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| **Project Title:** virtual gym trainer | |
| **Start Date:** 1/14/2020 | **End Date:** 05/2/2020 |
| **Team Members:** James Petitt | |
| **Project Sponsor:** Dr.Bekkering | |
| **Customer:** Gym, trainers | |
| **Users:** trainers, Athletes | |
| **Purpose (Problem or opportunity addressed by the project)**: Improper lifting form from either new or existing athletes. Improper weight lifting form can lead to serious injuries during workouts. | |
| **Goals and Objectives**: Able to show the proper form as well the improper form of a few lifts. | |
| **Schedule Information (Major milestones and deliverables)**:  Animation in Unity:  animation of the proper lift form -- Jan 24th,  the improper lift form animations – Jan 31st  Interface:  create an interface to be able to switch between the lifts – Feb 14th  Consult Gym trainer at Aero Fittness – March 6th  Apply changes/ recommendation and complete project – March 27th  Refine the project March 28th-Apr 17th  Make presentation | |
| **Financial Information (Cost estimate and budget information)**: creating It in unity and using other free software such as fuse and mixamo to create characters. | |
| **Approach:** use Unity to create the 3D environment, use Umotion to create the animation, and use visual studio to code in C# | |
| **Constraints:** The mimic of the proper and improper movements of the athlete | |
| **Assumptions:** That the user has the ability to mimic the correct action from the animations | |
| **Success Criteria:** able to show the proper lifting form and the improper lift form with in a 3D environment | |
| **Scope**: The design will be in Unity with programing in visual studio. Will use fuse and mixamo to create animations as well as the Unity asset Umotion | |
| **Risks and obstacles to success:** creating the animation through coding in C#, create an environment to react with user input to show the correct lifts with proper and improper forms | |
| **Project Priorities and degrees of freedom:** The trainer must show how to properly move the body to preform the lifts correctly. I have the freedom to show this how I want to. | |