AI Project Outline

## Scenario: **Financial Advice Recommendation**

**What is the business problem that needs solving?**

Our organization, as a financial planning firm, we review customers' financial details and provides them with recommendations with the aim of enhancing their position overtime. Currently, these recommendations are based solely on an individual advisers point of view and experience. This means that the customer may not receive the best recommendations as an adviser may miss a strategy. This represents a missed opportunity for clients however the challenge is to develop a sophisticated recommendation system that can provide personalized recommendations taking into account the vast amount of information from the client as well as ensuring the recommendations align with current legislation.

**How can AI solve this problem?**

AI systems can analyse large amounts of client information and use the information to run multiple projections simultaneously in the background to analyse the best potential outcome for the client. AI can include recommendations for strategies that are not immediately obvious to the financial adviser.

By analysing a client's financial information and goals, AI can provide personalised recommendations that align with their individual situation and objectives and not just a standard off the shelf solution.

AI can quickly have any new legislation and regulation updates added to the model. Given the vast amount of rules and how quickly they can change, it is extremely useful to have the AI model hold the most recent up to date information. This will ensure that all the recommended strategies comply with all current laws thereby reducing the risk of non compliance resulting in a loss to the client or consequently our business.

**What are tools/resources needed to implement the solution?**

* Fact finding tool – A database that can pull the information from the clients various financial institutions, along with the ability to take manual information including their long term goals and objectives.
* Machine learning platform – Require a system that can develop and train the algorithms such as TernsorFlow or PyTorch.
* Cloud Computing Services – Given the large amount of storage that will be required to house all the data and information, a scalable storage solution such as Google Cloud would be required. A cloud service such as this also has some built in models that may potentially be used to assist.
* A database that houses all the regulatory information and allows for real time updates.

**What ethical challenges might arise?**

* Data privacy and consent will be the biggest challenge. We would need to ensure that clients are aware of how their data will be used. There could be a risk that clients may not understand the implications of handing over their data leading to issues around informed consent. Things to consider would be what happens if a client no longer wants their data used in the model are we able to remove it?
* Advisers become lazy – Advisers may stop applying their human oversight on the AI recommendations which could lead to errors.

**What are some tactics for addressing these ethical challenges?**

* We would need to ensure there are robust security protocols in place to keep all data safe from access by unauthorized parties. Additionally we would need to have clear rules about the data that is used in the models including what data can be used (i.e. only including data where the data can’t be used to identify them) and how long the data can be stored and used for.
* To combat lazy advisers we would first need to be clear in the roll out the intention of the AI system. We would need to be clear that human oversight is critical and it is not intended to replace the adviser. Ongoing we could employ an additional AI system that can check whether adviser ultimate recommendations deviate from the AI output. It would provide a baseline to identify those advisers that have a higher percentage of reliance on AI and they can be provided with targeted counseling and training. Additionally ensuring all advisers keep up to date with their training to ensure they are able to pick up an errors as well as retain the ability to develop their own strategy recommendations without the assistance of AI.