Criteria B

Input & Output

Input	Data Type	Example
Student Name	String	"Michael Jack"
Nick Name	String	"Jack"
Gender	String	"Male"
startDate	int	"03 05 2017"
endDate	int	"04 24 3017"
currentStat	String	"Finished"
Nationality	String	"America"
Recommend	String	"John Smith"
etc...		

This is the table which uses example to show which inputs is categorized in which data type.

Class Diagram

Class Diagram cannot be displayed due to the insufficient space.
UML diagram is in Documentation file of final submission folder.

Chronological Development

1) Complete fundamental functions (2 weeks)

   - Tables are properly displaying the items (column, row)
     - When "Add to Table" is pressed, inputs in text field will be added at selected row on the table, which is displayed in combo box.
   - Sorting functions (by letter / by number)
     - When the client pressed the button, the items in the tables will be sorted.
   - Searching functions (by letter / by number | selection sort / binary sort)
   - Update button
     - When it's pressed, modifications on "display Table 2" will be applied on the 1st table.
   - Combo Box properly displays columns.
     - Displayed item indicates the row

   Note: All classes will be program along with the GUIs.

2) Delete any inefficient or unnecessary elements (1 week)

   - Add any functions that demanded by the client.
   - Delete any unnecessary functions.

3) Add the sub-functions (1 week)

   - Another GUI pop-up when particular JButton is pressed
     - Help button, preview button, add column page GUI
     - Help button: New window explains the function of the each button.
     - Add column button: New window asks the client to add new column or not.
     - Preview button: New window which only shows the table (non-editable).

4) Detect errors and detect any holes which causes an error (few days)

   - Add the codes that prevents the errors.
     - Example: The client can input only numbers at given text field.
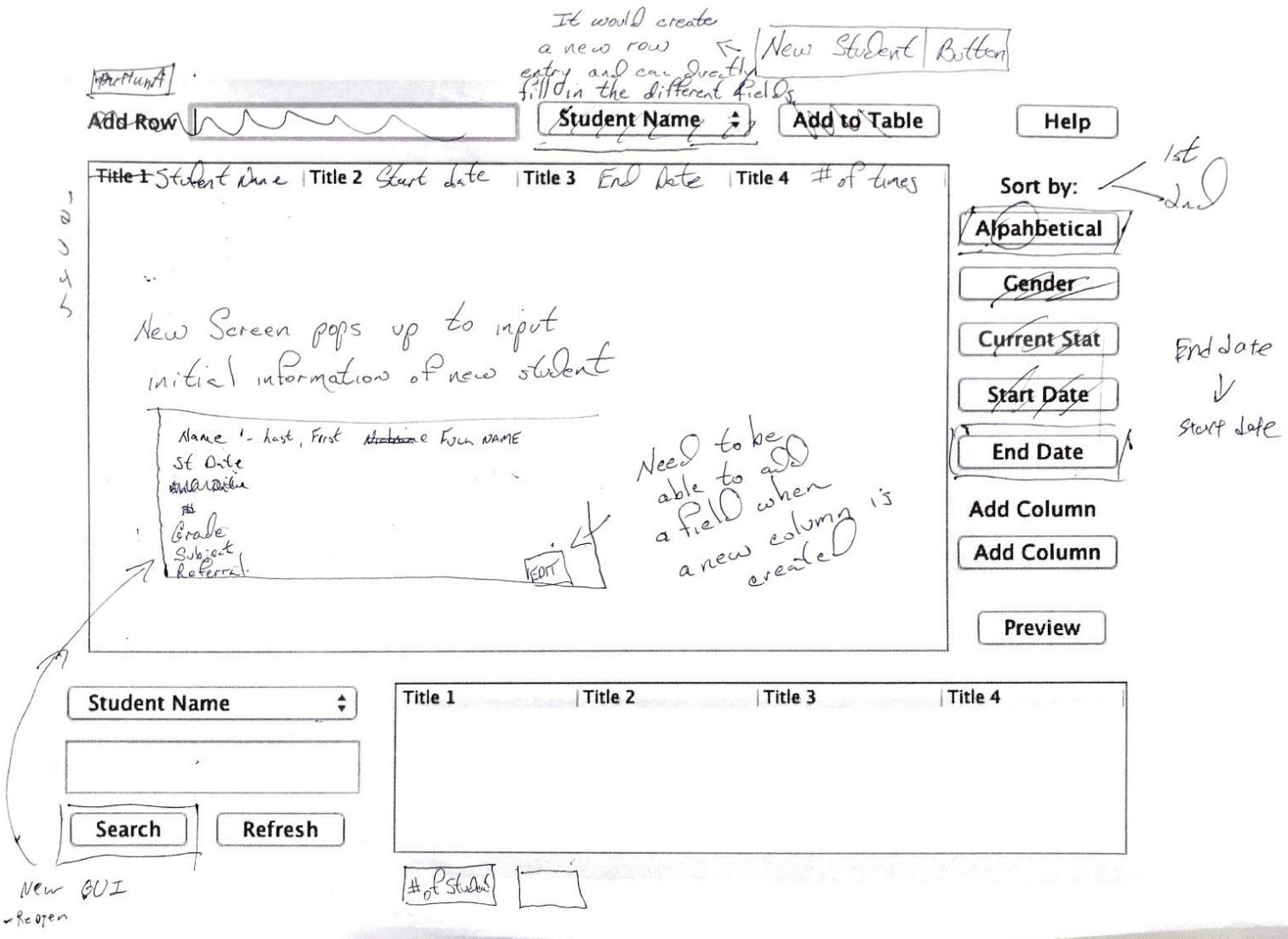
5) Final prototype (few days)

   - Have a conversation with the client for user testing.

6) Final check (1 day)

   - Check all functions / unused codes / design of GUI / errors

Final Prototype

It would create
a new row
entry and can directly
fill in the different fields.

New Student Button

ProtlumA

Add Row | | Student Name ⬍ | Add to Table | Help

1st
2nd

Title 1 Student Name | Title 2 Start date | Title 3 End Date | Title 4 # of times

Sort by:

Alpahbetical

Gender

Current Stat

Start Date

End Date

Add Column

Add Column

Preview

End date
↓
Start date

New Screen pops up to input
initial information of new student

Name - Last, First   Full NAME
St Date
#
Grade
Subject
Referral.

EDIT

Need to be
able to add
a field when
a new column is
created

Student Name ⬍

Search | Refresh

New GUI
- Re open

| Title 1 | Title 2 | Title 3 | Title 4 |

# of Students

Name
DATE

New field
for
New Colm

Based on the conversation with my client, he requested
to modify some buttons and functions.

work
Misc   rpwulfl2load.com

Misc 2

Misc 3

(Figure 1)

This is the original GUI prototype for main screen.

This is the new prototype based on the client's suggestions. Major changes from the original are process of adding the new student. Before modification, adding the new student by using one text field and one combo box is not efficient; therefore, I replaced that part by "Add New Student" button. When the client clicked on this button, the other GUI window will pop-up.

This GUI asks to fill in the text field for each information. Once the client filled in the text field and then clicked on "Add", the new information will appear on the table on the main screen.

The minor fix is that I deleted unnecessary button for sorting. Secondly, I added the text field which keeps track of a total number of the student.

Testing Plan

This GUI asks the client to add new title in the table or not.

Input	Normal	Border	Abnormal	Extreme
Title for column	Student Address	All letters, numbers, @ sign is accepted.	Warning message when no input, but add column is pressed.	Very long address Warning message appear when limit is exceeded.

This GUI asks the client to fill in each information for new student. When "add" is pressed, new student will appear on the table.

Input	Normal	Border	Abnormal	Extreme
Student Full Name	Michael Jack	Warning message when no inputs	Other than letters results in warning message.	Very long name - more than 30 letters No limits in name
Student nickname	Jack	Accepts all letters, sign, and number Warning message when no inputs	No inputs Re-entry message pop up	Very long name Re-entry when letter exceed the limit.
Subject	Math	Accepts all letter, sign, and numbers Warning message when no inputs	No inputs Re-entry message pop up	Very long word Re-entry when letter exceed the limit.
Recommended by	Math teacher	Accepts all letters, sign, and number Warning message when no inputs	No inputs Re-entry message pop up	Very long name Re-entry when letter exceed the limit.

Criteria B Word Count : 428