*Project Title: SME Platform.*

# Aim:

To conduct engineering science research on the applicability of a new system dedicated for the health sector, which would aid small and medium-sized companies to find the opportunities which they are seeking to help them stay in the business. (The scope of this project was fundings).

# Implementation:

Followed an agile methodology, where the team gathered for daily scrum meetings to discuss the backlog and distribute tasks upon the members. The bag of words model provided the first steps in the natural language process pipeline used in the project. The project used a model revolving around TF-IDF (Term frequency – Inverse document frequency) to gather details extracted by a web crawler crawling the company website to establish its profile, and what opportunities are they looking for (topics), categorizing them into funding for equipment or research or just simply money. After, a matching algorithm is made to prioritize companies’ data saved in the system with opportunity providers data.

# Usage Notes:

Start by entering a company URL -- this is an example of a real one that you can use (**https://northamptonshirehealthcharity.co.uk/**) – then fetching the profile button (which will start analyzing the website data) -- **note in some cases the headless browser may not start or get stuck, please try multiple times if the trying counter goes beyond 30 attempts** -- after fetching stage 2 button will start which filters the fetched pages from the company website to look for only pages that are related to funding. Then lastly stage 3 button is active which will bring back potential topics of each page related to funding (not very accurate but shows potential). You can hover/touch the links list to view the topics and the matching page would become available.

The matching page you only need to start the matching by clicking the button and it will provide example of the prioritizing system, with the JSON file of the entire recommendations objects for download, with each object showing the priority (potentially being emailed to companies if the project was to be implemented in the real world).