**Counting Sheep**

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**1. Project Definition (**100 - 200 words**)** –*Group responsibility*

The purpose of this project is to make a hotel management system that allows both front and back end users to access and use the system. Since this is an application that will allow users to book hotel rooms, it will need friendly and easy to navigate GUI so that booking a room, requesting services and other accommodations is not an issue. The application will also support back end needs to employees whom follow up on their customer’s requests in order to make sure that all necessities are in place and issues are taken care of, as a key feature of this application allows users to directly make requests to the employees of the hotel they are staying in. All of this will be achieved by having a good application that is easy to use on both front and back ends, will allow easy modification, an up to date database that will make sure that there are no miscommunication anywhere in the application.

**2. Project Requirements** – *Group responsibility*

* Functional

The application will serve as a way for clients to book different hotels and rooms to try to get the best prices, deals, request services. It will serve as the gap between the hotel and the user and be the middleman where the customer will try to get the best deal. On the back send, it will allow operators of different hotels to manage their task all in one place. Customer could request service, cleaning and other responsibilities and the staff would get on it to get them done while they can also see other aspects of the business on the back side.

* Usability
  + User interface

There will be a GUI application that will allow both users and hotel employees to retrieve hotel information and make requests in an intuitive manner.

* + Performance

The program will load itself within a few seconds. The system will also load information from the database to the user quickly to prevent wasting the user’s time.

* System
  + Hardware

The system will be a desktop application and can be converted to a mobile application so users can use it anytime they want.

* + Software

This will be a desktop application connected to a SQL database. It will use Java FX to display information to the user

* + Database

This system will use SQL database that updates in real time in response to user inputs.

* Security

Each user will have their own login credentials so that no one else can log in their account. Once the user logs in, there will be a security question the user will need to answer before they can access their entire account. They can reset their password using the question or another form of sensitive information like their social security number.

**3. Project Specification** – *Group responsibility*

* Focus / Domain / Area: Hotel Booking/Management for both front and back end users - Both the users or guests and the users as in management for the hotels will be able to use the application all in one place. You will not have to book in one place, and use another application to contact hotel staff or anything and the hotel will be able to contact you directly from the same application making it as smooth it can be.
* Libraries / Frameworks / Development Environment: This application will be programmed in JavaFX using the NetBeans IDE. It will use the Java Authentication and Authorization Service (JAAS) framework to maintain security in the whole system. The application will also use the JDBC API in order to connect the application to a database. The database itself will be created using mySQL in mySQL Workbench.
* Platform (Mobile, Desktop, Gaming, Etc): The application will be a desktop application, and all the users will only be able to access it from a PC or laptop only. It can be developed into a mobile application but for now we will keep it PC only.
* Genre (Game, Application, etc): Travel/Management Application - The application is a travel application where it allows people to book rooms in hotels from anywhere. It will allow users to try to get the best rates possible and will allow the hotel owners to keep up with all the booking and accommodation from the website also.