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Approval

Date	Name and Signature
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Notes

Currently there are many applications out there that advertise real estate and various properties, for example daft.ie. Although these applications allow users to make informed decisions through a mixture of innovative product features and in-depth quarterly market analysis, as well as allowing users to select and filter different search results, there does not seem to be a system out there that accurately predicts the price of the property using various data points and by intaking user data to analyze the current price based on the data provided and predicting an accurate result of the price of the property in 12 months' time and beyond, unlike other applications out there, where prices are just assigned to objects. We believe that this is an important feature that customers should be aware of, to let them know the value of what they are purchasing as well as what the value will be in the future and this is the selling point of our product. By developing this application, we wish to expand on the existing products that are out there by implementing a prediction model using Al and machine learning algorithms or various API's as well as presenting them using a graphical interface..

The project will make use of some if not all the components we have learned thus far:

- Security (Authentication, Integrity, repudiation of data)
- Http Protocol
- o Python Programming and Django framework
- o Web Programming (HTML, CSS, jQuery, JS, any other revenant that will be added as we go progress)
- o If we manage to have sufficient time, we could migrate our product to the cloud (e.g., AWS)
- Optimization and speed

Definition

Background:	Given the current situation in the world and how it's affecting the economy, House and other property prices tend to fluctuate a lot putting customers at a disadvantage in not knowing what the value if of a property which is why we decided to make an application that will accurately predict prices of property using data no matter the situation.
Main Goal:	Main goal is to build a web application that advertises houses and uses a prediction model to predict accurate prices of property based on the value of the property that can be used by customers and real estate agents to make informed decisions Easily.
Desired Outcomes:	The desired outcome is to create an application that is easily accessible and beneficial to users. As well as advancing our skills while developing this. Making sure we deliver what is promised.

Constraints and Assumptions:	Time constraint, lack of group work experience, lack of resources working remotely. Assumption made would be that the data will need to be real and accurate as possible to make accurate predictions.		
Interfaces:	No other prior experience of developing a similar product before. Although some group members have experience of developing web applications.		
Project Approach:	In-house based on the different skill sets of group members and by assigning roles to each member while having meetings and updating the product owner regularly.		
Project Product Description:	The product is a web application that will advertise property and predict accurate prices using a prediction model. The web application will allow users to register and create an account to allow easy access of data and allow users to post on their profiles. Users can delete and edit their posts as they wish. Posts can be archived before deleting them. A range of products will be displayed on the home page for people to see without having to login or register. If we have time we can add additional features on the side that shows news posts and other announcements etc.		
	For example, Mr. Quinlan has a land of x acres and he wishes to sell it. He can post about it on the web application. The goal will be to use the data provided by Mr. Quinlan, and our pre-defines matrix in the backend and compare the prices with already existing objects to analyze what the value of the property is currently and what it will be in the future. This will be represented with a graphical user interface showing changes throughout. Example factors affecting the prices of the property will be inflation, deflation in the market and the various attributes of the property.		

Outline Business Case

Give a short, simple explanation of the justification of the project; the costs, benefits, dis-benefits, and major risks that can affect those.???

Key Stakeholders

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Jason Quinlan	Product Owner	
Hassan Tariq		
Killian O' Driscoll		
Kevin Mukuna		
Kieran O' Sullivan		
Kiu Man Yeung		

Project Objectives

	Target	Tolerance	
Scope	Functions include: Creating an account by registering Graphical user interface Using chart.js to represent charts for price ranges Posts visible on home page without having to login or register Accurate price predictions Allow users to delete and edit their posts Archive posts before deleting them		
Time	8 Weeks		
Cost	Time: 20 Hours a week Computing Power Storage: Cloud costs + databases to store property information		

Quality	Functional, Operational,	
,	Competitive	
Risks	Not finishing the development of the application due to time constraint	
Benefits	Provide the customer and real estate agent with better experience when searching for property and its value	Provide reliability to the customer as costs are accurate relative to the market

Project Management Team

Role	Reports to	Appointee	
Product owner	Self	Jason Quinlan	