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Criterion A – Planning

Problem Statement

Perry Barlien, a director of the robotics club, is not satisfied by poorly organized way to keep track of the scores for the robotics competitions within the school.

Description of Scenario

In International School of Prague, students attend robotics club and Mr. Barlien organizes small competitions, within the school, in order to be fully prepared for international competitions. For the international competitions, there is an online program, which is provided by "First Tech Challenge", for recording the scores of teams, which take part in the competition from all around the world. Currently Mr. Barlien uses spreadsheets to record the scores, but he needs a program, where he can input scores for different tasks and periods, for penalties and that would be able to rank the teams in relation to their name and the amount of points.

Rationale for proposed product

For the past 4 years it took a great deal of time to calculate the final scores for Mr. Barlien. For the last time when the competition was held it took judges approximately 30 minutes to calculate the final scores. Hence, this unpleasant wait time would be eliminated. Also, Mr. Barlien stated that it would be much more comfortable to have a well-designed program, where he can input numbers and the program would do the sort of needed functions by itself. For example, rank the teams from highest to lowest.[1] *The main purpose of having this program is to make the process of inputting the scores more comfortable, make them organized and to save time of calculating the scores.*

Success Criteria for Product

Tab 1

Mr. Barlien asked for the program to include 4 calculating functions[2]

- 4 major labels – Indicating the names for different scores
- 5 minor labels – Stating what the text field stays for
- 18 text fields
- ❖ The input and output of the scores
- 5 check boxes
- ❖ The kind of flag

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[1] Interview #1, Appendix #1, question 12

[2] Interview #2, Appendix #1, question 2

- ❖ Pendulum
- ❖ Hanging

Tab 2

User can input scores for different tasks for each team. The program calculates the sum by itself

- Table
  - 6 columns
  - 30 rows
    - Table is able to take in and work with numbers for:
- ❖ Team Name
- ❖ Scores for Period 1
- ❖ Scores for Period 2
- ❖ Scores for Period 3
- ❖ Penalties
- ❖ Sum

Tab 3

- Table
  - 4 columns
  - 30 rows
    - Ranks teams for each year
- ❖ Team Name
- ❖ Amount of scores for each year

General Help

Brief description of how the program functions