

**College of Engineering**

**COMP 437/537 – Intelligent User Interfaces**

**Project Proposal**

**VIRTUAL WORKOUT**

**Spring 2023**

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**Github Link: https://github.com/oserifogullari18/comp437project.git**

**Abstract**

Daily workout has a high importance for physical and mental health of people. However, going to gym is too time consuming, expensive, and sometimes even ineffective because of the crowd. This project aims to provide a gym environment and workout motivation to people who has any reason not to go the gym. There will be different workout types for users such as yoga, plates, and lifting. Besides, it will guide users for the activities to prevent injuries because of the wrong actions. This project will be an application especially for iPad, that uses computer vision and augmented reality technologies. Users will put their devices on a table or on the ground, they will be able to set a background to feel themselves in a different place, and the application will understand their body position. The app will guide them for the moves, warn them if they are doing the move wrong and make a suggestion for fixing. For example, if a user is their whole body to lift a weight while working arms, the application will warn and suggest using a lower weight.

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1. Introduction
   1. Concept

The concept is a concise description of the project covering objectives, background, methodology, and the expected outcomes. In addition, include **a wireframe diagram of the expected output.** In this diagram, show the main functions of pages, and transitions between these activities. It is the most important part of the proposal as it builds the first impression. Even though it appears first, write it last because it is a summary of the proposal.

! In this section, please draw a [wireframe](https://www.experienceux.co.uk/faqs/what-is-wireframing/) of your application. You can use an online tool like Microsoft Whiteboard, or Marvel App, or you can choose to draw on a paper and upload the picture.

* 1. Objectives

Describe the expected outcomes of the project. This shows what you will do, for whom, and by when. When the project is completed, you will be able to evaluate it and determine whether the project succeeded or not in achieving its objectives.

* 1. Background

Well-documented description of the state-of-the-art (cite the references) and the problem to be addressed and why it is important. Use support information, statistics and/or earlier studies to make your point. This section should describe the significance, timeliness, and importance of the project.

1. S/T methodology and associated work plan

* 1. Methodology

Methodology is a plan of action for how the objectives will be achieved. You should give a thorough description of the overall approach, its relevance, effectiveness, and novelty.

* 1. Work Package Descriptions

Please write down your execution plan in detail according to following table. Your execution plan will be divided to 2-day units.

|  |  |  |
| --- | --- | --- |
| Days | Deliverable | Detailed Description |
| 2 |  |  |
| 4 |  |  |
| 6 |  |  |
| 8 |  |  |
| 10 |  |  |
| 12 |  |  |
| 14 |  |  |

* 1. Demonstration

Plan performance analysis measures and final demonstration of your project outcomes. Expected impacts of your project outcomes.

1. References

Give the list of references. All the references should be cited within the text of the proposal report.