

## Assignment 3

The programme meets the specification laid out in the brief. Several assumptions were made about the way the programme will be used. As per the project specification, it was assumed that the class input file is in the correct format, so no validation is required. If the file cannot be found or if the file cannot be read, an error message is produced, and the timetable is not populated. Also following the brief, it was assumed that the classes in the attendance input file match those in the class input file.

When the add button is pressed, validation is performed on the inputs. If any of the fields are empty, a relevant error message is displayed and the add function is not performed. Similarly, if the timetable is full or if there is already a class with the same ID, the add function will fail and an error message will be displayed. The maximum length for the course name and tutor name strings was set to 10 characters. This was deemed to be sufficient, as the brief stated that it can be assumed these strings will be single words. Setting a limit to these strings avoids formatting errors. The design decision was taken to make the course ID case sensitive and not to set an upper character limit, thus care must be taken when entering the ID. If the add function is successful, the class is added to the first available slot in the timetable. This can be seen in figures 2 and 3.

When the delete button is pressed, validation is performed to ensure that the course ID input is not empty, if it is an error message will be displayed. If an ID is entered that does not match a class in the schedule, an error message will be displayed, and no further action will be performed. It should be noted that the class and name fields are not required to use the delete function. If there is an input in either field, it will simply be ignored. An example of a successful delete can be seen in figures 4 and 5. For both the add and delete functions, the input text fields are cleared after a successful operation.

An example of the completed attendance report that is produced upon pressing view attendances can be seen in figure 6, as can be seen it is correctly ordered and displays all the required information. The output file that is produced upon pressing the save and exit button can be seen in figure 7.

A selection of the data used to test the programme's functionality can be seen below in table 1. Where appropriate, a reference is made to the corresponding figure number of the error message that is produced, these can be seen in appendix 2.

*Table 1. Test Inputs*

Scenario	ID	Name	Tutor	Result	As Expected?
Add class - No ID entered		Tennis	Claire	Error message (8)	Yes
Add class - No name entered	ct1		Claire	Error message (9)	Yes
Add class - No tutor entered	ct1	Tennis		Error message (10)	Yes
Add class – Timetable full	ct1	Tennis	Claire	Error message (11)	Yes
Add class – No data entered				Error message (8)	Yes
Add class – ID already exists	mp1	Pilates	Mandy	Error message (12)	Yes
Add class – name too long		NameTooLong		Error message (14)	Yes
Add class – tutor too long			NameTooLong	Error message (15)	Yes
Delete class – No ID entered				Error message (8)	Yes
Delete class – Wrong ID	zr3			Error message (13)	Yes
Class in file does not exist				Error message (16)	Yes
Attendance in file does not exist				Error message (16)	Yes
Add class - Success	ct1	Tennis	Claire	Class was Added	Yes
Delete class - Success	mp1			Class was deleted	Yes

## Appendix 1 – Screen Dumps

Boyd-Orr Sports Centre

Save and Exit View Attendances

9-10	10-11	11-12	12-13	13-14	14-15	15-16
yoga	badminton	pilates	Available	Available	pilates	step
jane	liz	mandy			mandy	linda

Enter Class Id

Enter Class Name

Enter Tutor Name

Add Delete

Figure 1. The GUI upon running

Boyd-Orr Sports Centre

Save and Exit View Attendances

9-10	10-11	11-12	12-13	13-14	14-15	15-16
yoga	badminton	pilates	Available	Available	pilates	step
jane	liz	mandy			mandy	linda

Enter Class Id

Enter Class Name

Enter Tutor Name

Add Delete

Figure 2. Adding a new class

Boyd-Orr Sports Centre

Save and Exit View Attendances

9-10	10-11	11-12	12-13	13-14	14-15	15-16
yoga	badminton	pilates	Tennis	Available	pilates	step
jane	liz	mandy	Claire		mandy	linda

Enter Class Id

Enter Class Name

Enter Tutor Name

Add Delete

Figure 3. GUI after the class was added

9-10	10-11	11-12	12-13	13-14	14-15	15-16
yoga	badminton	pilates	Tennis	Available	pilates	step
jane	liz	mandy	Claire		mandy	linda

Enter Class Id:

Enter Class Name:

Enter Tutor Name:

Add Delete

Figure 4. Deleting an existing class

9-10	10-11	11-12	12-13	13-14	14-15	15-16
yoga	badminton	Available	Tennis	Available	pilates	step
jane	liz		Claire		mandy	linda

Enter Class Id:

Enter Class Name:

Enter Tutor Name:

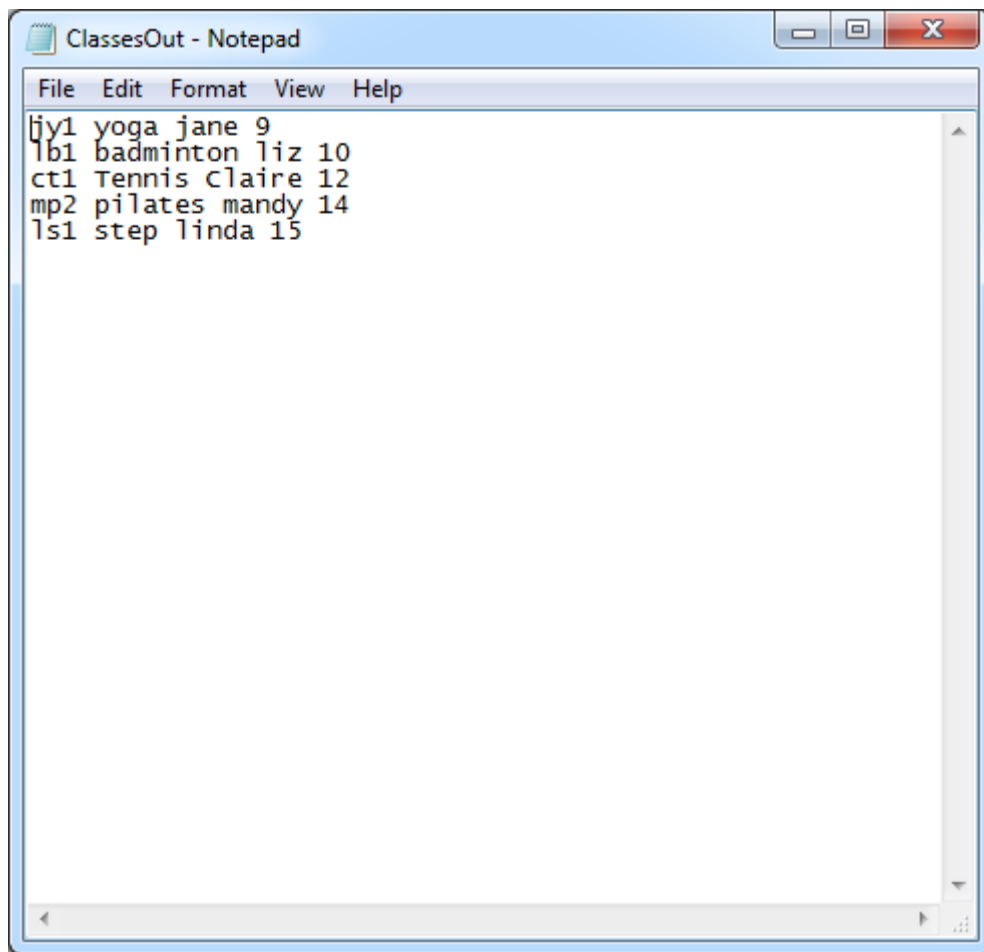
Add Delete

Figure 5. GUI after the class was deleted

ID	Name	Tutor	Attendances					Average Attendance
mp2	pilates	mandy	10	12	15	15	14	13.20
lb1	badminton	liz	12	12	12	12	12	12.00
ls1	step	linda	9	7	12	14	15	11.40
jy1	yoga	jane	10	10	10	10	10	10.00
ct1	Tennis	Claire	0	0	0	0	0	0.00

Overall average: 9.32

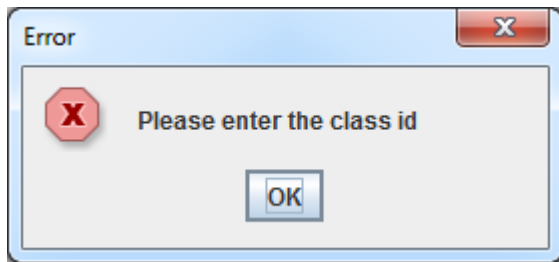
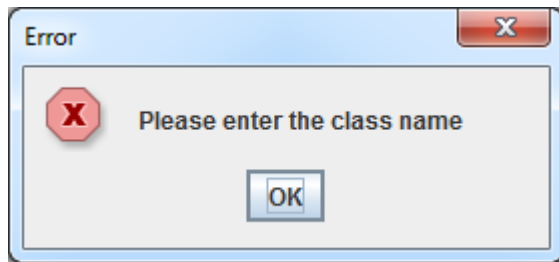
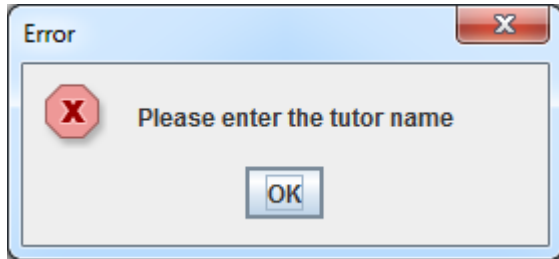
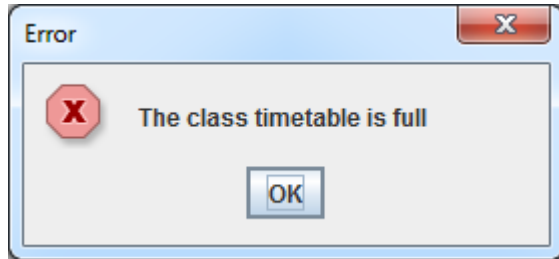
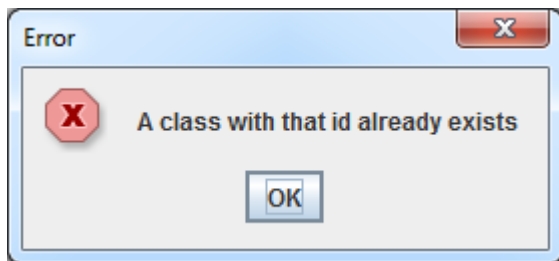
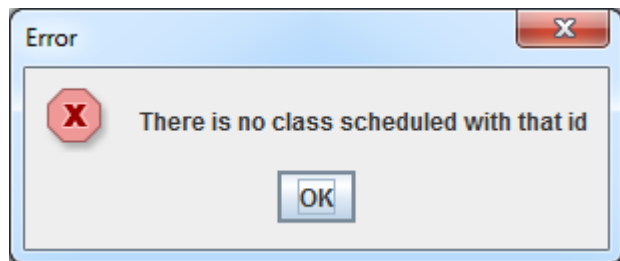
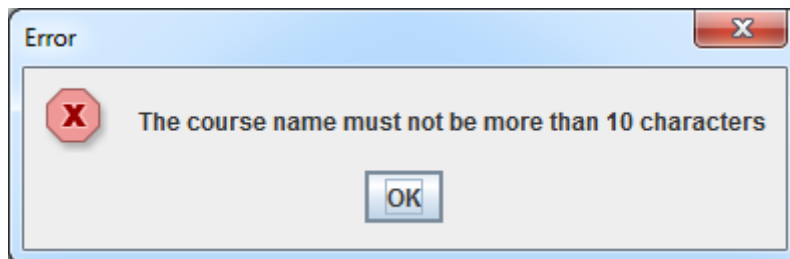
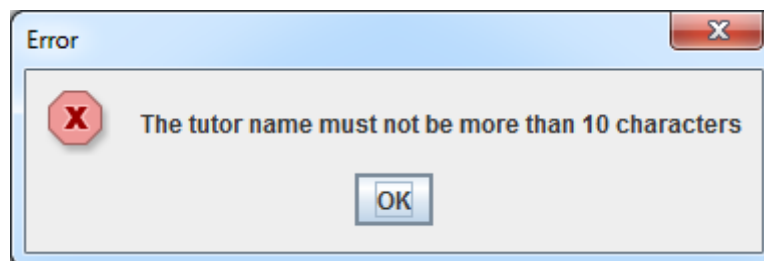
Figure 6. The attendance report

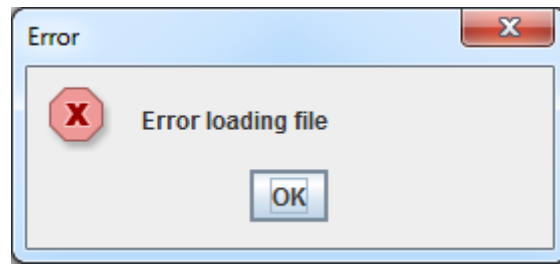


```
ClassesOut - Notepad
File Edit Format View Help
ljy1 yoga jane 9
lb1 badminton liz 10
ct1 Tennis Claire 12
mp2 pilates mandy 14
ls1 step linda 15
```

Figure 7. The output file

## Appendix 2 - Error Messages

*Figure 8. ID has not been entered**Figure 9. Name has not been entered**Figure 10. Tutor has not been entered**Figure 11. The timetable is full**Figure 12. Class already in schedule**Figure 13. Can't delete because class is not in schedule**Figure 14. Course name is too long**Figure 15. Tutor name is too long*



*Figure 16. File could not be loaded*