Analysis Report

General

4.1- Requirements need to be analyzed after eliciting to understand the business problem. Some stakeholders perhaps don't know what the main problem is or aren't able to articulate the main problem. Analyzing helps produce requirements that are clear, useful, and relevant. Requirements can be classified in several different ways. They can be considered functional or non-functional. Functional states what the system should do. Non-Functional states how the system should perform a certain function. These requirements can be derived from higher level requirement's or can be received from the stakeholder. Measuring the scope of the requirement also can help determine the stability or volatility it will impose on a system.

4.2- There are several factors that influence the choice of modeling notations. The nature of the problem can prioritize specific functionalities over others for modeling projects. Adopting a modeling notation or method from a software engineer with expertise in a specific component. The process requirement of the customers may impose their favored notation or method or prohibit what they deem unfamiliar. In most cases, it is useful to start by building a model of the software context since it provides a connection between the intended software and its external environment.

4.3- Allocation is important to allow detail analysis of requirements. The process requires analyzing the requirements and deriving more requirements from that one requirement. This produces higher order requirements that may be an important factor to what was once a low order requirement.

4.4- Requirement's prioritization is necessary to filter important requirements and resolve conflicting requirements that could arise from different views from the stakeholder. This requires complex decision making which requires detailed domain knowledge and good estimation skills.

4.5- Formal analysis is focused on relatively late stage of requirements analysis. It enables requirements to be specified precisely and allows requirements to be reasoned over, permitting desired properties of the specified software to be proven.

My Project

I sat with my sponsor and went along with what he was mainly looking for in his product. Writing down rough ideas in JIRA within the backlog for the potential requirements that will satisfy his needs, I was able to produce roughly twenty user cases.

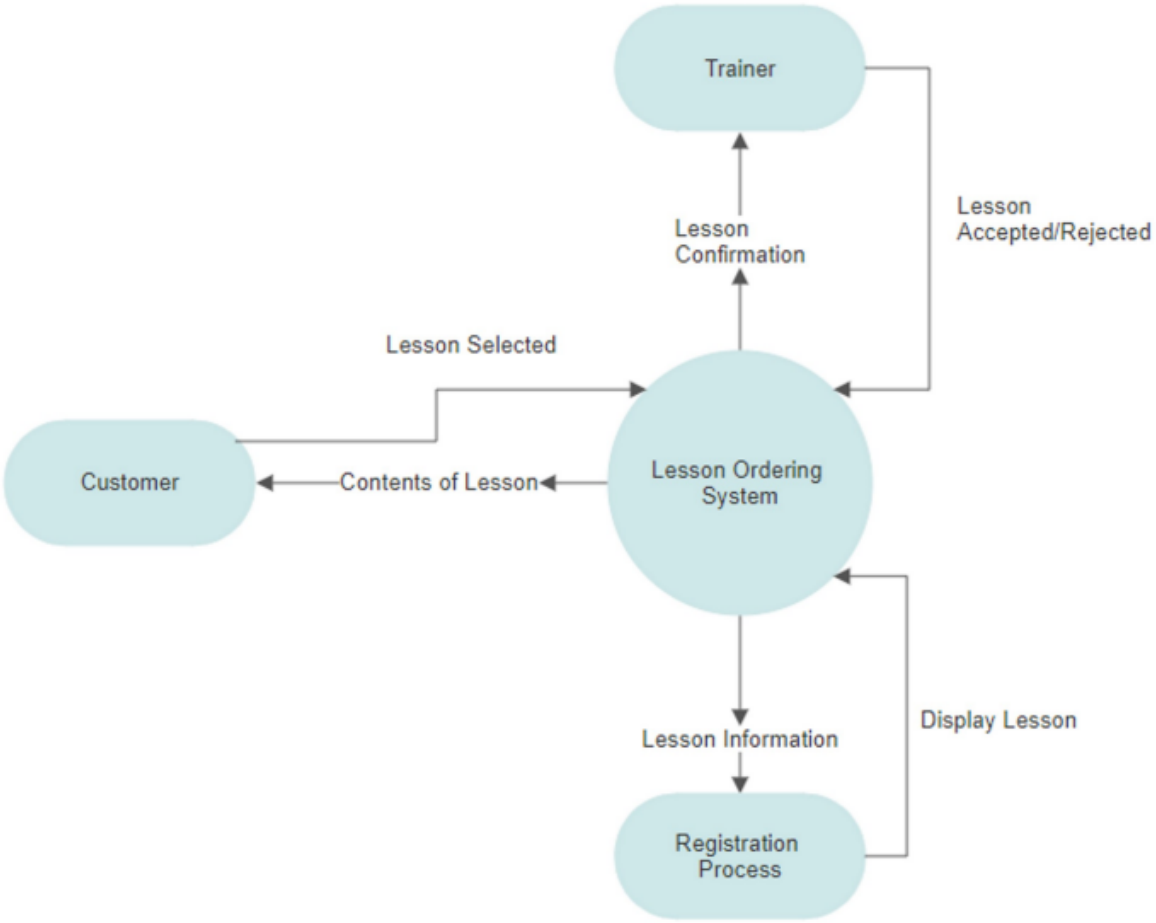
Key	Summary	T	P	Labels	Verification Approach
PROG-53	The user shall choose between virtual lessons or in-person lessons.			Functional	Demonstration
PROG-52	The system shall be updated by the developers.				Inspection
PROG-45	The user shall choose to stay logged in to avoid having to sign in every time the product is accessed.			Non-Functional	Demonstration
PROG-44	The product shall run on the five most recent versions of Samsung Android OS to accommodate for users who don't have the newest devices.			Functional	Inspection
PROG-43	The product shall run on the five most recent versions of Apple iOS to accommodate for users who don't have the newest devices.			Functional	Inspection
PROG-42	If it is the users first time using the product, then the user shall select "join now" below the password field to register for the product.			Non-Functional	Test
PROG-41	The user shall be prompted to sign in when accessing the product.			Functional	Test
PROG-40	The user shall view their registered lessons and the weather from the home page when logged in.			Functional	Inspection
PROG-39	The user shall access the rental page from the hamburger icon in the bottom right to see what is available for rental before signing up for lessons.			Functional	Demonstration
PROG-38	The user shall access the settings of the product in the hamburger icon in the bottom right for specific changes to the product interface.			Functional	Demonstration
PROG-37	The user shall access the registrations page from the hamburger icon in the bottom right to sign up for available lessons.			Functional	Demonstration
PROG-36	The user shall access their profile from the hamburger icon in the bottom right to edit, view their information.			Functional	Demonstration

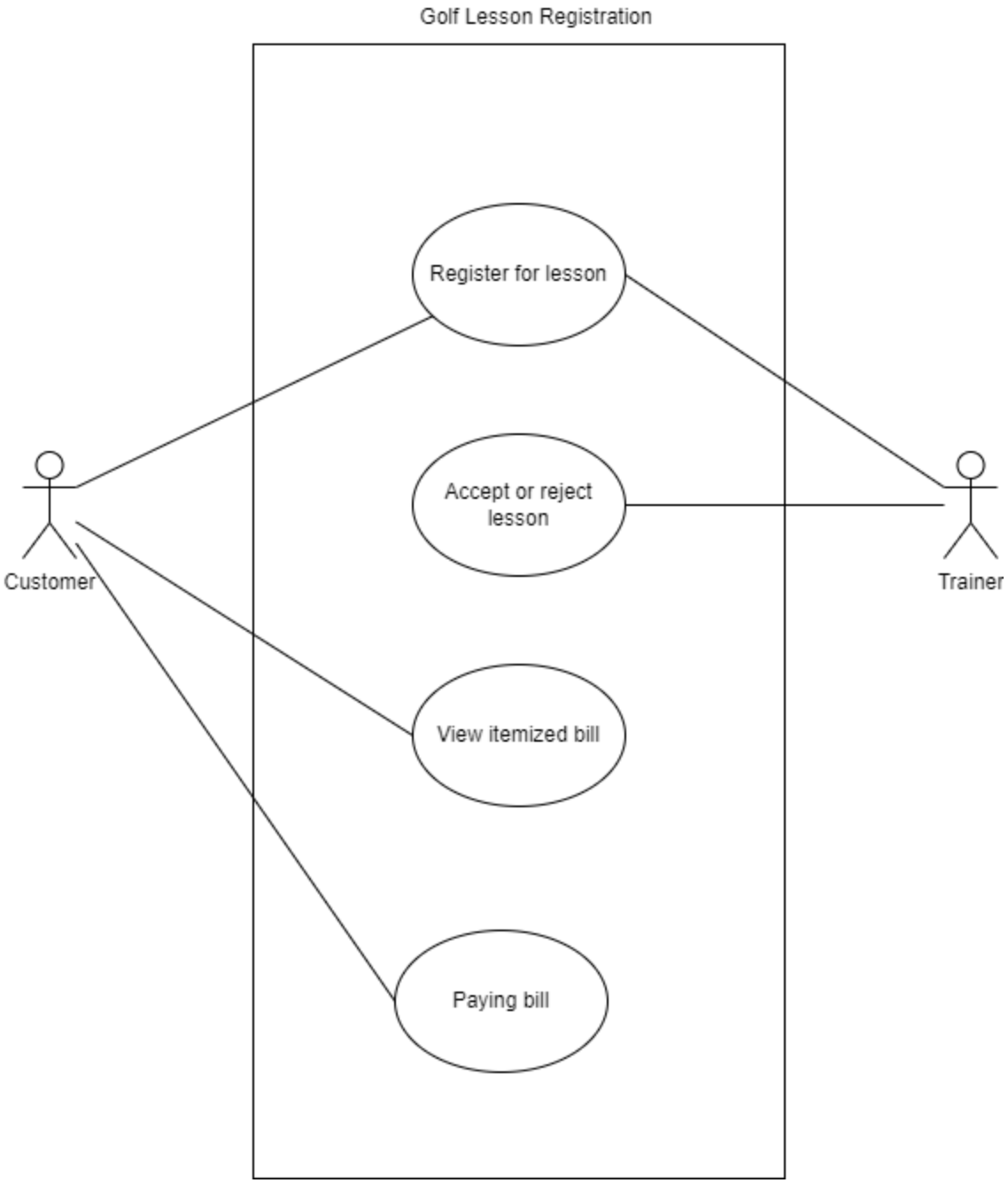
PROG-27	The system shall produce a scheduled lesson for the trainer to follow up on after the user registers.			Functional	Test
PROG-26	The system shall produce a scheduled lesson for the user after registration.			Functional	Test
PROG-25	The system shall maintain count of available rental equipment.			Functional	Test
PROG-24	If there is a lack of equipment or no equipment, the system shall alert the user that the product in question is out of stock.			Non-Functional	Test
PROG-23	The user shall have access to their accounts from all Samsung mobile devices five generations and younger.			Functional	Analysis
PROG-22	The user shall have access to their accounts from all Apple devices five generations and younger.			Functional	Analysis
PROG-21	The system shall store new user logins within the devised database for the system for quicker logins.			Non-Functional	Inspection
PROG-20	The trainer shall access their designated account to cancel the lesson.			Functional	Demonstration
PROG-19	The system shall prompt the user the option to access the rental page after selecting a lesson date.			Functional	Demonstration
PROG-18	The system shall store selected lessons and rented equipment in the cart for later transaction.			Non-Functional	Analysis
PROG-17	When the user pays for a lesson, the system shall prompt the user for how they will pay.			Functional	Test

23 issues

This set of requirements after reviewing them with a colleague have been verified for completeness, are consistent with the sponsors intent of the product after reviewing them with him, are deemed feasible, comprehensible to a developer mindset, and have a method of validation for each requirement according to the ISO/IEC/IEEE 29148 book.

Requirements Review


Trainer
Lesson
Confirmation
Lesson
Accepted/Rejected
Lesson Selected
Customer
Contents of Lesson
Lesson Ordering
System
Lesson Information
Display Lesson
Registration
Process



I used the Elder Paul critical thinking method for devising the set of requirements. I first identified the purpose of the product from my sponsor, which was to make scheduling easier for himself and clients. The question at issue was how could the product benefit his business goals and what is specifically needed for what is essentially the first version of a released product. Gathering information and with what he is limited to, the only possible conclusion is to make the product simple as can be with a registering function, a payment function, and a rental function. This covered the stakeholders original purpose, answers the problem, and gives a bit more to cover any issues that can arise within the first iteration, or release of the product. The assumptions for the rental function is that clients who are interested in learning may need the proper equipment they have no access to. We assume with these bases covered, we will remove any problems that may arise after release.