**Purpose of Assignment**

This assignment provided students with practice in understanding the relationship of averages and standard deviation to make an informed business decision about the gross income performance of each movie genre. Students will learn to implement the use of these statistical measures for better business decision-making.

**Assignment Steps**

**Refer** to Attached Document Mini-Project Movie Data Set

**Analyze** and **write** a report summarizing this data. This report should include answers to the following questions:

1. Calculate the summary measures (the mean, standard deviation, five-number summary, and interquartile range) of the total gross income for each movie genre.
2. Which genre had greater variability in total gross income?  Explain why.
3. Draw a box-and-whisker plot of a movie's length of time (minutes) by genre. Are there any differences in movie lengths when compared across genres? Are there any outliers?

**Use** the mean movie gross income for each genre to compare the movie opening gross income.

**Choose** an appropriate statistical measure to compare the consistency of movie gross income.

**Make** the calculations and **write** a 700-word report comparing the total movie gross income and the consistency of movie opening gross by genre.

**Format** your assignment consistent with APA guidelines.

**GRADING GUIDELINES**

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| **Content** |
| Referred to the Mini-Project Movie Data Set to analyze and write a report summarizing those data.  |
| Calculated the summary measures (the mean, standard deviation, five-number summary, and interquartile range) of the total gross income for each movie genre. |
| Explained which genre had greater variability in total gross income. |
| Drew a box-and-whisker plot of a movie’s length of time (minutes) by genre. |
| Used the mean movie gross income for each genre to compare the movie opening gross income.  |
| Chose an appropriate statistical measure to compare the consistency of movie gross income.  |
| Report is 700 words in length. |
| **Organization** |
| The tone is appropriate to the content and assignment. |
| The introduction provides a sufficient background on the topic and previews major points. |
| Paragraph transitions are present, logical, and maintain the flow throughout the paper. |
| The conclusion is logical, flows from the body of the paper, and reviews the major points. |
| **Mechanics** |
| The paper—including tables and graphs, headings, title page, and reference page—is consistent with APA formatting guidelines and meets course-level requirements. |
| Intellectual property is recognized with in-text citations and a reference page. |
| Sentences are complete, clear, and concise. |
| Rules of grammar and usage are followed including spelling and punctuation. |