BCRM'24 | Project
Milestone 2

Problem Description:

There are various examples of systems that the information is one of its critical assets that is required to be protected such as Healthcare IoT Systems, Retail IoT Solutions, Smart City Infrastructure, Industrial IoT (IIoT) Systems, and Smart Home Systems. These previously mentioned systems are required to be protected against any potential attacks. Thus, information security risk management is required to be applied to determine the existing vulnerabilities, the critical assets, the potential threats, the threat agents, and the measurement criteria which is vital for each system. Furthermore, the likelihood, the consequence, and the risk levels are required to be determined. Finally, risk treatment methods are required to be suggested to eliminate the risk level to an acceptable level.

Required

- Based on the results that has been obtained from project milestone 1, each team **must choose one of the systems** that have been illustrated in table 1, then apply one of risk assessment methods that have been declared in the project milestone 1.
- The risk assessment approaches which will be applied are OCTAVE Allegro and EBIOS only.

Table 1: Samples of Information Systems and Their Description

#	System Name	System Description
1	Healthcare IoT Systems	Wearable health trackers and remote monitoring devices that collect data on vital signs, activity levels, and other health metrics, transmitting this information to healthcare providers for remote patient monitoring. IoT-enabled medical devices such as insulin pumps, pacemakers, and continuous glucose monitors that provide real-time data to patients and healthcare professionals, improving treatment outcomes and patient safety. Smart pill bottles and medication dispensers with IoT connectivity to track medication adherence and send reminders to patients.
2	Retail IoT Solutions	Smart shelves and inventory management systems that use IoT sensors to track product levels in real-time, automate reordering, and prevent stockouts. Beacon technology for location-based marketing and personalized customer experiences in stores, sending notifications and promotions to shoppers' smartphones based on their proximity to certain products or areas. Smart checkout systems that leverage IoT technology for contactless payments, inventory scanning, and customer analytics.
3	Smart City Infrastructure	Smart parking systems that use IoT sensors to detect available parking spaces and provide real-time information to drivers through mobile apps. Traffic management systems that utilize IoT sensors and cameras to monitor traffic flow, optimize signal timing, and detect accidents or congestion. Air quality monitoring systems with IoT sensors deployed across the city to measure pollutants and provide data for environmental management and public health initiatives.
4	Industrial IoT (IIoT) Systems	Predictive maintenance systems for machinery and equipment in manufacturing plants, using IoT sensors to monitor performance and detect potential failures before they occur. Asset tracking systems that utilize IoT-enabled tags or GPS trackers to monitor the location and condition of inventory, tools, and equipment in warehouses or logistics operations. Smart agriculture solutions incorporating IoT sensors for monitoring soil moisture, temperature, and crop health, enabling precision irrigation and optimized crop management.
5	Smart Home Systems	Smart thermostats like Nest or Ecobee that adjust temperature based on occupancy and user preferences. Home security systems with IoT-enabled cameras, motion sensors, and door/window sensors that provide remote monitoring and alerts. Connected appliances such as refrigerators, washing machines, and ovens that can be controlled

Instructions:

1) Teams will be the same as in project milestone 1.
2) The deadline will be on Thursday 23 May at 11:59 AM before the lecture time.

Deliverables:

https://forms.gle/pHu43go8JnukX95C9