An application for medical equipment rental.

* Primary users of the application: company employee including sales, financial staff, management staff, and system administrators

The application is expected to achieve:

* Process rental transaction
* Track real-time inventory
* Generate daily inventory report (snapshot)
* Generate daily invoices for renters and referral parties
* Generate weekly/monthly financial summaries
* Generate daily alerts for overdue rentals
* Predict the next available time for each equipment type

What users can do:

* System administrators can add/delete users
* Users with different privileges can access different types of reports

Possible ways to make it more complex:

* Expand the users to referral parties and renters
* Referrers and renters can access their respective reports
  + Referrers report: monthly invoice
  + Renters report: equipment and payment status

**Study Plan**

The project will address the three competency goals of the course. The course content so far has covered some foundational aspects of each competency model, which can be applied in the learning project I’ve identified. I propose increasing the complexity of the project in line with the more challenging objectives of the course.

Initial study plan:

**Data Analytics**   
Level 1: can be accomplished through the Individual Renter Report   
Level 2: can be accomplished through the other daily/weekly/monthly reports  
Level 3: to be achieved along with the course learning  
Level 4: to be achieved along with the course learning  
   
**Data Modelling**  
Level 1: create a relational database with proper entities and relationships and load data  
Level 2: normalize and decompose to achieve minimal and complete database design  
Level 3: to be achieved along with the course learning  
Level 4: to be achieved along with the course learning

**Back-end Engineering**  
Level 1: to be achieved along with the course learning  
Level 2: to be achieved along with the course learning  
Level 3: to be achieved along with the course learning