# CS39930 Web-based Major Project

# Business Analysis

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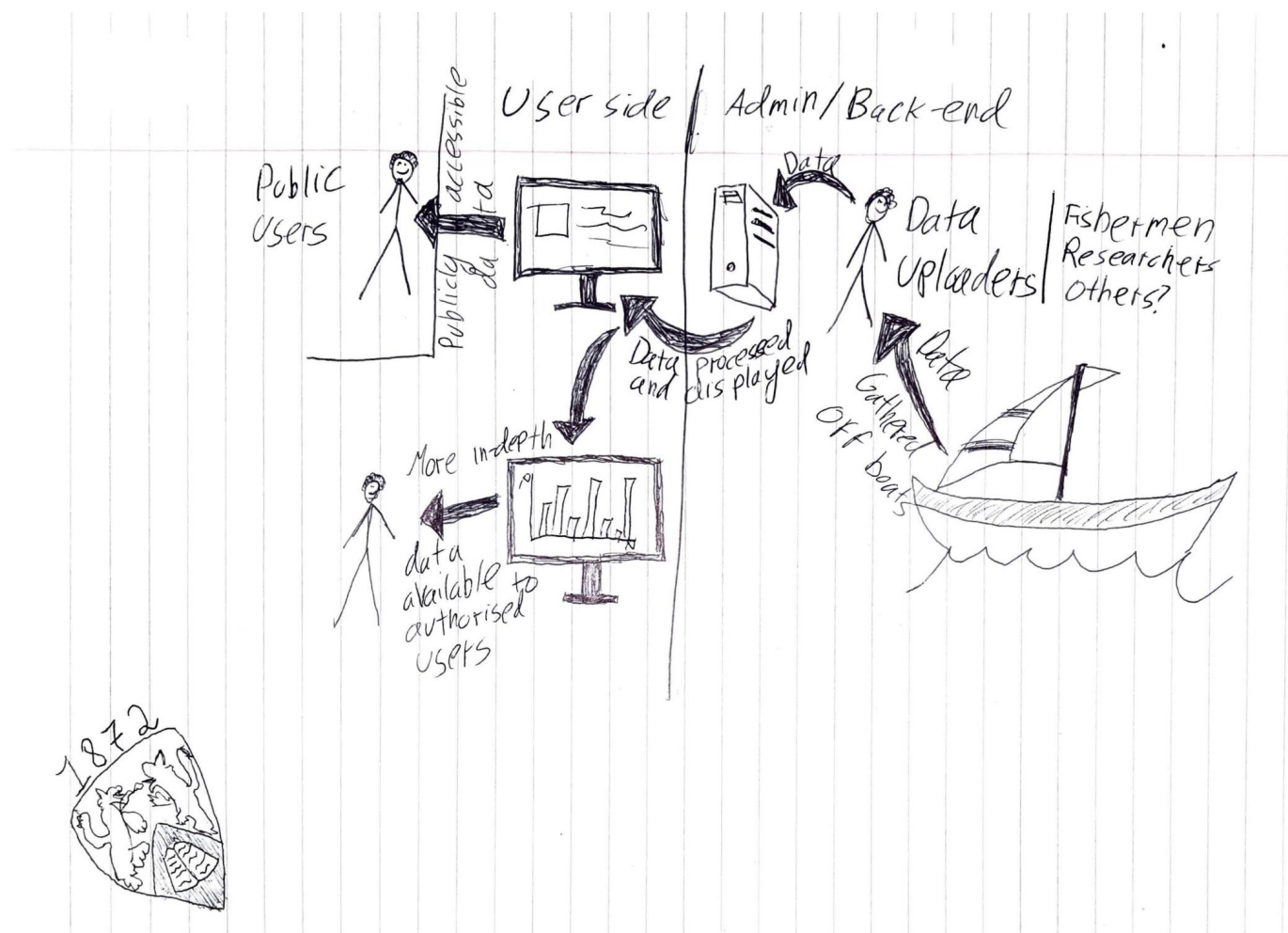
14/02/2020

# Introduction

The website is being requested by Bernie Tiddeman and the research team he is involved in. The research team is comprised of researchers from Aberystwyth University, Bangor University, and is sponsored by the Welsh Government, who have an input in the project.

The website will be used by the fishermen, and the research team to upload and manipulate data. The research team are also considering whether to open part of the website to the general public.

Data presented will be involve various information related to crustaceans such as crabs, their catch locations and others. The website will then allow the data to be collated and presented as graphs and potentially other type of information.
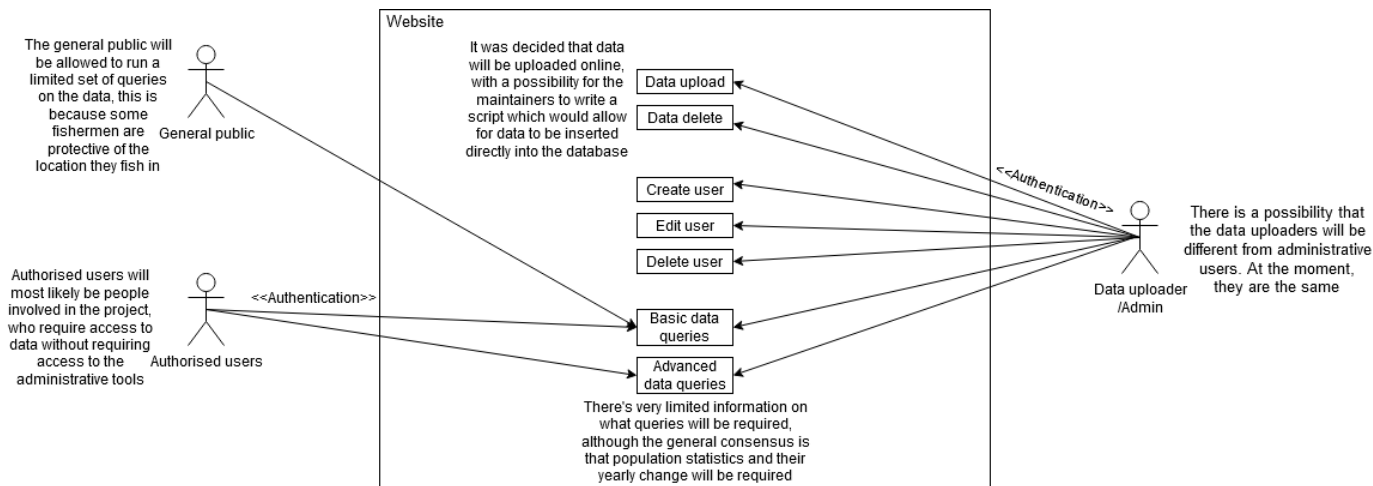
# Stakeholders



The rich picture above details the key "stakeholders" – people who will be accessing the system.

The most important people will be researchers and fishermen, who will be the primary users of the system. The secondary users will be the public, and financial sponsors, who are not mentioned as their direct role is unclear.

## Users and use cases



Above is the use case diagram, which represents the main users and website functions. As noted above, there is a possibility that administrative users and users with upload permissions will be separate. However, as of now there is no distinction between the two, therefore they are represented by a single actor. Administrators will have access to all data.

Authorised users would include financial sponsors, such as the Welsh Government, and possibly the EU Fisheries Fund, although the latter is debatable due to the current political situation in the country. Those agencies might use the data gathered for statistics, and to prevent overfishing.

Other authorised users would be various researchers and fishermen themselves, as it would help them monitor various population statistics.

Authorised users will be able to access most data, however, there was a mention of a permissions system, where certain users would be able to access only certain pieces of data – this needs to be discussed further.

The general public will have access to some queries; however, it is currently unclear what data will be made public.

## Related materials

There do not appear to be any similar websites publicly available, most of materials available are research papers and other similar scientific publications.

Additionally, there were a few MatLab examples, showing some mathematical examples of crab image processing.

I have come across one website which has some very vague similarities [1]. The website only shows manually taken images of different marine species, and provides some information, therefore it is closer to a gallery, and dissimilar to our project because it uses automatic imaging and processing.

[1] Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2020. The Animal Diversity Web (online). Accessed at https://animaldiversity.org.