Ramallah's Amazon Go!

Purpose:

The purpose of this group project is to propose a realistic design for the first Amazon Go! in Iceland (Ramallah's Amazon Go!). This is a conceptual framework project! Feel free to make your own reasonable assumptions which are in line with the business process. It is important to note that this project is not to promote any company and the goal here is purely educational.

Quick Overview:

Amazon Go is enabled by an e-commerce mobile application which allows for shopping at a physical store without having to wait in lines or using registers. The first Amazon Go store has opened in Seattle/US. Several technologies have made Amazon Go a possibility. Amazon Go uses sensor technology, AI, machine learning, and machine vision to achieve its goals. This project focuses on Internet-of-Things/Everything and security needs within the proposed Iceland's first Amazon Go!

Group Project:

This is a group project. Group members are expected to work together as a team. Team members are free when it comes to dividing project responsibilities. Project's grade consists of two parts: group score and individual score. Details about grading are included in project's grading rubric.

Groups Assignments:

Groups will be assigned by the professor.

Project Requirements:

To meet the requirements of this assignment:

1) Group Component:

a) Project Report: A (7-10)-page design report is required to cover all proposal aspects including security issues. A dedicated section to cover security issues and suggested solutions is required. It is recommended to include any diagrams within the required page limit. If more pages are needed for diagrams, an appendix can be used.

b) Group presentation: a 20-minute group presentation is required. Feel free to use any presentation tool. It is required that the presentation is done and presented as a group. The presentation style is up to each group. However, each team member should participate in the presentation.

2) Individual Component:

In addition to participating in the final presentation, each team member needs to include a **1-page reflection** of his/her own experience when it comes to designing the first Amazon Go store in Iceland. This reflection must be included within the final report.

Submission Deadlines

The presentation day is on **Friday Dec 14, 2018**. The report is due on **Friday Dec 14, 2018 10pm**.

Submission Guidelines:

All submissions must be done online. The required files are: 1) Copy of the final presentation and 2) Copy of project report. Each student is required to submit (1) and (2) individually. The 1-page reflection must be included in the final project report as an extra page. The reflection page is excluded from project's report page limit.

Suggested Readings:

1) http://uk.businessinsider.com/category/amazon-go?r=US&IR=T (Links to an external site.)Links to an external site.
2) https://www.forbes.com/sites/groupthink/2017/01/20/amazon-go-is-about-payments-not-grocery/#277f253867e4 (Links to an external site.)Links to an external site.
3) https://patents.google.com/patent/US20150012396 (Links to an external site.)Links to an external site.
4) https://www.geekwire.com/2018/third-amazon-go-location-opens-week-second-store-accelerating-amazons-quest-end-grocery-checkout-lines/ (Links to an external site.)Links to an external site.
5) https://spindance.com/aws-iot-core-security/ (Links to an external site.)Links to an external site.
6) https://aws.amazon.com/iot-core/ (Links to an external site.)Links to an external site.

7) https://aws.amazon.com/iot-device-defender/?sc_channel=PS&sc_campaign=acquisition_&sc_publisher=bing&sc_medium=ACQ-P%7CPS-BI%7CNon-Brand%7CSU%7CIoT%7CIoT%20Device%20Defender%7CND%7CEN%7CText&sc_content=security_p&sc_detail=iot%20security&sc_category=&sc_segment={creative}&sc_matchtype=p&sc_country=&sc_kwcid=AL!4422!3!{creative}!p!{placement}!o!!iot%20security&s_kwcid=AL!4422!10!71056022822431!71056387741379&ef_id=W0b2DgAAAGkOjgu9:20181116220506:s

8) http://www.cafesoft.com/products/cams/ps/docs32/admin/SSLTLSPrimer.html (Links to an external site.)Links to an external site.

9) https://cloud.google.com/solutions/iot/

Suggested Topics to Consider and Cover:

Overview of Amazon Go! Technology?

Justification for Suggested Location(s)

Feasibility Study

Possible IoT Architectures

IoT Platforms

IoT Hardware Vendors

IoT Edge Computing Software Vendors

Comparing AWS IoT Platform with Other IoT Platforms

IoT Platform vs. Edge Computing

Security and Billing Issuesn

IoT Protocols

Proposed Design

Execution Plan

Challenges that might face Amazon Go in Palestine