Please provide the following information to be shared with on capstone information exchange platform:

1. **Project number**: 49

2. **Project title (as will appear on the poster)**: ARM (Automated Retail Monitor)

3. **Team members**: Kevin Horlavadi, Govindaraj Muthukrisnan

4. **Adviser(s) name(s)**: Dr. Hana Godrich

5. **Up to 10 keywords that will help to classify the project**: Automation, Smarthome, Retail, Internet of Things (IOT), Sensors, RF, Mobile Application, Arduino, Bluetooth, NFC

6. **Project abstract (up to 200 words) to be shared with judges**:

ARM, Automated Retail Monitor, is a retail automation system designed in conjunction with a local restaurant (Tacoria). To ease the role of a manager, we developed a system of sensor nodes spread though the store. The sensors allow the retail space to keep track of various points across the store and notify on-shift employees if problems or tasks arise. For example, if a fridge door is left open too long, a temperature sensor and a reed sensor would notify the employee on duty to check the fridge if the door has been open too long or the temperature has risen passed a desired range. A smartphone application is connected to the central hub which receives sensor data and notifies employees. Once notified, the employee must tap an NFC tag to the activated sensor to clear the notification and signal to the system that the event has been managed. With NFC points, timers within the system allow management to require employees to check and tag designated points every x amount of minutes, thus eliminating employee negligence with timed tasks. Altogether, ARM gives managers a system to ensure employees are completing tasks and that they are doing so in a timely manner.