data in our system is dummy data due to the fact that SC will not allow us to work on a project that might compromise the safety of any of its consultants. Should SC decide to use the web application that we build, it would be hosted on Amazon Web Services (AWS) which also includes TLS encryption, firewall protection, and backend encryption for enhanced security. Also, we allow for the use of permissions to be set in our system using the latest protocols and standards for authentication before the system can even be accessed which limits the data shown to data that is pertinent only to the user logged in.

Constraints

- Money - No budget, all software used is either freely accessible to the team or purchased by a student within the team.
- Time - Must be completed by April 15, 2018
- Tools - see money
- Availability of SC Staff - Lack of feedback from key stakeholders at SC because of lack of availability

Risks

1. Data Captured might not be the entirety of the data needed to make a decision on whether or not to assign a consultant to a specific project, and therefore not meet the overall objective of simplifying and streamlining the consultant management process.

2. Learning curve of new technologies may be too high for SBU team given time constraint.

3. Because SBU team is not responsible for integrating their project with SC's infrastructure, there is potential for integration problems.

Consultants may not have motivation to keep their information up-to-date, resulting in the system being ineffective in helping managers choose consultants for projects.

Solution Architecture

- MVC Web Application
  - Distributed User Base
  - HTML, CSS, Javascript, PHP
- Relational Database
  - SQL Server

Testing Plan

- Unit Testing
- Functional / QA Testing
- Load Testing
  - Hosted in cloud - AWS
  - Not as relevant because of scalability of cloud servers
- Usability Testing
- Security/Penetration Testing

Nonfunctional Requirements

- Consultant matching no longer based on a relational basis.

- Provide the ability to deploy SC translation consultants more strategically, and accomplish their goals more quickly.

- Reduce stress on Field Operations team members by providing quicker and more reliable responses on availability of translation consultant resources.
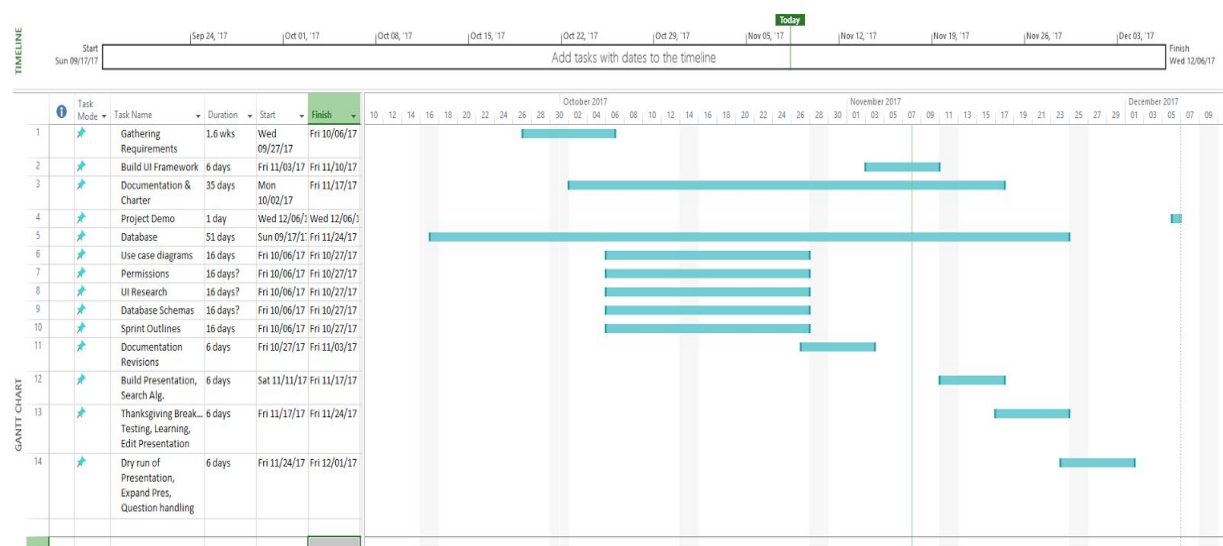
Functional Requirements

- Match consultants to projects automatically based on proficiencies and regions.

- Store all pertinent consultant translation information.

- Allow all users to maintain their contact information.

- Provide a means for field coordinators to request a consultant to be assigned to their project.

- List projects needing a consultant by quarter.

- Filter/search translation consultants by their languages of wider communication, proficiencies, and organizational affiliation.

- Provide a way to assign/remove a consultant to/from a project.

- Allow stored data to be updated and searchable with edit, add, and remove functions.

- Establish permissions that allow consultants to view only information that pertains to them, allow managers to see all consultant's information, and allow field coordinators to request that consultants be assigned to their projects.

Project Plan

Fall Semester	Spring Semester
09/25/17 Initial Contact With Seed Company	02/17/18 Contact Information View/Edit
10/09/17 Understanding Problem	03/03/18 Translation Proficiencies View/Edit
10/23/17 Gathering Requirements	03/17/18 Consultants View/Matches View
11/06/17 Design Solution	03/31/18 Workload View/Edit
11/13/17 Create Mockups	04/14/18 Authentication (Permissions)
12/06/17 Present Solution	04/15/18 Deliver Product to Seed Company
	05/05/18 Additional Usability Testing
	05/09/17 Present Final Solution

Gantt Chart

User Descriptions

Consultant:

Within this project, a consultant is an employee of The Seed Company or other

translation company who goes into the field to verify the accuracy and consistency of a

translated portion of the Bible.

Consultant Manager:

Within this project, a consultant manager is an employee of The Seed Company who

oversees the assignments and work of consultants under them.

Field Coordinator:

Within this project, a field coordinator is an employee of The Seed Company who works

on-site overseeing translation projects. They request consultant assignments from

consultant managers and oversee consultant duties in the field

User Stories

Field Coordinator:

- As a field coordinator, Mike wants to request a consultant to be placed on his project working on translating the gospel of Luke into Portuguese in Brazil.

- As a field coordinator, Mike wants to update his address because he is moving to eastern Asia for a new project.

- As a field coordinator, Mike wants to create a report after completing a project working on translating the gospel of Luke into Portuguese in Brazil.
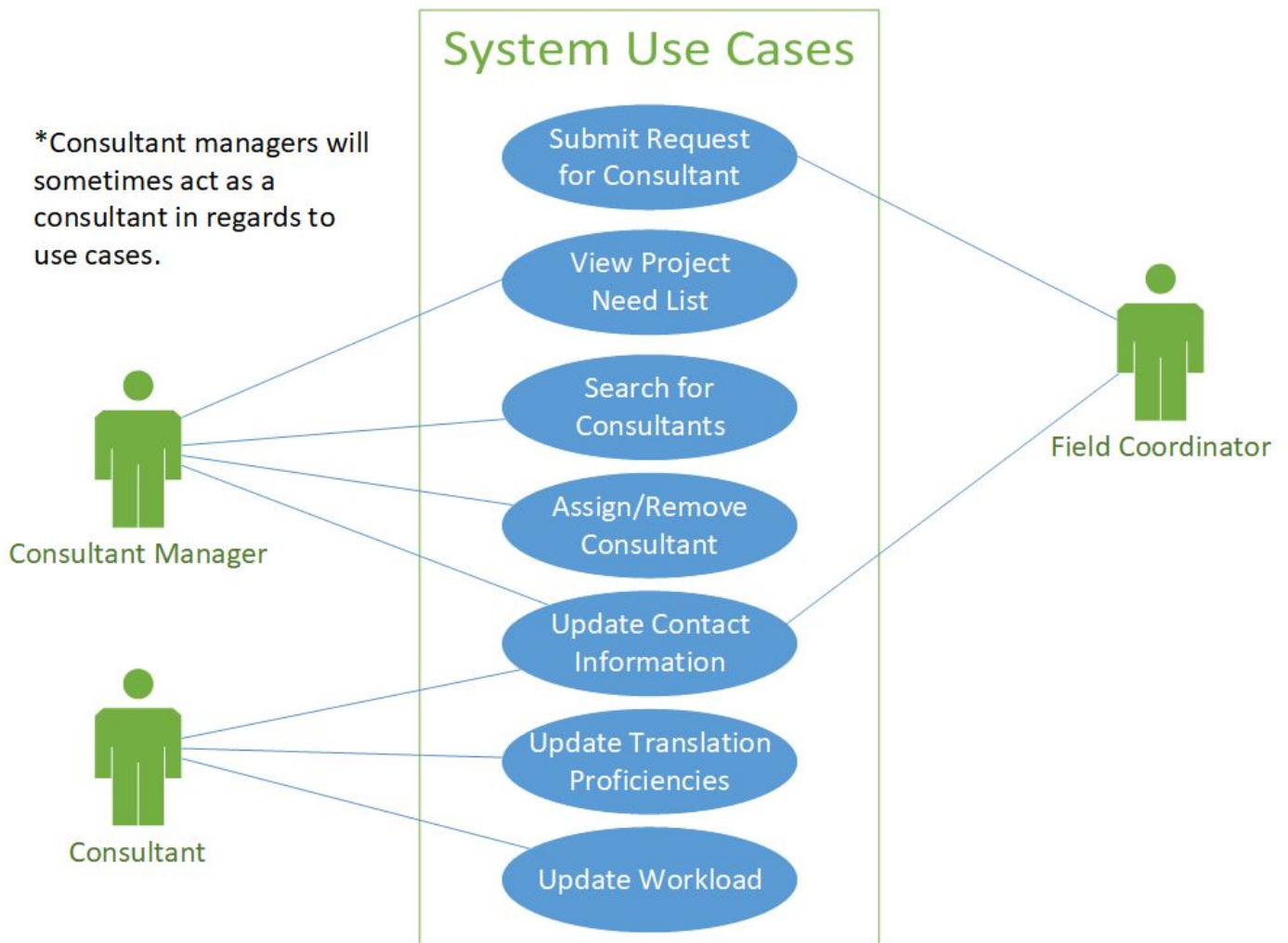
Consultant Manager:

- As a consultant manager, Lucy wants to remove Alex, a consultant, from a project because Alex is needed more on another project.

- As a consultant manager, Lucy wants to assign Mark, a consultant to a project because she had to remove Alex from the project.

- As a consultant manager, Lucy wants to search for available consultants with proficiency in Spanish and experience translating the Old Testament.

- As a consultant manager, Lucy wants to view the list of projects currently needing consultants to be proactive in consultant assignment.

Consultant:

- As a translation consultant, Mike wants to create a consultant profile with all his contact information, specify that he is advanced in the languages of Spanish and Portuguese.

- As a translation consultant, Janette wants to update her contact information because her previous email was hacked so that she can avoid using her previous email.
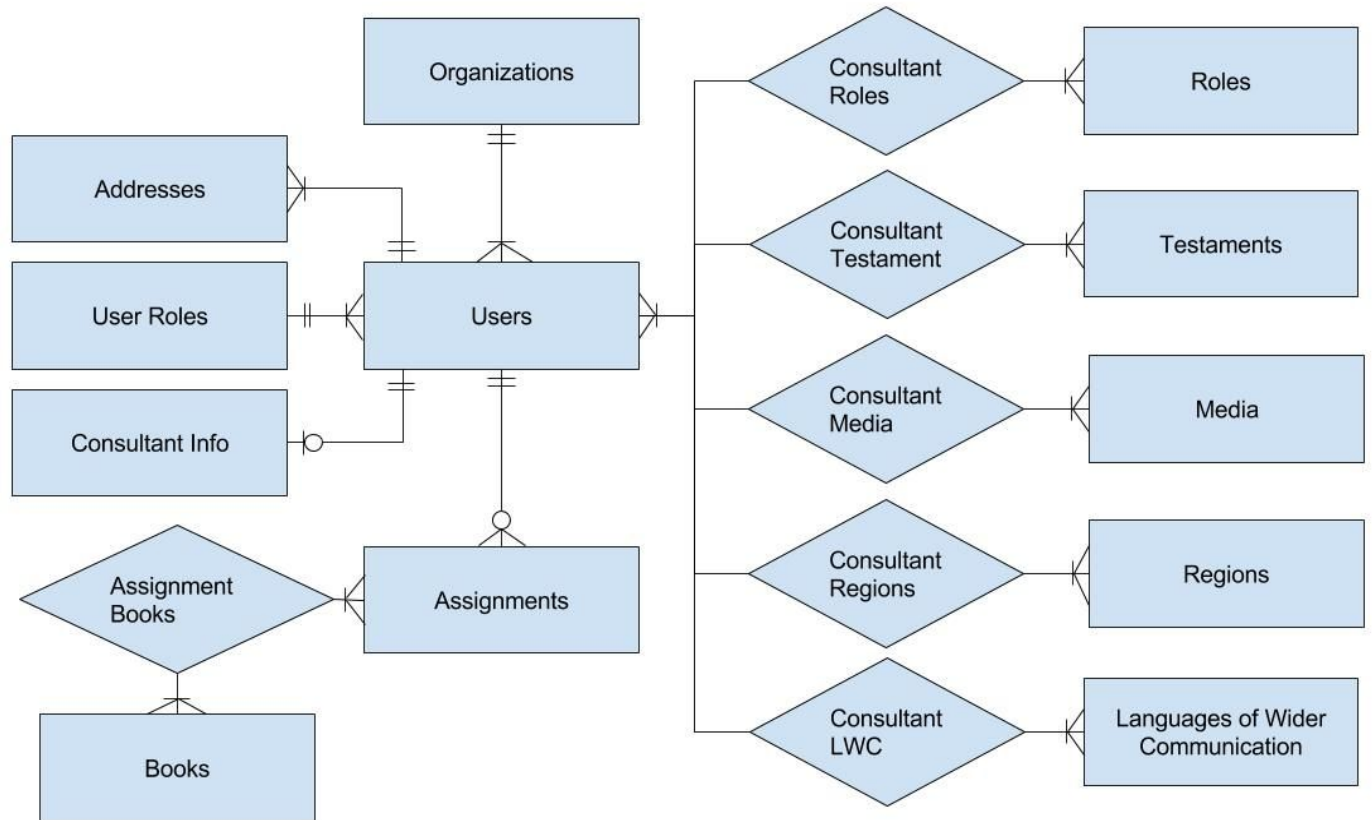
- As a translation consultant, George wants to submit a delay request for a project to which he is assigned so that he can spend time with his family for a couple of days because of an emergency before he starts the project.

- As a translation consultant, Jeremy wants to update his language proficiencies because he is taking a course in one of the languages of wider understanding so that he can be added to the appropriate projects with his new skill.

- As a translation consultant, Steve wants to create a report after completing a project working on translating the gospel of Mark into Portuguese in Brazil.

- As a translation consultant, Arthur wants to update the workload for an assignment he has received.

Use Case Diagram

Database Design

Entity Relationship Diagram

Database Schema