12/02

Notes:

In the future if we have enough time, we could use Vicon motion capture for the chatbot to animate the exercises.

Tasks:

ID	Description	Status	Evidence
1	Consider best way to implement chatbot in Unity.		DialogFlowToUnity
2	Get exercise videos.		Exercises Folder
3	Play an exercise video in Unity test project.		PlayVideoTest
4	Implement a dialog into the DialogFlow chatbot.		DialogFlow Console
5	Expand Requirements Specification to include the mind-map from Term 1 Report.		RequirementsSpecification
6	Set up GitHub.		www.github.com/lewisbenking

19/02

Notes:

Phonemes combine Visemes. Visemes are the smallest representation of phonemes, e.g. "ba" / "da". Animating visemes means they are tiny animations but more realistic than just opening/closing mouth. Could look at how to include gestures with the character, e.g. turn and point at the exercise video when speaking. Could associate keywords with a playback of a gesture if possible.

Person inputs text/speech. Unity interprets and sends to chatbot API.
Chatbot interprets message. Sends JSON back. Unity interprets response and outputs to Person.

Tasks:

ID	Description	?	Evidence
1	Restructure folder hierarchy		Exercises Folder
2	Run through CodeLabs tutorials to improve understanding on creating chatbots. codelabs.developers.google.com/codelabs/		
3	Sign up for Mixamo		
4	Sign up for Adobe Fuse		
5	Install Adobe Fuse		
6	Create a PT character in Adobe Fuse		
7	Import character into Mixamo		
8	Give idle animation to character in Mixamo		
9	Download Mixamo character		
10	Research how to import character into Unity		ImportMixamoInUnity Document
11	Import character into Unity		
12	Create an animation so when the video plays, the PT character turns and points at the video.		Turn&PointAnimation Unity Project
13	Update the animation so when the video stops playing, the PT character returns to the Idle animation/position.		
14	Install Google Cloud SDK		PT-Bot Unity Project DialogFlowToUnity Document
15	Get gcloud Access Token*		DialogFlowToUnity Document
16	Create scripts in Unity to link to DialogFlow		PT-Bot Unity Project

Additional:

When video starts playing, have the PT character turn to their left and point at the video. When the video stops playing, turn the PT character to their right to return to the starting position.

ToDo in the future (not specific):
- Look for Lip-Syncing in Unity Asset Store.
- Research how to lip-sync with the character.
- * The gcloud access token expires after an hour, so need to find a way of getting a new token from a C# script.
- Find out how to give images/video in responses.
- Complete the chatbot in DialogFlow.
- Link the chatbot to Unity.
- Research how to include speech input / text input in Unity.
- Implement speech input / text input in Unity.
- Handle speech/text input and send to DialogFlow API.
- Handle responses from DialogFlow API.
- Animate character so mouth moves in sync with speech response from DialogFlow API.