Miller Center Fellowship   Miller Center for Social Entrepreneurship

2015

Executive Summary for IMerit Software Requirements Specification

Christiane Kotero

Christine Rohacz

Follow this and additional works at: https://scholarcommons.scu.edu/gsbf

Executive Summary for iMerit Software Requirements Specification

Introduction

iMerit Technology Services trains and employs underprivileged and disadvantaged youth in the formal IT sector while providing support to global technology companies in much of U.S. and Europe. iMerit focuses primarily in the field of machine learning and computer vision - advanced technologies that are leading progress and innovation in the field of IT. The company is addressing a large need for companies around the world who need curated datasets, reliable algorithms, and digitalized records. Due to the large demand for services iMerit provides, the company has begun to scale its operations and is therefore reevaluating opportunities that may provide a strategic advantage.

iMerit's Growth and Technological Need

As the company begins to raise significant funding, hire more employees and open new locations, it is evident that iMerit is growing rapidly. iMerit currently has roughly 500 employees, spread across 5 centers in India and a wide variety of projects that come into the business. These projects are extremely diversified and include services such as dataset creation, rich data categorization, data verification, and machine learning processes. The company is positioned to expand into the field of Information Technology and this growth implies that iMerit will open up more centers in cities across India, hiring more employees and taking on more projects. Much of the data gathered from iMerit's internal operations is being used by many different team members and operational leaders and iMerit is using personalized software to help organize all this information. Given iMerit's recent growth into more diverse sectors and greater demand for iMerit's services, the company is beginning to question what further technological support could facilitate iMerit's growth in the future.

Approach

The operational team recognized the potential need for an improved centralized software platform that could provide iMerit with a greater competitive advantage and strategy for growth. However, it was unclear what this new version of software would look like. To answer this question, I set out to analyze the company's day to day operations and gather requirements for a new and updated software system that could meet the company's current and future operational needs. Over the course of five weeks in Kolkata, India, information was gathered from iMerit employees through semi-structure interviews and observations. This research was eventually transformed into models, diagrams, and descriptions that accurately described what the potential software system would look like and what capabilities it would have.

Deliverables

The research resulted in the creation of a software requirements specification (SRS) document - a blueprint that describes what needs a software system will address and how it will do so. This document is intended to help iMerit management and operational teams make a better informed decision on whether or not to invest in building a new customized software solution for their business. The SRS is made up of many individual components which are described below:

- Summaries and objectives for what goals the software aims to achieve
- Use cases diagrams that model all users of a system and all possible scenarios in which the user interacts with the system
- Use case descriptions which describe in greater detail the sequence of actions a user takes in order to achieve a specified goal
- The system's main features organized in order of priority
- A system's functional and nonfunctional requirements which describe what requirements the system must have an in what manner those requirements will be met.

Other deliverables that were made include an in-depth description of use case diagrams and an entity relationship diagram which models the how data is stored within a software system. Due to confidentiality reasons, we are not able to release the entire document for the public. However, figure 1 shows the a sample table of contents for what a SRS document normally contains. Other blurred out figures are shown to give the reader a better idea of what the deliverables consisted of.

Table of Contents

Figure 1 - Table of Contents for the SRS

Figure 2 - Use Case Diagram
An example of a use case diagram is shown above. Such a digram shows how different users of the system (known as actors) interact with the system in order to achieve specified goals.
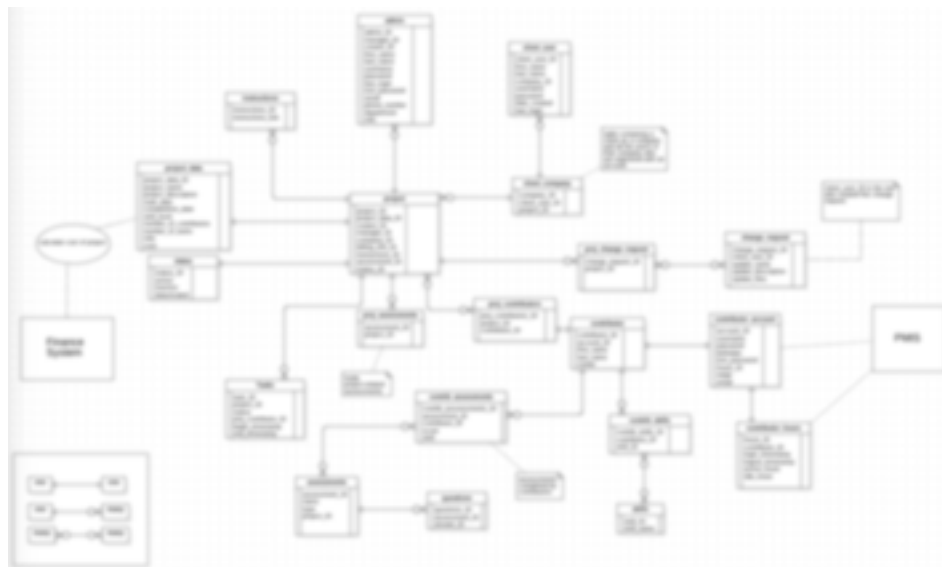

Figure 3 - Entity Relationship Diagram
An example of an entity relationship diagram which was given to iMerit is shown above. This diagram shows what data the system will store and how the data will be accessed.