

Assignment (45%)

Instructions:

1. This assignment will be done individually.
2. Assignment Tasks:
 - Data Preparation, Exploration & Modeling using SAS Viya
 - Submission of assignment report with screenshots to Polymall
3. Module Assessment Weightage: 45%.

A property agent who specializes in the sale of resale flats wants to determine the significant factors contributing to the price of the resale flats in the last 10 years. Assuming all other external factors such as macro-economic factors are constant across the years, the property agent would like to identify factors that will affect how resale prices could change in the future based on the information within the dataset provided.

The **RESALE** data set contains 18 variables and over 18,000 observations. The variables in the data set are shown below with the appropriate roles and levels:

Column Name	Measurement Level	Description
Full Address	Nominal	Full address of resale flat sold
Storey Range	Nominal	Resale flat's floor range
Flat Model	Nominal	Resale flat model
Flat Type	Nominal	Resale flat type
Town	Nominal	Town
Town (group)	Nominal	Town (group)
Floor Area Sqm	Numeric	Floor Area Sqm
Latitude	Numeric	Latitude
Longitude	Numeric	Longitude
Lease Commence Date	Numeric	Lease Commence Date
Year-Month Sold	Numeric	Year-Month Sold
Nearest Hawker	Nominal	Nearest Hawker
Nearest MRT	Nominal	Nearest MRT
Nearest Primary School	Nominal	Nearest Primary School
Hawker Dist	Numeric	Distance between flat and nearest hawker
Mrt Dist	Numeric	Distance between flat and nearest MRT
School Dist	Numeric	Distance between flat and nearest school
Resale Price	Numeric	Resale Price (Target)

Use the appropriate modelling techniques that have been taught in the module and give your recommendations on the best performing model by relating back to the property agent's question.

Report Contents (Max 10 pages):

- Cover Page: Indicate your name and admin number in your report
- Print screen of each step:
 - including data cleaning & data transformation
 - modeling process, modeling techniques
 - model evaluation
- Give your recommendations based on the analyses.

Assessment Rubric (45%):

	Not Competent	Developing	Functional	Proficient	Advanced
Data Prep 10%	No evidence of data preparation	Unable to conduct proper data preparation	Able to conduct simple data preparation.	Able to conduct proper data preparation.	Able to conduct comprehensive data preparation.
Modelling 20%	No evidence of modelling techniques used	Unable to select correct modelling techniques and build models with basic test design and considerations	Able to select correct modelling techniques and build models with basic test design and considerations.	Able to select correct modelling techniques and build models with appropriate test design and considerations.	Able to select correct modelling techniques and build models with comprehensive test design and considerations.
Evaluation 10%	No evaluations or recommendations made	Provide inappropriate evaluation and recommendation.	Provide simple evaluation and recommendation.	Provide justified evaluation and recommendation.	Provide comprehensive evaluation and recommendation.
Report 5%	Report was not submitted	Report content is not well organized and hard to follow.	Report content is organized and easy to follow.	Report content is well-organized with ideas clearly.	Report content is well-organized with ideas clearly conveyed.