

IT/SD Masters Team Project

Team P

Team Members:

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Assumptions

1. The ModulesIn.txt file contains properly formatted entries such as:
 - The module title does not contain any spaces in it. Any spaces that would have been there are replaced with an underscore.
 - The module code should have exactly five characters
 - The room should have only one character.
2. The ModulesIn.txt file does not contain any modules with duplicate module codes.
3. The Wednesday PM time-slot can have modules assigned to it.
4. Although the administrator using the program can save the module details assigned so far, the program cannot read in the saved ModulesOut.txt file which would allow the administrator to resume work on the timetable later.

Deficiencies

There are no known deficiencies. The program works as requested.

Testing

Extensive testing of the program was done using some test cases to verify that the program meets all the required specifications. The tests included the following:

1. Assigning a module to a room which has a capacity that is less than the number of enrolments in the module. For example assigning IT204 to room F in time-slot WedAM. The program rejected the assignment, notifying the user that the room was too small for the class.
2. Assigning a module to a room and time slot already occupied by another module. For example assigning EL105 to room A in time-slot FriPM. The program rejected the assignment, notifying the user that the specified room already has another module assigned in the time slot.
3. Assigning a module to a time slot which already had another module with the same year and subject taking place but in another room. For example assigning EL104 to room C in time-slot MonAM. The program rejected the assignment, notifying the user that another module with the same year and subject was taking place in the specified time slot.
4. Making a valid assignment, that is a module that did not violate any of the above tests. For example assigning IT104 to room A in time-slot MonAM. The program accepted the assignment, with the new module displayed in the appropriate room and time-slot on the timetable. Also, the program updates the display of the module details with the new room and time-slot.
5. Saving the program by clicking on the 'Save Timetable' button. The program generated a 'ModulesOut.txt' file containing the current module assignments.
6. Exiting the program either by clicking on the 'Quit' button or by clicking the window close icon on the top right corner of the window. The program displayed a prompt, asking the user if the timetable has been saved.
 - a. If the user selects 'Yes', then the program exits.

- b. If the user selects 'Cancel', the prompt is removed but the program does not exit, allowing the user to continue working on the program.
 - c. If the user selects 'No', he or she is asked if the timetable is to be saved.
 - i. If 'Yes' is selected, the program saves the timetable and exits.
 - ii. If 'No' is selected, the program exits without saving the timetable.
- 7. When the 'ModulesOut.txt' file generated by the program was opened, it contained all the modules, including allocated and unallocated ones. It reflects the changes made to the timetable by the user of the program (if saved) before the program was exited.

Screenshots

Timetable									Code	Time	Room	Size
	A(100)	B(100)	C(60)	D(60)	E(60)	F(30)	G(30)	H(30)				
MonAM					EL101				EL101	MonAM	E	50
MonPM									EL102	?????	?	50
TueAM									EL103	?????	?	50
TuePM		IT101							EL104	?????	?	50
WedAM									EL105	?????	?	50
WedPM									EL106	?????	?	50
ThuAM									EL201	?????	?	30
ThuPM									EL202	?????	?	30
FriAM									EL203	?????	?	30
FriPM	IT102								EL204	?????	?	30
									EL205	?????	?	30
									EL206	?????	?	30
Module Code	EL101								IT101	TuePM	B	100
Time Slot	MonAM								IT102	FriPM	A	100
Room	A								IT104	?????	?	100
Remove	Assign								IT106	?????	?	100
Save Timetable	Quit								IT107	?????	?	100
									IT108	?????	?	100
									IT201	?????	?	60
									IT202	?????	?	60
									IT204	?????	?	60
									IT210	?????	?	60
									IT211	?????	?	60
									IT219	?????	?	60

Screenshot 1) Displays the timetable at the start of the program which loads the ModulesIn.txt file.

Timetable									Code	Time	Room	Size
	A(100)	B(100)	C(60)	D(60)	E(60)	F(30)	G(30)	H(30)				
MonAM	IT104				EL101				EL101	MonAM	E	50
MonPM									EL102	?????	?	50
TueAM									EL103	?????	?	50
TuePM		IT101							EL104	?????	?	50
WedAM									EL105	?????	?	50
WedPM									EL106	?????	?	50
ThuAM									EL201	?????	?	30
ThuPM									EL202	?????	?	30
FriAM									EL203	?????	?	30
FriPM	IT102								EL204	?????	?	30
									EL205	?????	?	30
									EL206	?????	?	30
Module Code	IT104								IT101	TuePM	B	100
Time Slot	MonAM								IT102	FriPM	A	100
Room	A								IT104	MonAM	A	100
Remove	Assign								IT106	?????	?	100
Save Timetable	Quit								IT107	?????	?	100
									IT108	?????	?	100
									IT201	?????	?	60
									IT202	?????	?	60
									IT204	?????	?	60
									IT210	?????	?	60
									IT211	?????	?	60
									IT219	?????	?	60

Screenshot 2) Displays the timetable with module IT104 in Room A in time-slot MonAM

	A(100)	B(100)	C(60)	D(60)	E(60)	F(30)	G(30)	H(30)
MonAM	IT104				EL101			
MonPM								
TueAM								
TuePM								
WedAM								
WedPM								
ThuAM								
ThuPM		IT101						
FriAM								
FriPM	IT102							

Module Code	IT101
Time Slot	ThuPM
Room	B
Remove	Assign
Save Timetable	Quit


Code	Time	Room	Size
EL101	MonAM	E	50
EL102	?????	?	50
EL103	?????	?	50
EL104	?????	?	50
EL105	?????	?	50
EL106	?????	?	50
EL201	?????	?	30
EL202	?????	?	30
EL203	?????	?	30
EL204	?????	?	30
EL205	?????	?	30
EL206	?????	?	30
IT101	ThuPM	B	100
IT102	FriPM	A	100
IT104	MonAM	A	100
IT106	?????	?	100
IT107	?????	?	100
IT108	?????	?	100
IT201	?????	?	60
IT202	?????	?	60
IT204	?????	?	60
IT210	?????	?	60
IT211	?????	?	60
IT219	?????	?	60

Screenshot 3) Displays the timetable with IT101 moved to room B in time-slot ThuPM

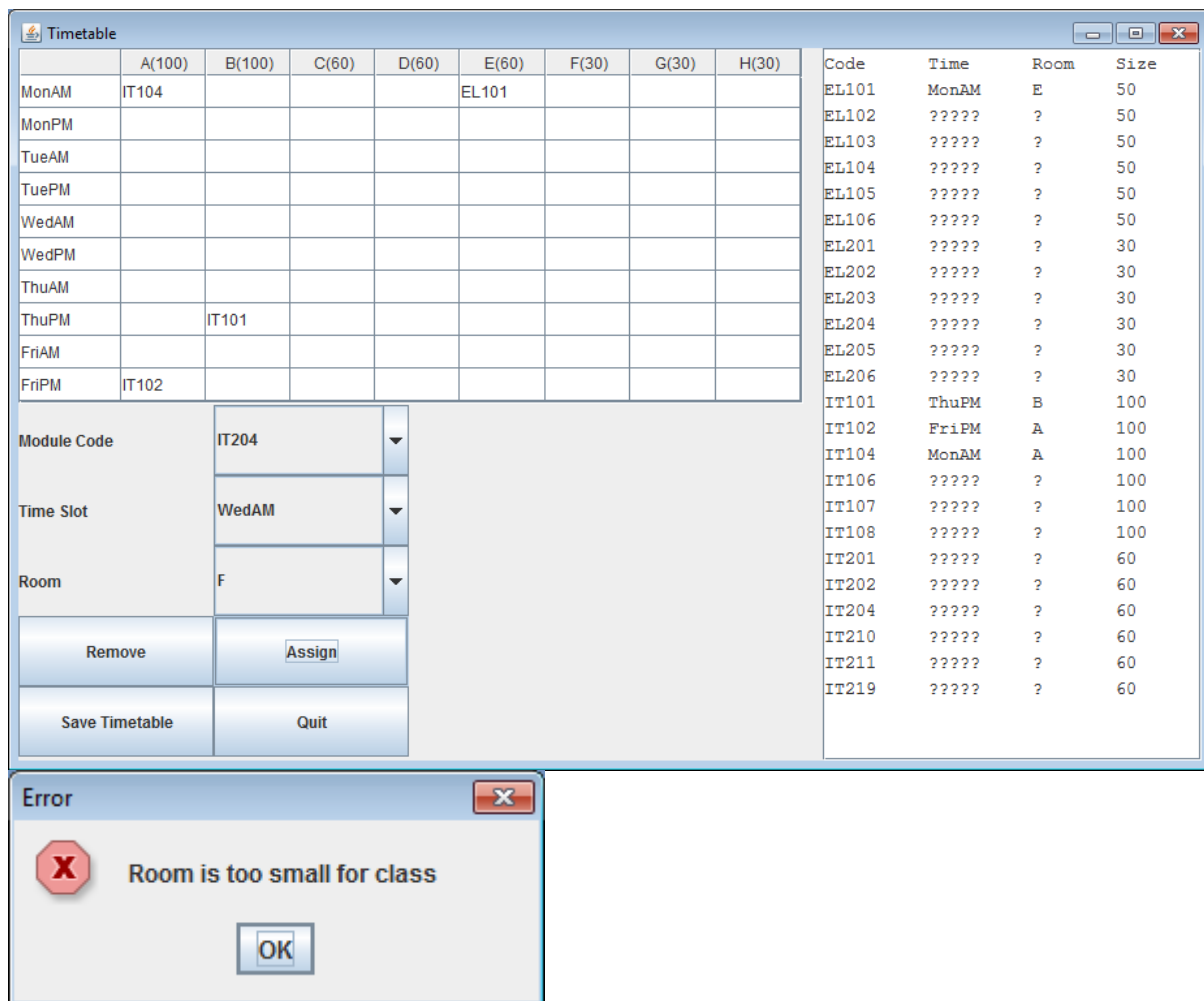
	A(100)	B(100)	C(60)	D(60)	E(60)	F(30)	G(30)	H(30)
MonAM	IT104				EL101			
MonPM								
TueAM								
TuePM								
WedAM								
WedPM								
ThuAM								
ThuPM		IT101						
FriAM								
FriPM	IT102							

Module Code	EL105
Time Slot	FriPM
Room	A
Remove	Assign
Save Timetable	Quit

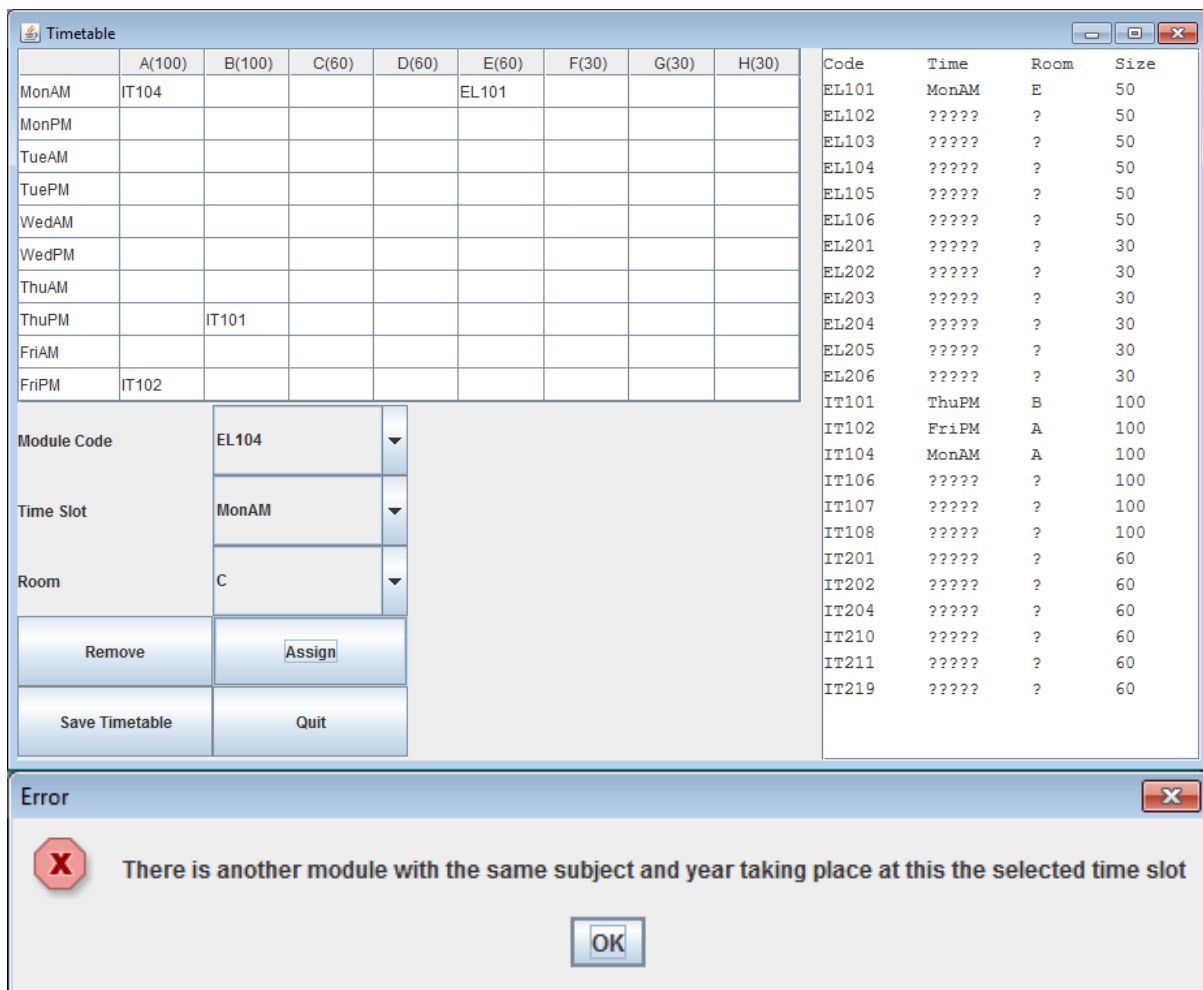
Code	Time	Room	Size
EL101	MonAM	E	50
EL102	?????	?	50
EL103	?????	?	50
EL104	?????	?	50
EL105	?????	?	50
EL106	?????	?	50
EL201	?????	?	30
EL202	?????	?	30
EL203	?????	?	30
EL204	?????	?	30
EL205	?????	?	30
EL206	?????	?	30
IT101	ThuPM	B	100
IT102	FriPM	A	100
IT104	MonAM	A	100
IT106	?????	?	100
IT107	?????	?	100
IT108	?????	?	100
IT201	?????	?	60
IT202	?????	?	60
IT204	?????	?	60
IT210	?????	?	60
IT211	?????	?	60
IT219	?????	?	60

 Error	
There is another module at the selected time and room. Please remove that module first or choose another time or room.	
<div>OK</div>	

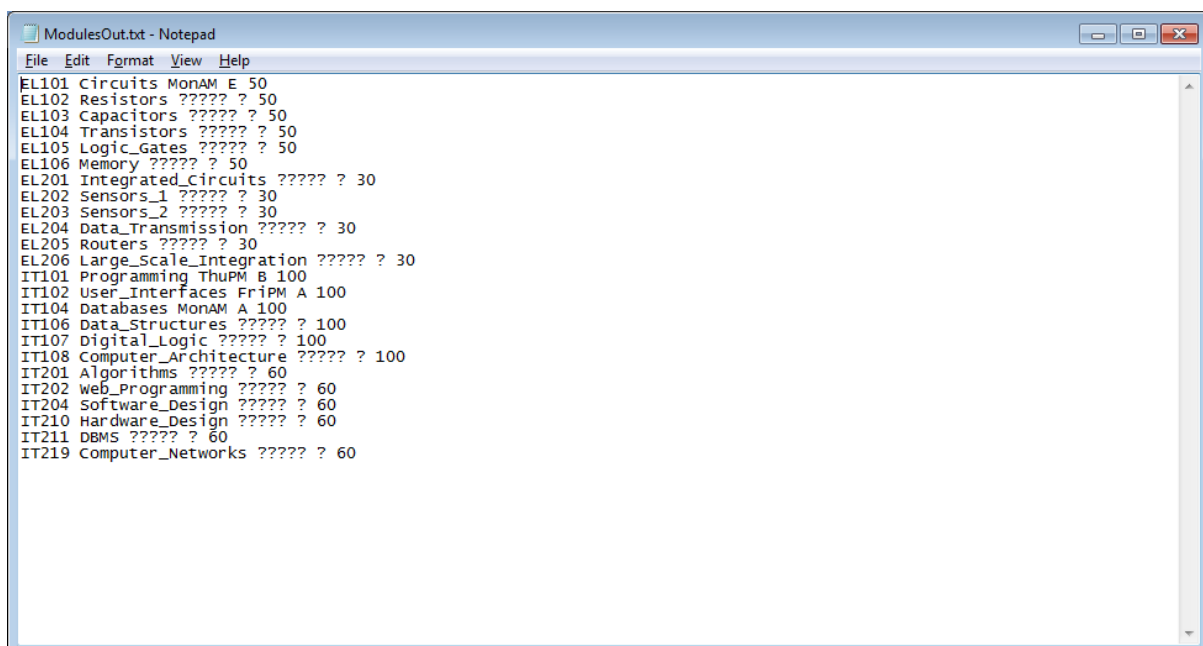
Screenshot 4) An error message was displayed when we tried to move module EL105 to room A in time-slot FriPM.



Screenshot 5) An error message was displayed when we tried to move module IT204 to room F in time-slot WedAm.



Screenshot 6) An error message is displayed when we tried to move module EL104 to room C in time-slot MonAm



Screenshot 7) Displays the saved ModulesOut.txt file

	A(100)	B(100)	C(60)	D(60)	E(60)	F(30)	G(30)	H(30)
MonAM	IT104				EL101			
MonPM								
TueAM								
TuePM								
WedAM					IT211			
WedPM								
ThuAM								
ThuPM		IT101						
FriAM								
FriPM	IT102							

Code	Time	Room	Size
EL101	MonAM	E	50
EL102	?????	?	50
EL103	?????	?	50
EL104	?????	?	50
EL105	?????	?	50
EL106	?????	?	50
EL201	?????	?	30
EL202	?????	?	30
EL203	?????	?	30
EL204	?????	?	30
EL205	?????	?	30
EL206	?????	?	30
IT101	ThuPM	B	100
IT102	FriPM	A	100
IT104	MonAM	A	100
IT106	?????	?	100
IT107	?????	?	100
IT108	?????	?	100
IT201	?????	?	60
IT202	?????	?	60
IT204	?????	?	60
IT210	?????	?	60
IT211	WedAM	E	60
IT219	?????	?	60

Screenshot 8) Displays the timetable after module IT211 has been moved to room E in time-slot WedAm.

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EL101 Circuits MonAM E 50
EL102 Resistors ????? ? 50
EL103 Capacitors ????? ? 50
EL104 Transistors ????? ? 50
EL105 Logic_Gates ????? ? 50
EL106 Memory ????? ? 50
EL201 Integrated_Circuits ????? ? 30
EL202 Sensors_1 ????? ? 30
EL203 Sensors_2 ????? ? 30
EL204 Data_Transmission ????? ? 30
EL205 Routers ????? ? 30
EL206 Large_Scale_Integration ????? ? 30
IT101 Programming ThuPM B 100
IT102 User_Interfaces FriPM A 100
IT104 Databases MonAM A 100
IT106 Data_Structures ????? ? 100
IT107 Digital_Logic ????? ? 100
IT108 Computer_Architecture ????? ? 100
IT201 Algorithms ????? ? 60
IT202 Web_Programming ????? ? 60
IT204 Software_Design ????? ? 60
IT210 Hardware_Design ????? ? 60
IT211 DBMS wedAM E 60
IT219 Computer_Networks ????? ? 60

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Screenshot 9) Displays the saved ModulesOut.txt