

# Criterion A

Word Count : 1857

**Problem Statement:** The house program at ISB does not have a standardized way and form of inputting, and calculating house points.

**Description of Scenario:** The ISB house system currently has a formula that they loosely follow to calculate house points. However, there are so many people contributing to the calculations of the house points that it is hard to keep track of overlap and double input. In addition, when we are intaking participation points it is a tedious task to find the person and allocate the point to the correct person and house. Thus, the program or solution that I will develop will also eliminate for a standby person who tracks house participation during house events, as the program should automatically be able to track participation by inputting a certain value.

**Rational :** The solution that will be created should enable Mr Bowman, my contact person, and the point masters of our house council to calculate house points with defined protocol with close to eliminate human error. The language that will be use to create the solution will be JAVA as this was the language taught in the ISB IB computer science syllabus. The program should be GUI based, where the interface should be simple and intuitive for the end user it was designed for. However, Mr Bowman would also like to manually enter some past scores, and edit some data incase of any mis-entries to the data. This being said, a computer solution of this scale should be able to handle all these calculations and tracking of data more efficiently than manually inputting data into a spreadsheet. Thus,the power of java will allow me to create a proprietary way of doing this that could last for generations of the house systems existence.

## **Success Criteria:**

- Users have ability to input:
  - First and Last name of a student
  - Student ID
  - Specific house point allocations
  - Manual Data entry including: time period for which house points have been allocated, which house, and what category
- Usrs will be able to view:
  - Current winning house
  - The number of points each house has in total

- And the current standing of the house points
  - And a table of each entry whether manually or through the app.
- App should be able to:
  - Take in student id or name and allocate points to their respective houses whether participation points or achievement points
  - Calculate house ranks
  - And total house points for each house
  - Points and standing for particular house “quarters”
- Usability features include:
  - 3 Tabbed panes
  - Radio buttons for easy selection
  - Text Fields for inputting different elements that can't be predicted
  - Instantaneous result of the input
  - Toggling for specific data so that there's no redundancy

**Prototype:**



## HOUSE POINT CALCULATION APP

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Student Data:   Student Name  
 Student ID

Event:

Point Category:  
 Achievement  Partcipation

Result:

