Graded Assessment on Statistics for Decision Making

Description

Coding Questions Instructions: The assessment will have two sections, concept and coding problems. The score that you get in the final assessment will be considered while calculating the final score.

To complete the coding test, please use the property dataset.

Please include your **name** in the file that you will be submitting.

These problems will test you on your ability to manipulate real world data and answer statistical questions. The data is on real estate prices in Australia. Use this data to test the following Hypothesis:

1. For the suburb Altona, it is postulated that a typical property sells for $800,000. Use the data at hand to test this assumption. Is the typical property price really $800,000 or has it increased? Use a significance level of 5%.

2. For the year 2016, is there any difference in prices of properties sold in the summer months vs winter months? Consider months from October till March as winter months and the rest as summer months. Use a significance level of 5%.

3. For the suburb Abbotsford, what is the probability that out of 10 properties sold, 3 will not have car parking? Use the column car in the dataset. Round off your answer to 3 decimal places.

4. In the suburb Abbotsford, what are the chances of finding a property with 3 rooms? Round your answer to 3 decimal places.

5. In the suburb Abbotsford, what are the chances of finding a property with 2 bathrooms? Round your answer to 3 decimal places.

Final Assessment Grading Rubric:

1. Required deliverables – a Jupyter notebook dedicated to the solution of each question; the inferences, if applicable, are to be included in the respective sheets.

2. Student facing and faculty rubrics – Total of 2 points per question.

Submission Instructions:

To submit your assignment, please follow these guidelines:

- Ensure that your assignment is fully completed.

- Push your assignment to a GitHub repository.

- Share the repository link by including it in a text, Word, or PDF file format.

Submit the file/text containing the repository link via Vlearn.