PROJECT PROPOSAL

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Group Name: Rao-Sharma (Group 3)

Project Name: Database for Scientific Experiments - DataSciEx

Project Description: An application for easy creation and statistical analysis of experiments. It allows users to create a new experiment with the desired dependant variables and independent variables in a step by step approach. It then allows the user to enter the data they have collected and conduct a set of standard statistical tests with the required degree of freedom (error).

Users: Students
        Teachers
        Academics

Use Cases:

1. Add an experiment
    a. Add number of independent variables.
    b. Add number of dependent variables.
    c. Add desired number of participants in the experiment.
    d. Add number of experimenters and assistants.

2. Delete an experiment

3. Modify an experiment
    a. Remove a participant
    b. Modify a participant
    c. Modify number of experimenters and assistants

4. Conduct statistical analysis on the data collected
    a. t-test
    b. f-test
    c. Chi-squared test
    d. One-way ANOVA
    e. Two-way ANOVA

5. Search through all conducted experiments for successful and unsuccessful outcomes.

6. Look through the data collected for patterns.

7. Graph data from database.

Choice of Database: MySQL (Relational Database)

Software: Java. No machine restrictions.