Mission 1: Technology Potential at Turners Cars Auctions

This Mission is designed to support you to achieve the following learning outcomes:

- **Learning outcome 1** - Apply Agile software delivery and design thinking practices to contribute to the development of digital technology product solutions in specific contexts of practice.
- **Learning outcome 4** - Apply effective professional interpersonal and collaborative skills when working on digital technology product projects with internal and external stakeholders.

The Client

Turners Car Auctions is a market leader in the automotive industry in New Zealand, responsible for more than 10% of all used vehicle sales in the country. It has retained its original function as a vehicle auctioneer, operating in 19 branches nationwide, but has become increasingly dependent on a parallel role as a conventional used vehicle dealership. In support of that role, it has established in-house finance and vehicle insurance divisions that allow it to offer buyers a complete "one-stop shop" experience.

The Project Brief

Turners is currently undertaking a fairly major re-design of its motor vehicle insurance systems and processes, including an investigation of ways in which the introduction of new technologies can enhance the buyer experience. Here is some information about motor vehicle insurance [https://www.turners.co.nz/Cars/finance-insurance/car-insurance/]. In particular, the company's IT manager is interested in the potential of chatbots as a contributor to both operating efficiencies and customer satisfaction.

He explains: "Our after-sales support team responds to customers who have problems with their motor vehicles after they have bought them. At the moment, the after-sales team consists of seven members, and it is costing the business a lot of resource. I believe there are potential benefits to be

gained from using chatbots to take over some of the work that our after-sales support staff are currently doing, and am interested in exploring this idea further. I do, however, have two main concerns that I need to see satisfied:

- From a software development perspective, is the development of a motor vehicle insurance chatbot an economically viable proposition?
- From a user experience perspective, how can we best meet the needs of a motor vehicle insurance customer?

Your tasks in mission 1 are listed below. Mission 1 is undertaken by teams of two to four people.

1. By Friday 9.00 am of Week 2, create a new folder at **Microsoft Teams > Files > Submissions > Mission 1**. Name the folder with your and your partner's names. Upload all of your *individual and jointly prepared* work (screenshots, presentation slides, documents, or other files) to that folder.

2. At the Show and Tell next week, your team will jointly present both the Generic and Specialist Tasks it has completed and talk everyone through the key points and decisions in your email. This presentation should be designed to take around **5 minutes for each** team member – so, if you are in a 4-person team, you have up to 2**0 minutes** in total. The time limit will be strictly enforced. You can use PowerPoint slides, Sway, or Prezi to help with your presentation.

Specialist Tasks (Adv Dev Only)

1. Identify Stakeholders

Focus on the project to redesign the motor vehicle insurance purchasing experience. Identify a list of stakeholders you need to interview for the MV insurance UX redesign project. The following resource may help:

a. MANDATORY Stakeholder identification https://www.youtube.com/watch?v=gc55hPIFW8w (10 mins)

2. Build a Chatbot

As a way to test feasibility, based on the FAQ page (https://www.turners.co.nz/FAQs-Cars/), build a prototype chatbot that answers questions about Online Auctions (just the "Online Auctions" sections of the FAQ, not all FAQs on the page). The following resources may help:

a. MANDATORY Guide to design a chatbot https://landbot.io/blog/guide-to-conversational-design (20 mins)
b. MANDATORY How to design a chatbot https://medium.com/swlh/what-is-conversation-design-and-how-to-design-your-chatbot-3754f04ab1e7 (20 mins)
c. CHOOSE1
   i. Building a Chatbot with Watson https://developer.ibm.com/tutorials/create-your-first-assistant-powered-chatbot/ (2 hour)

ii. Building a Chatbot using Google Dataflow https://developers.google.com/learn/pathways/chatbots-dialogflow (2 hour)
iii. Building a Chatbot using Microsoft Azure https://stackify.com/create-azure-bot-service/ (2 hour)
iv. Building a Chatbot using AWS Lex https://aws.amazon.com/getting-started/hands-on/create-banking-bot-on-amazon-lex-v2-console/ (2 hours)

3. Integrate Chatbot

Create a simple HTML page and integrate the chatbot with the page using API. The following resources may help:

a. CHOOSE 1
   1. Integrating Watson Chatbot to web page https://cloud.ibm.com/docs/assistant?topic=assistant-deploy-web-chat (1 hour)
   2. Integrating Google Chatbot to web page https://cloud.google.com/dialogflow/es/docs/quick/integration (1 hour)
   3. Integrating Azure Chatbot to web page https://docs.microsoft.com/en-us/azure/bot-service/bot-service-channel-connect-webchat?view=azure-bot-service-4.0 (1 hour)
   4. Integrating AWS Chatbot to web page https://aws.amazon.com/blogs/machine-learning/greetings-visitor-engage-your-web-users-with-amazon-lex/ (1 hour)