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**Assessment Cover Page**

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| *Student Full Name* | Santhosh Shanmugasundaram |
| *Student Number* | Sba24100 |
| *Module Title* | Strategic Thinking |
| *Assessment Title* | Rent Predictor: A Machine Learning Approach to Forecast Dublin Home Rent |
| *Assessment Due Date* | 27th October 2024 |
| *Date of Submission* |  |

**Declaration**

By submitting this assessment, I confirm that I have read the CCT policy on academic misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source.

I declare it to be my own work and that all material from third parties has been appropriately referenced.

I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.

Rent Predictor: A Machine Learning Approach to Forecast Dublin Home Rent

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# Introduction

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Rental homes are an integral part of the housing ecosystem, providing an alternative to homeownership.

From an economic, social and political perspective, housing is currently the greatest challenge faced by Irish policymakers. The housing challenge is manifested in a lack of supply of owner-occupier and rental properties; prohibitively high house prices and rents; and a serious problem of homelessness.

A properly functioning housing market is an essential ingredient of a properly functioning economy and society. The challenge for policymakers is to ensure that there is an adequate supply and availability of suitable housing for those who want to buy and for those who want to rent at costs that are affordable. This situation does not exist now, so policymakers need to adjust the model to correct market failures. (IPOA and IPAV)

# Problem Definition

(Power et al.)

## Chapter 1.1

### Chapter 1.1.1.

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[NOTE: For the table of contents to function properly, you must use the correct headings for all your chapters and subchapters.

**Heading 1:** This is the main heading and should be employed for the primary title or chapter. For example: CHAPTER 1.

**Heading 2:** Use Heading 2 as a subheading. For instance: Chapter 1.1.

**Heading 3:** Heading 3 provides a more detailed breakdown, such as Chapter 1.1.1.

By adhering to this hierarchical structure, you ensure an organized and effective document outline, enhancing readability and navigation. However, you are not forced to use all 3 headings, usually heading 1 and 2 are sufficient.

The remainder of your text should be written using a normal font.]

# Problem Definition

# Details of Dataset

Residential Tenancies Board is an independent public body that regulates the private rented sector. It is responsible for multiple activities like tenancies registration, dispute resolution, investigation and sanction of landlords. It has also published numbers number of reports and data. (Citizensinformation.ie)

For the specific case study, I will use the dataset available in the below link.

<https://data.cso.ie/table/RIQ02>

# References

(IPOA and IPAV)

IPOA, and IPAV. *THE IRISH PRIVATE RENTAL MARKET*. IPAV.ie, June 2022.

Available at: <https://www.ipav.ie/sites/default/files/ipav_ipoa_jim_power_updated_report_june_2022.pdf>

(Power et al.)

Power, Jim , et al. *Housing Policy Needs to Adjust to Address Market Failures in the Rental Sector -New Study*. 22 May 2022.

Available at:  
<https://www.ipav.ie/sites/default/files/press_release_-_launch_18th_may_2022_ipav_ipoa.pdf>

(Citizensinformation.ie)

Citizensinformation.ie. “Residential Tenancies Board.” *Www.citizensinformation.ie*, 9 2023,

Available at:

<https://www.citizensinformation.ie/en/housing/renting-a-home/resolving-disputes/residential-tenancies-board/>