## Manual document (user's operations: how to run your project)

User can easily use this GPA Management System:

1. When GUI start, there is a GUI pop-up;

2. As you see, 4 pages exist. You can click the mouse to any page.

3. If you need to create a new course roster, you can do your work in page1. There are two way you can choose to input data: default input or manual input. If you click default, it will use "CS401, 3 ,20 , 10 ,1 ,2 "data order to input data into a course.txt file. Or you can insert all data you want input into the text field and click 'input data', which will also write data into the same course.txt file.

4. If you need to input students' grade data. You can click on button 'next page' and work in page2. Just like above, following the mouse tips, input the data you want according to "First_name, Last_name, SID, Class _number, Site, Homework_grades(every Homework_grade you need use ',' to split), project_grade, Midterm_grade,  Final_term_grade". The data will write into grade.txt file.

5. If you need to search any record. The page3 can help you. You can search specific student's information by enter any one of first name, last name or student ID. Or show traveling_list by enter First_name, Last_name, Site, Orientation like"+or-",Step_number, every phrase needs use ',' to split.

6. If you want show rank_list of Students' total score, homework average score or project score and the list of Student's all the information according to the order like "Last name, first name, SID, Site, homework average, project, midterm, final, total score, Grade" . You may like use the page4. It has several powerful functions to show you the grade

information. But what you must remember is, you need input the score weight once before you check any thing like total scores,Homework average score, project score or all the information of students. Once you return the previous page, the text area will never keep. also, every time you open the app, you need to input the score weight again. In the same way, if you want change the weight rate, you should input the new weight rate and click the score weight button.