# A SMARTPHONE-BASED APPLICATION FOR SPORTS SOCIETIES AND CLUBS

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## INTRODUCTION

Sport has been ingrained in our society for thousands of years and has become the root of many strong traditions within our nation. However, in a short amount of time, the COVID-19 pandemic has dramatically changed our fitness habits due to the need for social distancing.

Universities have a duty to support student wellbeing. The creation of a fitness application would aid this as not only would it promote keeping students active but allow social interact with other students all whilst observing social distancing. The aim of this project is to build an application that helps university students feel part of a larger sporting community and keeps them active.

## PROBLEM

The UK has been in and out of lockdown since March 2020, with many people being confined indoors and unable to access their usual method of exercise. For a combination of reasons, for instance not having the same access to at home facilities that others may, students form one of the most negatively affected groups of athletes. Students require a way of keeping fit during lockdown as well as interact with team members and have fun whilst working out.

The effectiveness of this application will be evaluated to understand whether this kind of system would be useful to athletes within the university. From this, the success of such an application in a university setting can be further understood.

## DESIGN

The smartphone-based application will:

- Host livestreams from various sporting clubs for members to access
- Contain a plethora of on-demand workout videos
- Offer various achievements for users to obtain while they workout and use the application - these can be seen on the user's profile
- Present a leaderboard for teams within the Athletic Union based on activities performed by the club and achievements that have been collected

When making the application design, HCI principles will be followed. The design will have aspects of Gestalt Principles [1]. For example, the use of common region in the menus will ensure that users will understand where to look to find their desired feature of the application. The application will also follow Shneiderman's 8 golden rules [2]. For example, it will ensure there is consistency in the design so the user can familiarise navigation routes, as well as supporting internal locus of control so the user feels in control of the system and, furthermore, in control of their fitness journey.

Younger smartphone users are impatient when it comes to navigating applications and want to see uncluttered screens where they can easily and directly interact with what they want to. Acknowledging that a student will be using the system in their hand, the application will have large click zones whilst minimising drop-down menu and small button use.

## METHOD

Initial designs for the application have and will continue to be created using paper. After collating the designs and determining the final product, this shall be created digitally. The graphics for the application will be designed using *Adobe Photoshop*. At this stage, all imagery and colouring will be established, ensuring that the application is visually appealing for the student demographic.

To create the prototype, *Invision* will be used to build the functionality of the application allowing for navigation. The prototype will be capable of providing a useful insight into the system's structure.

## FUTURE WORK

If the project is a success, the application could be adapted to satisfy a wider audience. An infrastructure capable accommodating multiple universities would be beneficial. Sports teams could not only use the application among fellow students at the institution but also compete with other university sports teams around the country.

**References:**

[1] D. Ripalda, A. Garido and C. Guevara, *Gestalt framework in the design of interfaces for mobile devices: Theoretical approach*, 2018 13th Iberian Conference on Information Systems and Technologies (CISTI), Caceres, Spain, 2018, pp. 1-4, doi: 10.23919/CISTI.2018.8399182.

[2] B. Shneiderman, C. Plaisant, M. Cohen, N. Elmqvist, N. Diakopoulos, *Designing the User Interface: Strategies for Effective Human-Computer Interaction,* 6th Edition, Hoboken, ISBN: 978-0134380384, Pearson, 30-04-2016