SE 4485: Software Engineering Projects

Fall 2024

Requirements Documentation

|  |  |
| --- | --- |
| Group Number | 7 |
| Project Title | Build a Private Architecture Assessment LLM Using Past FCG Architectural Documents |
| Sponsoring Company | The Fellows Consulting Group (FCG) |
| Sponsor(s) | Tom Hill |
| Students | Gehrig French  Brandon Hernandez  Debra Samia  Samuel Williford  Bilal Zubair |

**Requirements Documentation**

**Software Engineering Capstone Project**

Build a Private Architecture Assessment LLM Using Past FCG Architectural Documents

**Group 7**

Gehrig French

Brandon Hernandez

Debra Samia

Sam Williford

Bilal Zubair

Department of Computer Science

University of Texas at Dallas

800 West Campbell Road

Richardson, TX 75080

**Industry Sponsor**

Tom Hill

The Fellows Consulting Group (FCG)

7356 Lane Park Ct

Dallas, TX 75225

**ABSTRACT**

This document presents the initial functional and non-functional requirements for <project name>. It provides a preliminary understanding of the system’s functionality and constraints, which may evolve as we continue to collaborate with stakeholders. The document includes an introduction to its structure, a detailed use case model, supporting rationale, and outlines and special requirements and key non-functional criteria necessary for the project’s success.

I think we should figure out a project name. I will ask Tom about that. “Build a Private Architecture Assessment LLM Using Past FCG Architectural Documents” doesn’t quite roll off the tongue.

**TABLE OF CONTENTS**

**LIST OF FIGURES**

**LIST OF TABLES**

**INTRODUCTION**

The purpose of the Requirements Document is to communicate the key components that are necessary to accomplish the University of Texas at Dallas software engineering capstone project. It displays the many different functionalities a user can utilize as they interact with the system, along with the types of non-functionalities our sponsor should expect for a satisfying experience.

**USE CASE MODEL FOR FUNCTIONAL REQUIREMENTS**

* GRAPHIC USE CASE MODEL
* TEXTUAL DESCRIPTION

FOR EACH USE CASE

* + Use Case Name
  + Participating Actors
  + Entry Condition(s)
  + Normal Flow of Events
  + Exit Condition(s)
  + Exceptions (Alternate Flow of Events)
  + Special Requirements

**RATIONALE FOR YOUR USE CASE MODEL**

**NON-FUNCTIONAL REQUIREMENTS**

* Performance
* Usability
* Security
* Availability
* Reliability
* Scalability
* Compatibility
* Portability

**EVIDENCE THE DOCUMENT HAS BEEN PLACED UNDER CONFIGURATION MANAGEMENT**

**ENGINEERING STANDARDS AND MULTIPLE CONSTRAINTS**

* IEEE Std 830-1998: Software Requirements [[pdf](https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=720574)]
* IEEE Std 29148: Requirements Engineering [[pdf](https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6146379)]
* ISO/IEC/IEEE Std 29148-2018: Systems and Software Engineering
* Life Cycle Processes
* Requirements Engineering [[pdf](https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6146379)]

**ADDITIONAL REFERENCES**

* Lamsweerde, A.V., 2009. Requirements Engineering: From System Goals to UML Models to Software Specifications. John Wiley