“Feel the Beat” Formal Lab Report

You will **TYPE A FORMAL LAB REPORT**: Include all information below in a type-written lab report following the format given.

All words in **BOLD CAPITAL LETTERS** should appear on your lab report in the same format as section headings. Words in *italics* are used as a guide as to what you should write.

**TITLE**  
*(centered on top of page)*

**PROBLEM**  
Identify the question you will investigate. The problem should be written as a question and will include the IV (Independent Variable) and DV (Dependent Variable).

**HYPOTHESIS**  
Predict, based on your experiences, how the IV will affect the DV. Should be written as If ... then... statement.

**INDEPENDENT VARIABLE**  
Identify the independent variable.

**DEPENDENT VARIABLE**  
Identify the dependent variable.

**CONTROLLED VARIABLES (Constants)**  
Identify at least five variables that you controlled (kept constant).

**CONTROL GROUP**  
Identify the control group in your experiment that you compared the experimental group to.

**MATERIALS**  
- List all the materials needed for your experiment.
- Include the amount needed for each item.
- Should be written in bulleted or numbered sequence.

**PROCEDURE**  
- Show the procedure you designed to collect data to answer your research question.
- Should be written in numbered sequence.

**DATA TABLE**  
Attach the data table that recorded the data from your experiment. Be sure to have proper title, column headings and units, etc. as shown in the data table rubric.
“Feel the Beat” Formal Lab Report

GRAPH
Attach the bar graph that will help you make sense of your data. Be sure to have proper column heading and units, title, etc. as shown in the graph rubric.

CALCULATIONS
Attach a sheet with calculations. Analyze the data. You have collected pulse rate data for several trials. This is called “raw data”. Average the data that will help you answer your experimental question (resting pulse and activity pulse for each activity). Show each calculation and explain how you made that calculation and why.

CONCLUSION
What conclusion can be made about the effect of different activities on pulse rate? Did the data support/not support the hypothesis? Discuss the data that was obtained telling what the average was for each activity and how it compares to the resting heart rate for that activity, and how it supports or does not support the hypothesis. The conclusion should be impersonal, i.e. do not use I, we, my, our, etc. in the conclusion. Example: instead of “My data supports my hypothesis” use “The data supports the hypothesis.” Was there an activity that increased heart rate more than others? Discuss this.

SOURCES OF ERROR
Think about the data you have collected. Do the data for each trial seem generally consistent? If not, did you need to repeat any trials to correct any errors?

VALIDITY
Discuss the validity of the data and your experimental design. Mention possible sources of error. Discuss how improvement could be made to the experiment.

APPLICATION TO REAL WORLD
Discuss the findings of your results and relate them to real life situations.