

## Fewer HDB resale flats sold in Q1; prices down 0.3%

*Fewer Housing Board flats changed hands in the first three months of this year compared with the last quarter of last year, with the number of transactions falling 14.2 per cent to 4,835. But compared with the same period at the start of last year, the number of transactions was still 8.5 per cent higher, according to figures released by the HDB yesterday.*

*In line with flash estimates earlier this month, resale prices of HDB flats fell by 0.3 per cent on a quarterly basis - the third straight quarter of decline. The lull for the first quarter was expected, given the festive Chinese New Year period, and observers expect resale volume to increase and prices to stay stable or increase slightly in the months ahead.*

Forecast for 2019

*ERA Realty key executive officer Eugene Lim said he expects resale volume this year to increase by 5 per cent, from 23,099 flats last year to more than 24,000 this year.*

*PropNex Realty chief executive Ismail Gafoor said "demand will be invigorated" over the next nine months as the HDB is offering only 15,000 new flats this year, the lowest number since 2015.*

*More resale flats may also be sold at higher prices, said OrangeTee & Tie research head Christine Sun, who noted that another 3,500 flats under the premium but now-defunct Design, Build and Sell Scheme, as well as almost 4,000 flats in popular mature estates like Bukit Merah, Queenstown and Ang Mo Kio, could go on the market this year.*

*Last year, 71 flats sold for \$1 million and above each, including four standard four-room units in Tiong Bahru.*

*"The higher price tags may have an uplifting effect on the overall price index," said Ms Sun, who anticipates upcoming changes next month that may allow buyers to use more of their Central Provident Fund monies to buy older flats to "increase the attractiveness of and spur demand for some older flats".*

(Adapted from: The Straits Time 27 April 2019)

Studies indicate that the data analytics industry contributes to nearly 1 billion Singaporean dollars to its economy each year. This is all thanks to Singapore's Smart Nation vision, to be an economically competitive global city.

GlobNex Realty is one of Singapore's biggest homegrown property agency with over 2,000 sales professionals. To ride on the growth in the area of data analytics, Mr Mohamed Aziz, the CEO of GlobNex Realty, formed a subsidiary, GlobNex Analytics, in 2018. The vision of the start-up is to offer smart alerts, predictive insights, ready data-driven decisions and other analytics tools to raise revenue critically.

You are a group of students from the Singapore Polytechnic, Diploma in Financial Informatics course, doing your internship at GlobNex Analytics. Your task is to analyse the publicly available "HDB Resale Prices" dataset from 1990 to 2017 with the goal of publishing quality reports to raise the profile of the new company. In your project, relevant secondary source of data may be used to enhance the effectiveness of the analysis.

Your group had a quick discussion with your immediate supervisor, Mr Joseph Wong, the Research Director of GlobNex Analytics. In summary, your group has been asked to produce a report with 3 major headlines which are based on 2 insights and 1 relevant predictive model that the group will come up with. In addition, the report should also contain the visualisation of the dataset by each individual group members. The final report must be submitted in the R Markdown format and ready for uploading onto the company's website. At the end of your project, your group must give a 20 minutes presentation, using powerpoint, to the Research Director, Mr Joseph Wong.

## GROUP SIZE

Each project group will consist of 4 to 6 students. In each group, a student will be selected as the Project Leader by the lecturer to lead the group.

## PRESENTATION

The presentation will be held from **Monday, 22 July 2019 to Friday, 26 July 2019 (Week 15)**.

## BLACKBOARD SUBMISSION REQUIREMENTS

**Group submission:** The final report in R Markdown format, together with the powerpoint presentation file, must be submitted to Blackboard under your own class codes. It must be done **before** the start of your presentation and in the following format:

Class\_Group\_Number.pptx (eg: DF13A03\_Group1.pptx)  
Class\_Group\_Number.Rmd (eg: DF13A03\_Group1.Rmd)

Ensure that the names and student admission numbers of all group members are clearly listed in both files.

**Individual submission:** The individual data visualisation files in R markdown format must be submitted to Blackboard under your own class codes. It must be done **before** the start of your presentation and in the following format:

Class\_Group\_Number\_Student\_Admission\_Number.Rmd (eg: DF13A03\_Group1\_p1234567.Rmd)  
Ensure the name and student admission number of the person submitting the Rmd file is clearly listed in the file.

### LATE SUBMISSION AND PENALTY

All late submission will be penalised by **10 marks per day** after the final presentation. Your group must not, for any reason, COPY, USE or MODIFY another group's work or data from the internet. No marks will be awarded for all involved. The group(s) will also face disciplinary action.

### PROJECT SCOPE AND MARKING SCHEME

Areas	Allocation	Key features and requirements	Marks
1. Insight 1 and Insight 2	Group	Good understanding of the dataset which can be used to develop a more effective connection to the relevant end users (Eg: end users can be consumers, companies, investors, etc)	30
2. Predictive Model	Group	The model is able to provide the best assessment of what will happen in the future.	20
3. Group report in R Markdown format	Group	Headlines are impactful. Able to turn the analysis in R into a high quality document and reproducible web report.	10
4. Group presentation	Group	Able to carry out a well-rehearsed and credible presentation to the RD of your company. Able to handle the Q&A with the SVP with knowledge and confidence.	10
5. Individual data visualisation and presentation	Individual	Present visuals (maximum 2 visuals) that are differentiating and able to reveal the data at several layers of details, from a broad overview to minute statistics. Able to carry out a well-rehearsed and credible presentation to the SVP of your company.	20
6. Individual report in R Markdown format	Individual	Able to turn the analysis in R into a high quality document and reproducible web report.	10
Total			100

**Rubrics – Group (Total 70%)**

<b>Rubrics on Key Features and Requirements</b>
<b>Group - Insight 1 and 2 [max 30 marks]</b> <ul style="list-style-type: none"><li>• Insights presented are appropriate, valid and comprehensive. [21-30]</li><li>• Insights presented are valid and complete. [15-20]</li><li>• Insights presented are only partially valid or complete. [10-14]</li><li>• Insights presented are not complete. [0-9]</li></ul>
<b>Group - Predictive Model [max 20 marks]</b> <ul style="list-style-type: none"><li>• Predictive Model present is appropriate, valid and comprehensive. [15-20]</li><li>• Predictive Model present is valid and complete. [10-14]</li><li>• Predictive Model present is only partially valid or complete. [5-9]</li><li>• Predictive Model present is not working. [0-4]</li></ul>
<b>Group – Headlines and Markdown Report [max 10 marks]</b> <ul style="list-style-type: none"><li>• Very well structured and organised report. Headlines are impactful. R Markdown document is clear and easy to follow. [9-10]</li><li>• Well structured and organised report. Headlines are impactful. R Markdown document is clear and easy to follow. [7-8]</li><li>• Not very well structured and organised report. Headlines are not very clear. R Markdown document is not clear and not easy to follow. [5 – 6]</li><li>• Not very well structured and organised report. Headlines are not clear. R Markdown document is not working. [0 – 4]</li></ul>
<b>Group - Presentation [max 10 marks]</b> <ul style="list-style-type: none"><li>• Very well structured and organised presentation. The use of language is excellent. Headlines, Insights and Predictive Model are impactful and interesting. [9-10]</li><li>• Very well structured and organised presentation. The use of language is clear. Headlines, Insights and Predictive Model can be followed easily. [7-8]</li><li>• Presentation is not organised. Headlines, Insights and Predictive Model cannot be followed easily. [5 – 6]</li><li>• Presentation is poorly organised. Headlines, Insights and Predictive Model are presented poorly. [0 – 4]</li></ul>

**Rubrics – Individual (Total 30%)**

<b>Rubrics on Key Features and Requirements</b>
<p><b>Individual - Data Visualisation and Presentation [max 20 marks]</b></p> <ul style="list-style-type: none"><li>• Very well structured visualisation. Visual is impactful and interesting. Very well structured and organised presentation. The use of language is excellent. Insights are impactful and interesting. [15-20]</li><li>• Well structured visualisation. Visual is impactful and interesting. Very well structured and organised presentation. The use of language is clear. Insights can be followed easily. [10-14]</li><li>• Visual is not impactful and not interesting. Presentation is not organised. Insights cannot be followed easily. [5 – 9]</li><li>• Visualisation is poorly organised. Visual is not working. Presentation is poorly organised. Insights are presented poorly organised [0 – 4]</li></ul>
<p><b>Individual - Report [max 10 marks]</b></p> <ul style="list-style-type: none"><li>• Very well structured and organised report. R Markdown document is clear and easy to follow. [9-10]</li><li>• Well structured and organised report. R Markdown document is clear and easy to follow. [7-8]</li><li>• Not very well structured and organised report. R Markdown document is not clear and not easy to follow. [5 – 6]</li><li>• Not very well structured and organised report. R Markdown document is not working. [0 – 4]</li></ul>

Set by: Mr Tai Fatt Weng  
Vetted by: Mr Joshua Tan