Project 01: Develop an Amazon Alexa Skill

Objective: Develop and execute a plan-based software development cycle to produce a deliverable product within a short time period

Groups: Groups of 4 students.

Deadline: November 1, 2023

Project Description:

In this project, you must fully develop an Amazon Alexa skill that can interface with a website to answer basic questions about the information presented on the website. You can pick the source of the information, but try to find a source that has a moderate amount of information that can be looked up (not too little, not too much). Ideally, the information would be updated from time to time (and your skill will give you up-to-date information), but try to avoid data that changes in real-time.

Your Alexa skill should be able to process and respond to a few different types of queries. Think about the different types of verbal commands would be appropriate and try to support different variations. Refer to the Amazon Alexa Developer website (also includes an emulator that allows you to test commands) and use Google for information on working with the Alexa skill.

You will submit the following deliverables:

1. A project plan
2. A requirements document
3. A functioning Alexa skill that meets the requirements outlined in the project plan, including brief end-user documentation
4. A recorded oral presentation and demonstration of the developed work, to be uploaded to YouTube, no later than **Wednesday, November 1st.**

Ground Rules:

- The project must be completed in a group. There will be a total of 4 groups, each group with 4 people (there may be some overflow groups of 5 people).
- Each person must demonstrably execute an **equitable proportion** of the overall work. You will be required to complete an evaluation of your personal contribution as well as the contributions of your group mates at the conclusion of the project.

- All software you develop must be organized in a way that others can continue development of your software after completion of this assignment.
- The skill must limit the extent on which it relies on hard-coded data.

Requirements for the Deliverables

(1)   Initial Project Plan (Due October 4, 2023)

Your project plan must identify:

1. Team composition and the roles/responsibilities of each member.
   a. Select a Project Manager who, among other things, will be responsible for submitting deliverables by the deadlines.
2. Communication plan for team members
3. Initial work breakdown
4. Initial project schedule

The PM will upload the Initial Project Plan on the course Moodle no later than **11:59PM** on **Wednesday, October 4, 2022.**

(2)   Requirements Document (Due October 13, 2023)

Your requirements document must identify:

1. Prioritized list of functional requirements
   a. Prioritization of functional requirements shall be based on the **MoSCoW method**.
   b. All requirements should fit the **SMART criteria**.
2. List of non-functional requirements

The PM will upload the Requirements Document on the course Moodle no later than **11:59PM on Friday, October 13, 2023.**

(3)   Presentation & End User Documentation (Due 6:00 PM on November 1, 2023)

Each group must produce a recorded oral presentation of about 10 to 15 minutes in which they demonstrate their skill and explain the work they performed. The video should demonstrate the functionality of your Alexa skill and show how it responds to various queries. The video should give a brief overview of the design and implementation. The PM will upload a link to the uploaded **YouTube video and a brief end-user documentation** on the course Moodle **by 6:00 PM on Wednesday, November 1, 2023.**