

GROUP 2 DAB 402-005 CAPSTONE PROJECT**ASSESSMENT 1****HOUSING AFFORDABILITY IN CANADA****QUESTIONS:****1. What is the problem (including context)?**

Answer: The topic of “**Housing affordability in Canada**” refers to the difficulties that many individuals and families have in getting suitable and affordable accommodation. This might involve concerns such as excessive housing costs, a shortage of suitable homes, and trouble obtaining housing finance owing to very high mortgage rates offered by various banks across Canada.

2. Why is this problem important?

Answer: Access to safe, stable, and cheap housing is a basic requirement and a significant driver of overall health and well-being, therefore housing affordability is critical. Unaffordable housing can lead to overpopulation, homelessness, and a variety of severe health and social impacts.

3. How are you going to solve the problem?

Answer: The answer to the housing affordability problem is dependent on the exact problem being addressed as well as the environment in which it is handled. In this project, we are attempting to highlight many reasons why individuals are unable to rent or buy a home, thus we will utilize visualization techniques to identify certain places in Canada where it is difficult to afford a home. Furthermore, potential remedies might include expanding the supply of affordable housing, improving access to finance, and enacting laws and initiatives to encourage affordable housing.

4. Which knowledge/skills/tech are needed for this solution?

Answer: The knowledge, skills, and technology required to address the challenge of housing affordability vary according on the solution sought. Housing policy, finance, urban planning, data analysis, and program assessment are all significant areas of competence. Here, we will employ data analysis to determine the true causes of individuals being unable to finance their own homes. For the answer to this challenge, we will utilize Python for Exploring Data Analysis and Tableau for the Visualization Dashboard.

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5. How does this solution compare to existing solutions, or to previous attempts to solve this problem?

Answer: To construct a fair comparison, evaluate criteria such as the effectiveness of existing solutions, their cost, and their practicality in the context of the present housing market. Furthermore, in order to give a good solution to this critical issue, we want to create a visualization dashboard comprised of Housing Affordability data, Bank Mortgage data, and data from the Canadian Stock Exchange. Furthermore, this dashboard will demonstrate how Canadian bank mortgage rates affect housing affordability in various Canadian cities, as well as their impact on the Canadian stock exchange market.

6. What are the metrics available to you?

Answer: Metrics for assessing the housing affordability problem might include the proportion of households paying a large proportion of their income on housing, the number of homeless individuals and families, the availability of inexpensive housing units, and affordable mortgage rates from banks.

7. How do you measure the success of your solution?

Answer: The success of a home affordability solution may be measured using the metrics indicated in the preceding question. The success of our solution is measured by the successful completion of our Dashboard, because our dashboard will graphically provide all of the alternative methods to eliminate such a delicate issue.

8. How are you evaluating your solution? And how feasible is it?

Answer: The practicality of a solution to the problem of housing affordability is determined by a variety of factors, including available resources, the political climate, and the willingness of key players to support the solution. The impact of the approach on eradicating the sensitive issue of individuals unable to afford to buy their own homes in Canada may be assessed.

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9. What is the estimated impact of this solution on all stakeholders?

Answer: The impact of a solution to the problem of housing affordability is determined by the exact remedy presented. However, it is expected to have a good influence on consumers who are unable to purchase a home due to high mortgage rates. Other stakeholders, including as the government, companies, banks, and the community, will be impacted by the solution since, in order to offer affordable housing to the people of Canada, all stakeholders must play their roles honestly.

10. Are there any ethical concerns?

Answer: Yes, there may be ethical difficulties with solutions to the housing affordability crisis. Concerns may be raised, for example, regarding the justice and equality of the allocation of affordable housing units, or about the effects of housing affordability solutions on disadvantaged groups.

11. What are the data sources?

Answer: For tackling the issue of home affordability in Canada, we used data from the Canadian government as well as available bank mortgage data.

12. What references did you use?

Answer: For this research, we collected data using Kaggle, the Canada Government's website, and open source data.

We can find the following websites for reference:

- Canada Mortgage and Housing Corporation (CMHC): <https://www.cmhc-schl.gc.ca/en/>
- Statistics Canada: <https://www.statcan.gc.ca/eng/start>
- Royal Bank of Canada (RBC): <https://www.rbc.com/economics/economic-reports/housing-trends-and-affordability.html>
- Canadian Real Estate Association (CREA): <https://www.crea.ca/>

These organizations give frequent updates and analysis on the housing market and affordability in Canada.