**Feasibility Report**

*Introduction/Executive Summary:*

One of the most essential and integral functions of a business is its management of inventory. The purpose of the project is to create a complete solution for inventory management for a company that loans filming location equipment.

This was based on a proposal that a friend had made about his current system that his company uses. Many inventory systems in all sectors are outdated and do not provide easy accessibility and ease of use, but rather proprietary software that need to be installed on local computers and that require physical barcode scanners and where there is a lot of friction in communication between the customer and supplier.

By creating a website the inventory management system becomes more accessible as proprietary software to access a database of the inventory information does not factor into the process of executing many low level daily tasks such as inventory checks. Adding a ticketing system allows for a straightforward means of communication between the client and its customers. Tickets can be logged and responded to in an orderly fashion, with control of response time.

*Background:*

By pursuing this project, I aim to learn different aspects of developing both the back end and front-end development of an application.

Front-End:

* Website design – I have experience with HTML and CSS and creating basic static web pages. But from research I would like to incorporate the use of ASP.NET to develop a dynamic webpage.
* I would like to style this project using Bootstrap.
* GUI - I have designed simple UI’s before in different programs; however, I aim to understand MVC (Model-view-controller) by the end of the project, in order to understand an industry standard of GUIs and designing web applications.

Back-end:

* Creating a dynamic database - I have had previous exposure to obtaining data from databases and performing data analysis through the use of R. I have had some but limited exposure to SQL, by the end of this process I intend to understand communication with databases via SQL.

*Outline of the project:*

The objective of the project is to develop an inventory management system for a company that loans filming location equipment.

The choice of interface for the client will be a website. The website's UI will be designed for clarity and ease of use. On the same website, the client and its customers will be able to log in and different information will be available to them.

The website will allow the client to:

* Check inventory levels for current stock. The inventory data will be stored in a database, and will be displayed on the website in tabular form.
* See customers' loan request for equipment through the use of a ticketing system.
* Allow the client to allow customers to loan items using the ticketing system, which will in turn update the database's inventory levels, and thus the information on inventory on the website.

The website will allow the customers of the client to:

* Customers will be able to see what they are able to loan based on the inventory left.
* Customers will also be able to access the ticketing request section where they can request loans and receive a quote returned via email.