Group Name: A247   **Name of Student Presenting:**

Research Question –

Tutorial Presentation for Feedback

Date: 18/11/2024

University of
Hertfordshire **UH**

Dataset ID: **DS323 and melb_data.csv**

This dataset is interesting to us because it allows us to analyze the factors influencing property prices and sales trends, providing valuable insights for decision-making in real estate investments and market strategy.

Independent Variable: Rooms

This variable represents the number of rooms in a property. It is likely to have an effect on the dependent variable (e.g., price), as more rooms generally correlate with higher property values.

Datatype: Ordinal

The "Rooms" variable is ordinal because the number of rooms is inherently ordered (e.g., 1 room < 2 rooms < 3 rooms).

Dependent Variable: Price

This variable represents the sale price of the property, which is the outcome we are interested in understanding.

Datatype: Interval/Measurement Data

"Price" is interval data because it is continuous and measured on a scale, allowing for meaningful arithmetic comparisons (e.g., differences and ratios).

	Suburb	Address	Rooms	Type	Price	Method	SellerG	Date	Distance	Postcode	Bedroom2	Bathroom	Car	Landsize	BuildingAr	YearBuilt	CouncilAr	Lattitude	Longtitude	Regionnan	Propertycount
2	Abbotsford	85 Turner St	2	h	1480000	S	Biggin	########	2.5	3067	2	1	1	202			Yarra	-37.7996	144.9984	Northern I	4019
3	Abbotsford	25 Bloomburg St	2	h	1035000	S	Biggin	4/2/2016	2.5	3067	2	1	0	156	79	1900	Yarra	-37.8079	144.9934	Northern I	4019
4	Abbotsford	5 Charles St	3	h	1465000	SP	Biggin	4/3/2017	2.5	3067	3	2	0	134	150	1900	Yarra	-37.8093	144.9944	Northern I	4019
5	Abbotsford	40 Federation La	3	h	850000	PI	Biggin	4/3/2017	2.5	3067	3	2	1	94			Yarra	-37.7969	144.9969	Northern I	4019
6	Abbotsford	55a Park St	4	h	1600000	VB	Nelson	4/6/2016	2.5	3067	3	1	2	120	142	2014	Yarra	-37.8072	144.9941	Northern I	4019
7	Abbotsford	129 Charles St	2	h	941000	S	Jellis	7/5/2016	2.5	3067	2	1	0	181			Yarra	-37.8041	144.9953	Northern I	4019
8	Abbotsford	124 Yarra St	3	h	1876000	S	Nelson	7/5/2016	2.5	3067	4	2	0	245	210	1910	Yarra	-37.8024	144.9993	Northern I	4019
9	Abbotsford	98 Charles St	2	h	1636000	S	Nelson	########	2.5	3067	2	1	2	256	107	1890	Yarra	-37.806	144.9954	Northern I	4019
0	Abbotsford	6/241 Nicholson St	1	u	300000	S	Biggin	########	2.5	3067	1	1	1	0			Yarra	-37.8008	144.9973	Northern I	4019
1	Abbotsford	10 Valiant St	2	h	1097000	S	Biggin	########	2.5	3067	3	1	2	220	75	1900	Yarra	-37.801	144.9989	Northern I	4019
2	Abbotsford	411/8 Grosvenor St	2	u	700000	VB	Jellis	########	2.5	3067	2	2	1	0			Yarra	-37.811	145.0067	Northern I	4019
3	Abbotsford	40 Nicholson St	3	h	1350000	VB	Nelson	########	2.5	3067	3	2	2	214	190	2005	Yarra	-37.8085	144.9964	Northern I	4019
4	Abbotsford	123/56 Nicholson St	2	u	750000	S	Biggin	########	2.5	3067	2	2	1	0	94	2009	Yarra	-37.8078	144.9965	Northern I	4019
5	Abbotsford	45 William St	2	h	1172500	S	Biggin	13/08/201	2.5	3067	2	1	1	195			Yarra	-37.8084	144.9973	Northern I	4019
6	Abbotsford	7/20 Abbotsford St	1	u	441000	SP	Greg	14/05/201	2.5	3067	1	1	1	0			Yarra	-37.8016	144.9988	Northern I	4019

Research Question:

Is there a difference in the proportions of properties sold by auction (dependent nominal variable) between suburbs (independent nominal variable)?

Variables:
- **Independent Variable (IV): A nominal variable that separates different categories.**
- **Dependent Variable (DV): A nominal variable that is categorical in nature.**

Example:
- **Independent Variable (IV): "Property type" (nominal, e.g., House, Apartment)**
- **Dependent Variable (DV): "Presence of a pool" (nominal, e.g., Yes, No**

Hypotheses:

Null Hypothesis (H_0): There is no difference in the proportions of properties sold by auction between suburbs.

Alternative Hypothesis (H_1): There is a difference in the proportions of properties sold by auction between suburbs.