

## Criterion B

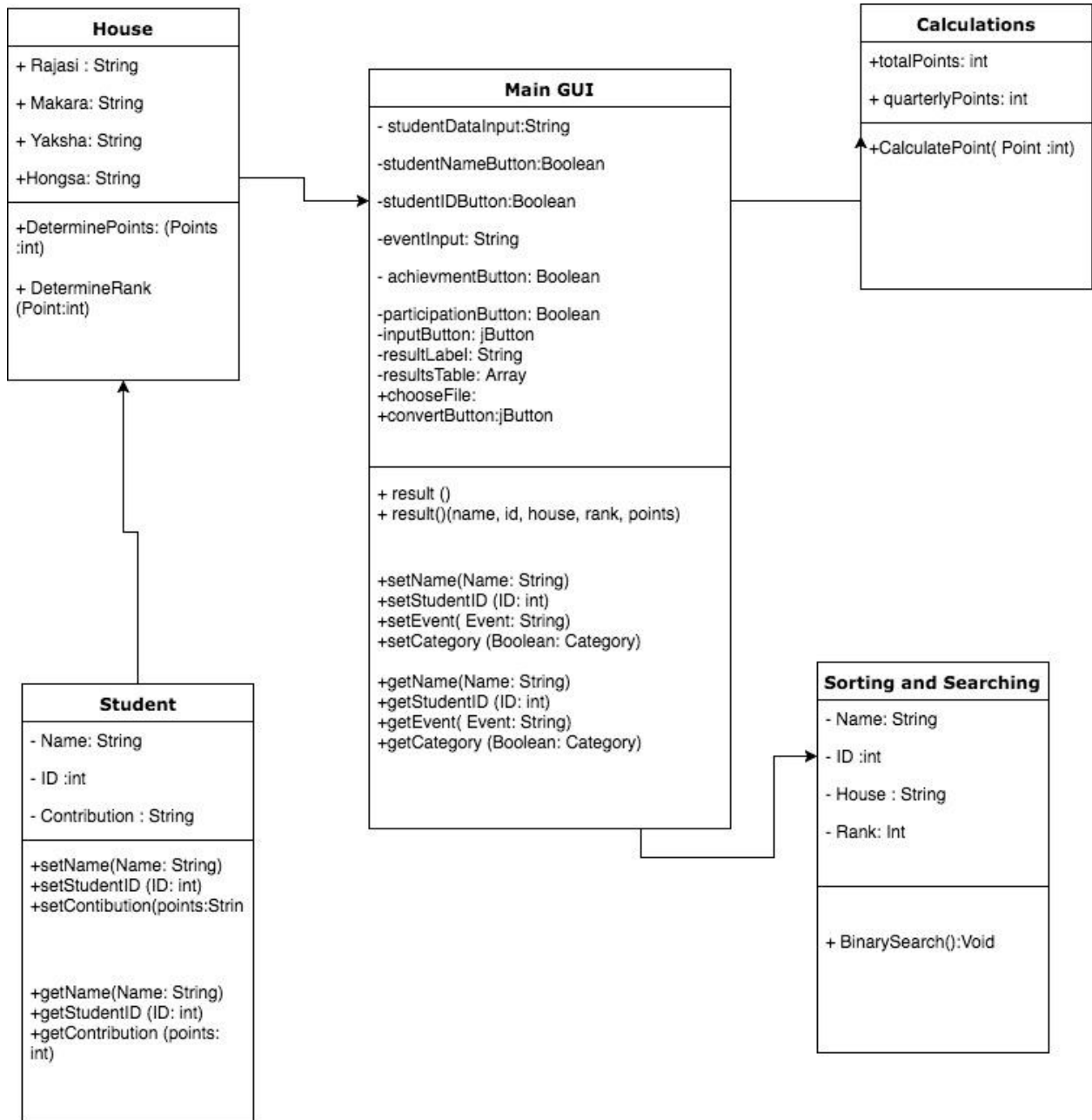
### Input:

<u>Input</u>	<u>Data Type</u>	<u>Example</u>
Student ID	Int	"18513"
Student Name	String	"Nimmit Kunkudatharn"
Student Data	Boolean	"Student Name"-False "Student ID"-True
Event	String	"Amazing Race"
Point Category	Boolean	"Achievement"-False "Participation" -Ture

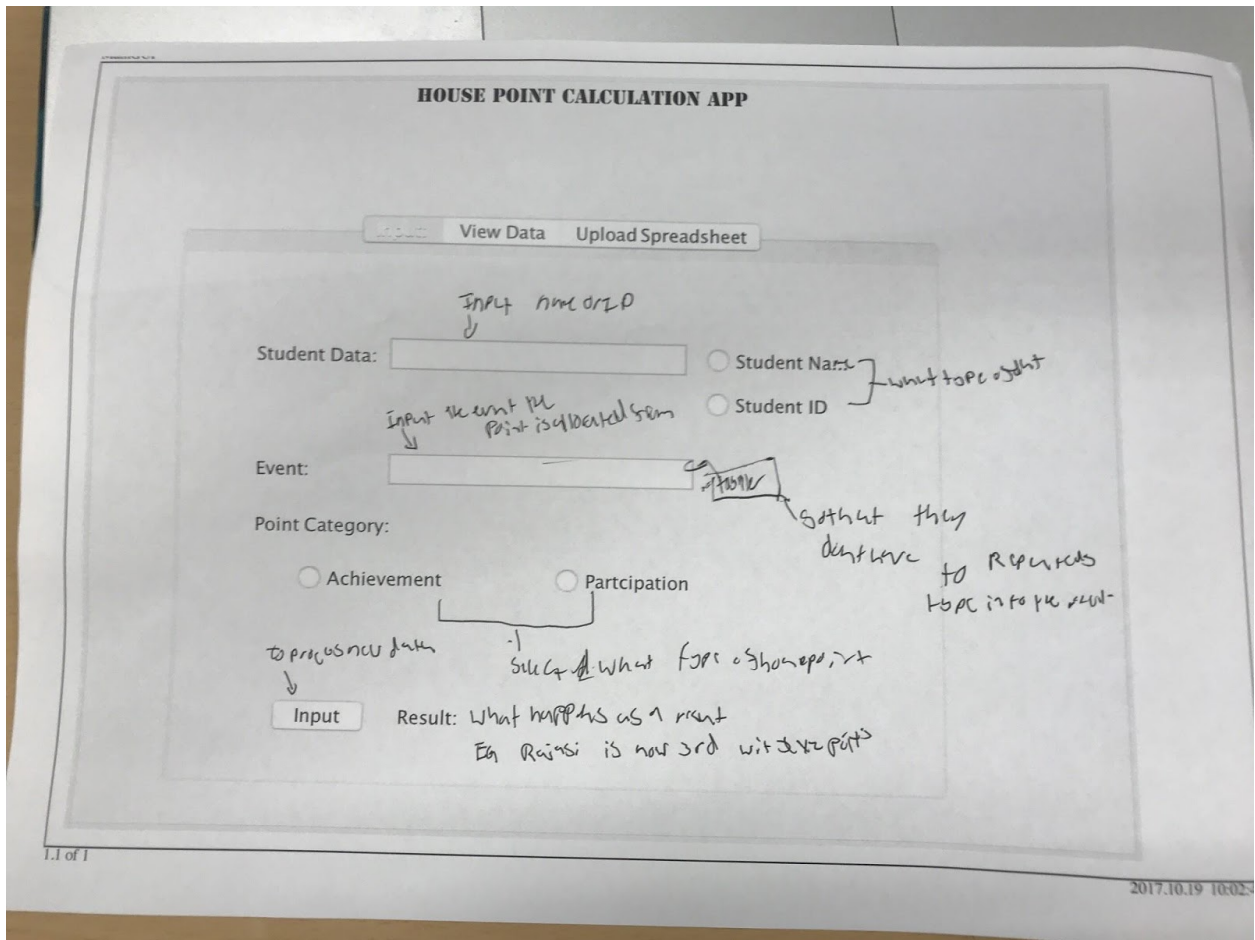
### Output:

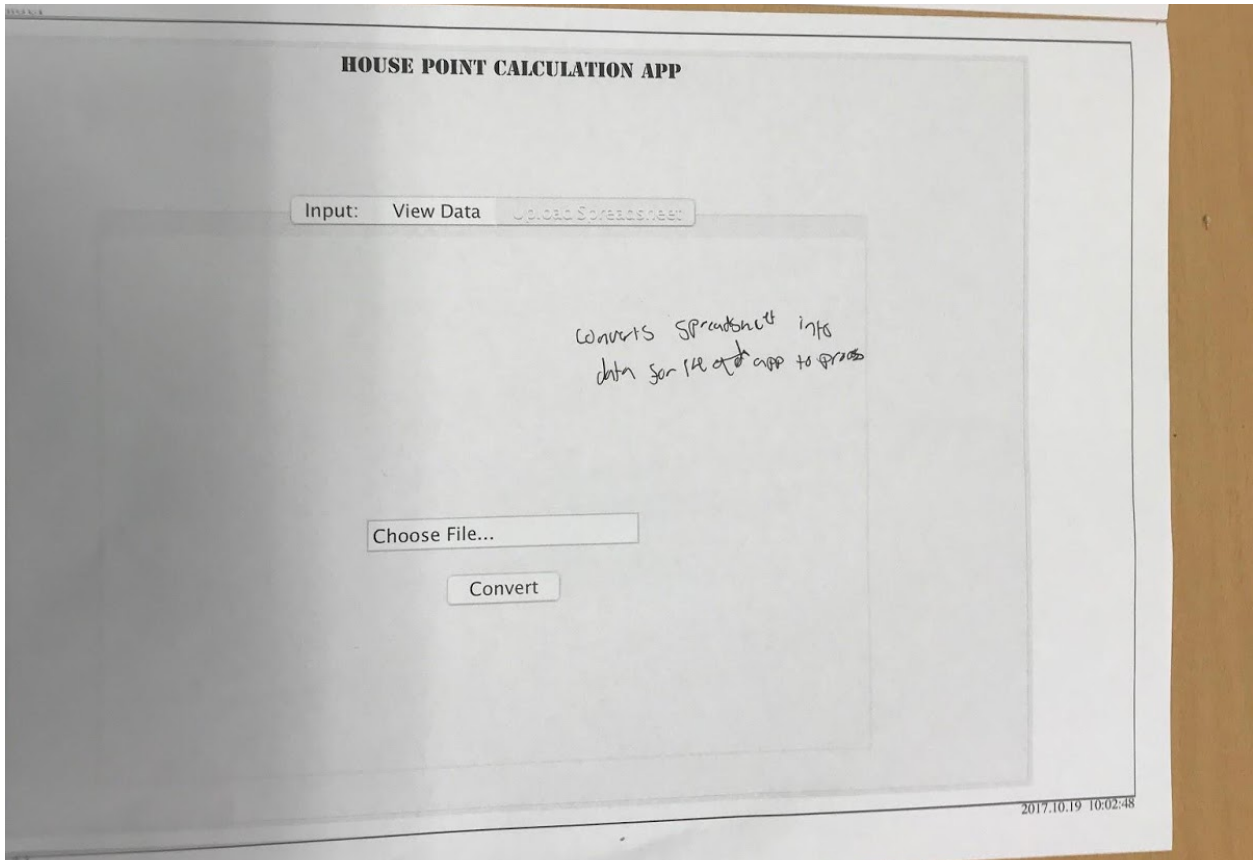
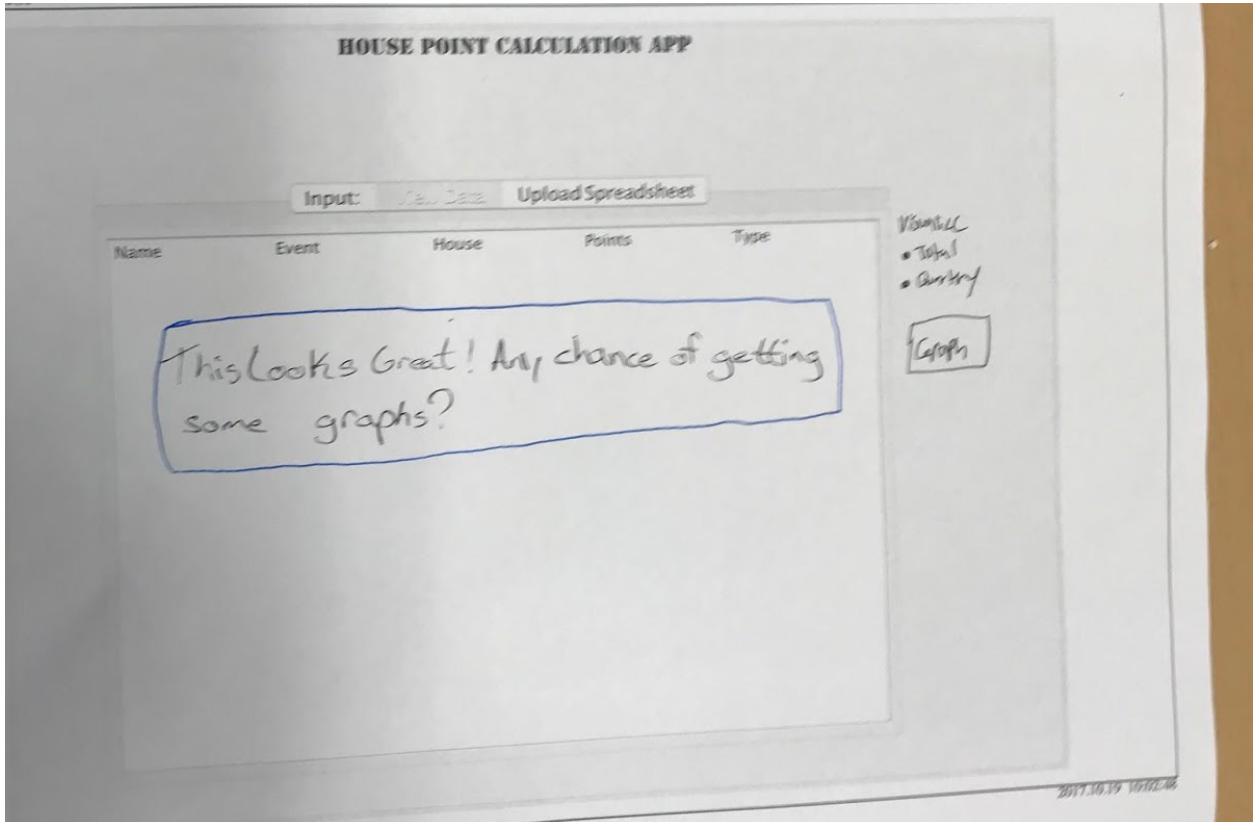
<u>Output</u>	<u>Data Type</u>	<u>Example</u>
Result	String Array	"Rajasi is the winning house with 45 points"
ID	int	18513
Points	Int	28
Type	String	"Achievement"
Event	String	"Amazing Race"
Name	String	"Nimmit Kunkudatharn"

# UML Diagram



# Prototyping Process:





# Chronological Development Plan

## #1 Calculating House points (2 weeks)

- Get the number of participants from each house
- Use that number as the number of participants for that house event
- Calculate the participation points of each house for it using this formula:  $(\text{Points} \times 25) / \text{Total \# of Participants}$  for participation points
- Calculate the achievement points of each house for it using this scheme: Number of Points (1st: 10, 2nd: 5, 3rd: 2) IASAS medals are worth 2 points a piece.
- All points acquired by each house will be cumulated quarterly or annually

Pseudo Code for calculations//not in word count because pseudocode is not inclusive

```
If ( participation= true){
    Get house
    Get No of Participators
    Int PHouseXEventY= (Points*25)/Total # of Participants)
    PHouseXEventY+totalHousePoints= Total HousePoints
    RetrunHousePoints
a
Else{
    Get house
    Get EventRank
    If (Rank=1)
    {AHouseXEventY= 10}
    If (Rank=2)
    {AHouseXEventY= 5}
    If (Rank=3)
    {AHouseXEventY= 2}
    If (IASAS Medal)
    {AHouseXEventY= 2*NoOfMedalEarnerInHouse}
    else
    {AHouseXEventY= 0}
AHouseXEventY+totalHousePoints= Total HousePoints
    RetrunHousePoints
}
```

## #2 Display House Points (1 week)

- Determine Specific Quarter or annum
- Graph It

```
DeterminePointCumalationPeriod()
If (Quarterly){
    DetermineWhichQuarter
    DisplayGraphForthatQuarter
}
Else{
    DisplayCumalativeHousePoints
}
```

## #3 Convert Spreadsheets (1 week)

- Use Java Libraries to create CSV file
- Use rely on inputed data and passing it to a variable

```
//save to CSV file
String filepath = eventTF.getText() + ".csv";
try {
    FileWriter fw = new FileWriter(filepath, true);
    //BufferedWriter bw = new BufferedWriter(fw);
    PrintWriter pw = new PrintWriter(fw);
    if (!titlesOnce) {
        pw.println("Name, ID, Event, House, Points, Category");
        titlesOnce = true;
    }
    for (int i = 0; i < counter; i++) {
        pw.println( inputName + ","
            + inputID + ","
            + studentArrayList.get(i).getEvent() + ","
            + selectedHouse + "," + pointsEarned + "," + category
        );
        pw.flush();
        pw.close();
    }
} catch (Exception E) {
```

## #4 Final Program (2 Weeks)

- Complete program
- Construct necessary algorithms
- Integrate algorithms for optimal cohesion
- Testing
- Optimize user experience

#5 Final Testing(2-3 weeks)

- End user tests final program

## Testing Plan

Input	Normal	Border	Abnormal	Extreme
Name	Nimmit Kunkudatharn	First Name like Nimmit  No name input  <i>first names are ok, but no name results in a result in a re-entry if student id is not inputed</i>	Not english characters like ऋ  English  <i>Warning message and not taken in</i>	Very long name 30+characters  <i>No limit on what allowed here.</i>
Student ID	18513	1000-3000  No number input  <i>Only allow numbers from 1000-3000 , if not give warning message and allow for re entry if name is not inputed</i>	Characters that are not numbers like V  String input of the number : "Zero"  <i>In all cases re entry is required.</i>	Numbers less than 4 digits and exceeding 5 digits  <i>Do not accept numbers and allow for re-entry</i>

Event	"Event"	String input : "amazing race"  Allow for string inputs	n/a Because I don't think they could be any abnormal values in the way that events are named	More than 50 Characters for an event name  <i>Prompt User to Condense event name</i>
Participation/achievement	Boolean: True/False	<i>n/a Because its either or which is determined by two radio buttons</i>	If left unselected  If two are selected  <i>In all cases a warning message will be displayed, and user must select one, also users would only be able to select one of the radio buttons in that group</i>	n/a
What was a achieved	Rank 1	n/a Because this is inputted by radio buttons	If left unselected  <i>In all cases a warning message will be displayed, and user must select one, also users would only be able to select one of the radio buttons in that group</i>	n/a