2.0 System Overview:

This current chapter (chapter 2) of the document gives a general overview of the functionality of the Ulysses project. The third chapter looks to define the Functional Requirements that will need to be fulfilled in order for the project to be considered a success in addition to the data modeling and process modeling that will aid in the development of project Ulysses. Chapter four examines the Non-Functional requirements and how they will be viewed and experienced by the user base from multiple perspectives of the platform. Chapter five covers the Logical Database Requirements and why they’re structured in the way that they are in order to deliver the desired functionality of the project. The sixth chapter of this document goes into minor detail regarding any requirements that have not yet been addressed but are still ever-present. And the final chapter (Chapter 7) concludes with the signatures of the project contributors signifying that everything within this document is aligned in accordance with all of our contributors viewpoints towards this project.

// --- //

2.1 Project Perspective:

The Ulysses Project is designed to be a self contained system that seeks to implement many currently used technologies to meet the needs of InTech House Design. The system has been requested by an individual under the pseudonym “Tyler Durden” to provide an easy and convenient way for the clients of InTech House Design to get in contact with qualified individuals to whom they supply various metrics for purposed construction projects. The metrics can be viewed by said qualified individuals who can then supply a quote for the project in a quick and timely manner. Our team aims to not only gather the logistical requirements necessary to properly identify the scope of the project, but also to program and design Ulysses from the ground up in order to provide a fully independent and operable platform for our primary stake holders to utilize throughout the operation of their business and that of their clients.

// --- //

2.2 System Context:

The system aims to take advantage of four primary subsystems that will incorporate a variety of different types of software in order to realize it’s full functionality and potential. The web application that the majority of clients will use shall be heavily leveraging HTML, CSS, JavaScript and SASS in order to provide the user with a clean interface and responsive experience. The incorporation of an address prediction bot utilizing machine learning will ease some input from the user, allowing them to do more with less.

The desktop application exists to allow the qualified individuals (architects, engineers, etc…) to query the database that will be housing the majority of the of the usable data submitted by prospective clients. The desktop application will be running primarily on Java in order to ensure a high level of system compatibility.

The server shall be run largely on PHP incorporating “Laravel” in order to handle server requests, responses and database queries that may be sent by clients or passed to the database by users of the desktop application.

And finally, the database will be comprised of an SQL relational database following a strict schema following the conventions of “3rd Normal Form” data storage in order to reduce data redundancy while also increasing memory efficiency.

// --- //

2.3 General Constraints:

Use of the AGILE project development method will impact the project by forcing incremental development on a week-by-week basis but ensuring that constant evaluation and re-evaluation is incorporated into the development of Ulysses. This will help promote a constant pace of developments while reducing scope creep, feature creep and crunch time. This methodology will also ensure that features are able to be tested for quality and functionality shortly after development in manageable “chunks” or increments rather than rushing project testing close to the end of the development window. AGILE also aims to include the primary stake holder, “Tyler Durden,” in the development process so as they can witness and evaluate the development on a week by week basis in order to stay maximally informed of the growth of Ulysses over time.

Use of a relational database with a strict schema as opposed to a non-relational database will greatly reduce the frequency of non-conforming or illegitimate data being committed to the database while also providing strict criteria through which to query valid or usable data.

Us of an external third party dedicated hosting service for the server and database will provide a steady and stable “always online” platform for which Ulysses to run, guaranteeing 24 hour service but incurring a regular monthly cost.

// --- //

2.4 Assumptions and Dependencies:

Involvement of our primary stake holder (Tyler Durden) will likely be infrequent due to his work related responsibilities. Tyler Durden maintains a busy work life outside of this project as well as attending to other exterior duties. As a result, contact with him will not be able to be maintained on a weekly basis in synchronous with our stand-up meetings.

Acquiring an external domain for our online application will have to be factored into our costs as none of the stakeholders currently possesses the hardware necessary to maintain it. In addition a data base will also have to be supported and maintained as an always online service, further increasing costs.

Time dedicated to the project will not be consistent from week to week due to exterior academic factors including assignments from other courses and regular scheduled testing of different knowledge sets and disciplines.

Finally, different academic time tables split across our project contributors will disrupt group member attendance of regular meetings. This will likely lead to communication gaps that will need to be filled on a regular basis.

// --- //