Expression of Interest

Project Title	Mix and Match
Organisation or Supervisor	Capital One
Contact person (sponsor)	Shama Hamid
Contact email	shama.hamid@capitalone.com
Team Number:	12
Team Members	
Name	**Email Address**
Callum Davis	**psycd6@nottingham.ac.uk**
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Description of Team Skills (You must provide clear evidence of to what extent the team has the Highly Desirable and where possible the Desirable Skills detailed on the Original Project form)

Why We are Interested in Working with You

- *Our Inspiration by You*

Our team aspire to work with a business which regularly tackles data handling. It would be a valuable opportunity for us to solve a problem with you, learning more about your strategies along the way, hoping to expand our own. A team member has previously done work experience for Lloyds and was inspired to make to aid banking businesses in supporting their clients, which a project such as "Mix and Match" would ultimately lead to.

- *Where our Skills Inspire*

We have experience in third level programming languages, spanning up to eight years of Python coding, while everyone is comfortable with file handling, UI and writing programs used for **problem solving**, a key interest for one of our members in particular. Our team have had experience in **handling files and extracting data**, which **we would like to apply in a real-world situation.**

- *Where Our Project Experiences Inspire*

Some of our team members have had leadership roles in managing the pace of agile projects, being involved in a project with "Flloyds Bank". The most important part of which was communicating with the client and understanding their requirements, converting them into specifications, which allowed us to produce prototypes which matched their intentions.

Our Initial Analysis of the Problem

- *The Problem*

We interpret the requirement of automating the task of extracting skills from a CV, a task that currently requires manual labour. **Competitor systems demand manual labour,** converting descriptions to keywords that can be used for respective matching systems. Could this potentially be automated as well to save man-hours?

Our interpretation of the problem is that we will be required to **translate the natural language** where necessary in and **understand an unstructured data source**.

- *What We Require for a Solution*

We would be required to develop a system capable of **automating the task of extracting skills from a CV**. We would also need to **translate the natural language** and **understand an unstructured data source**.

We could utilise **volunteers to write CVs** as **unit test material** for an agile development process.

Additionally, we would potentially like to **interview a management role** to **gain insight on how they make the decisions**.

- *Our Suggestion for the Solution*

We believe we will need to develop and algorithm capable of **processing CVs of a particular format, extracting key information** that qualifies the publisher of the CV for a particular task, **mapping synonyms to roles.**

Taking on an **augmentation role**, the system may have a confirmation option for a team leader to confirm the decisions.

An alternative approach was suggested; **train an artificial intelligence system** that could **correlate the use of synonyms** and **match them to roles.**

How We Would Manage the Project

Our course of action would be dependent on the information we receive from our client, because it would suit us best to benefit from the requirements stage of agile development. We would like to receive more information on how the system currently works, gaining insight on the existing decision process of how teams are formed.

- *Our Time Plan*

We intend to follow an agile development cycle.

Requirements (1 Month) – We would like to initially gather requirements through interviews with you within the first month, as well as conducting surveys on CV writers if necessary.

Specification (1 Month) – We would prepare our specifications and prototypes for you to review, to ensure the project is on track while issues can be efficiently solved.

Design/Development (2 Months) – We can utilise two-week sprints in development to break down the process into manageable stages.

Release/Review (1 Month) – After passing unit tests, we would like to release the project with additional time to review. This would leave span for another month of maintenance and evolution before we can conclude the project.

- *Problems we Look at Addressing*

For some of us, we will be communicating with a real business client for the first time. We would like to gain a learning experience by using the skills we have practiced in our mock projects in our interviews and presentations, giving everyone in our team an experience in business that we can use in future projects.

Our team members have preferences in different programming languages. We would take this into consideration for the best language to write the system in. Our current plans are to use a language both suitable for the requirements of the system and universal to our team, Java.

(746 Words)

Date of Submission of EoI	15th of October 2020
Date of Pitch	20nd of October 2020
Notification of award	

Please make sure to submit a CV for each member of the team together with the EoI using the submission format available on Moodle.