

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

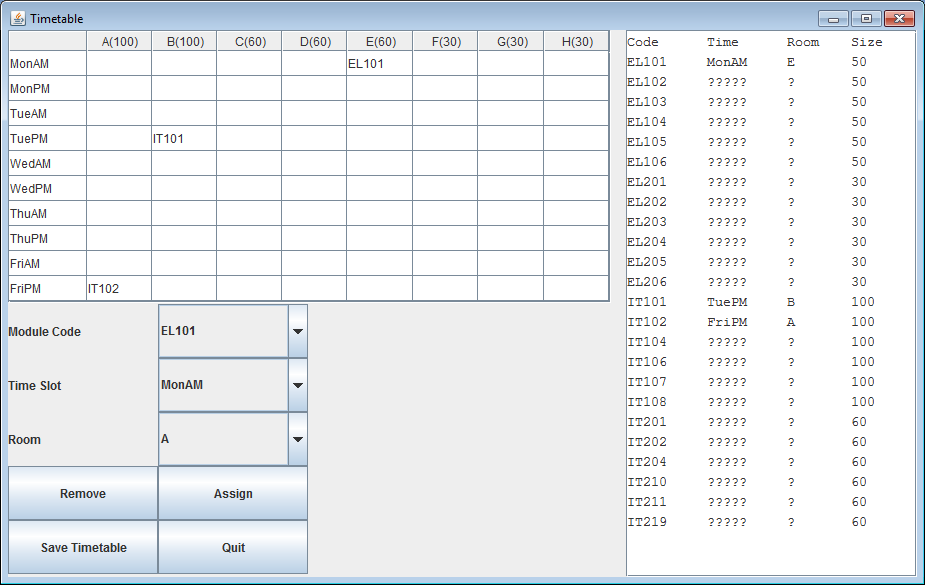
There are no known deficiencies. The program works as requested.

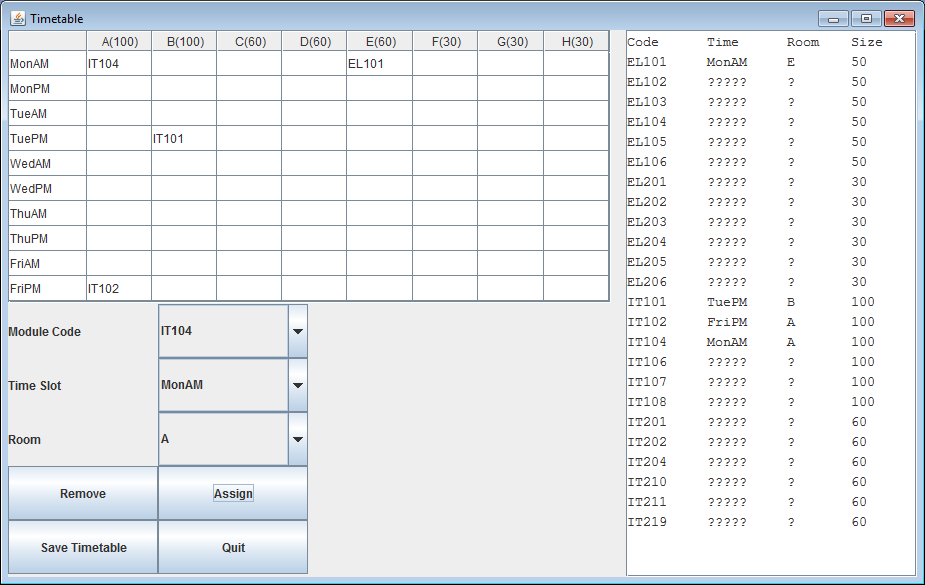
# Testing

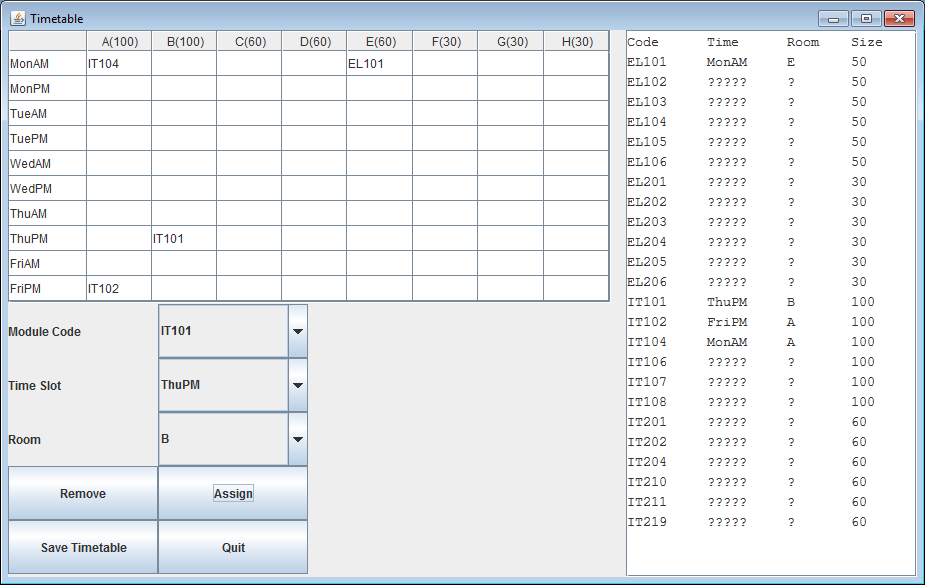
Extensive testing of the program was done using some test cases to verify that the program meets all the required specifications. The tests included the following:

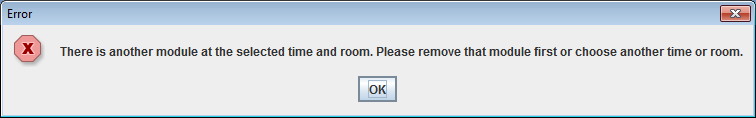
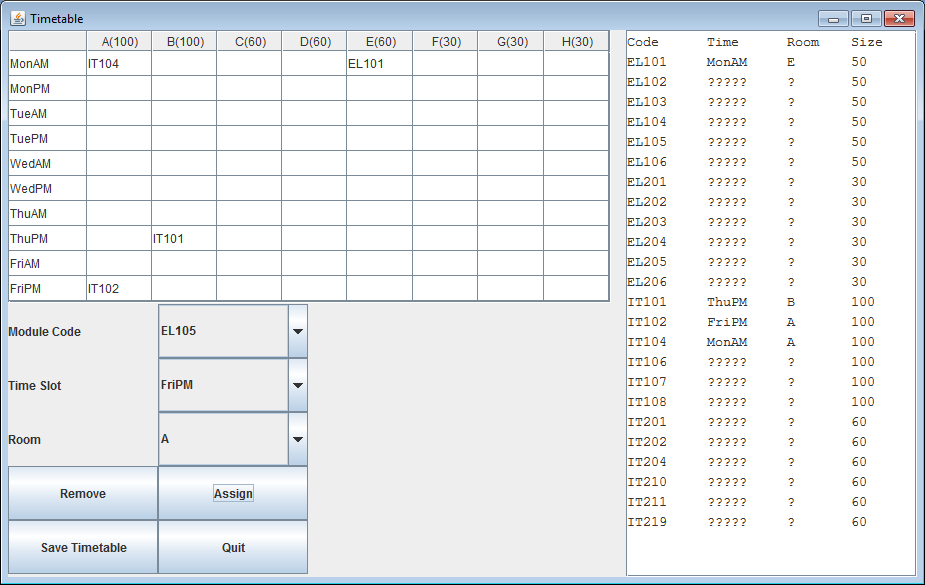
1. Assigning a module to a room which has a capacity that is less than the number of enrolments in the module. For example assigning IT204 to room F in time-slot WedAM. The program rejected the assignment, notifying the user that the room was too small for the class.
2. Assigning a module to a room and 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.
   1. If the user selects ‘Yes’, then the program exits.
   2. If the user selects ‘Cancel’, the prompt is removed but the program does not exit, allowing the user to continue working on the program.
   3. If the user selects ‘No’, he or she is asked if the timetable is to be saved.
      1. If ‘Yes’ is selected, the program saves the timetable and exits.
      2. 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.

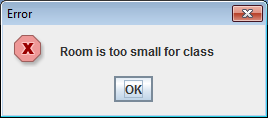
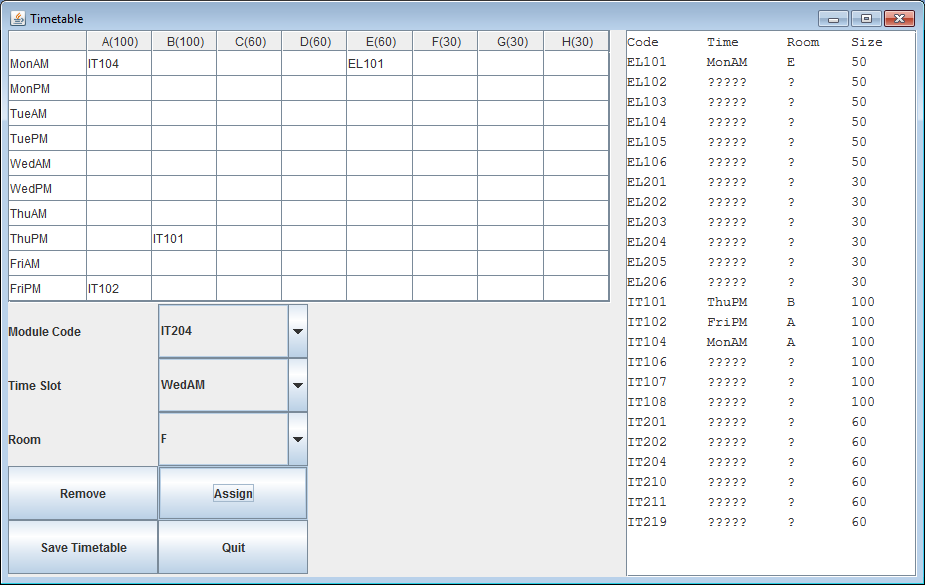
# Screenshots

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

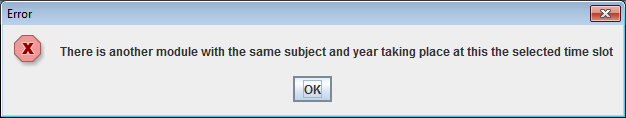
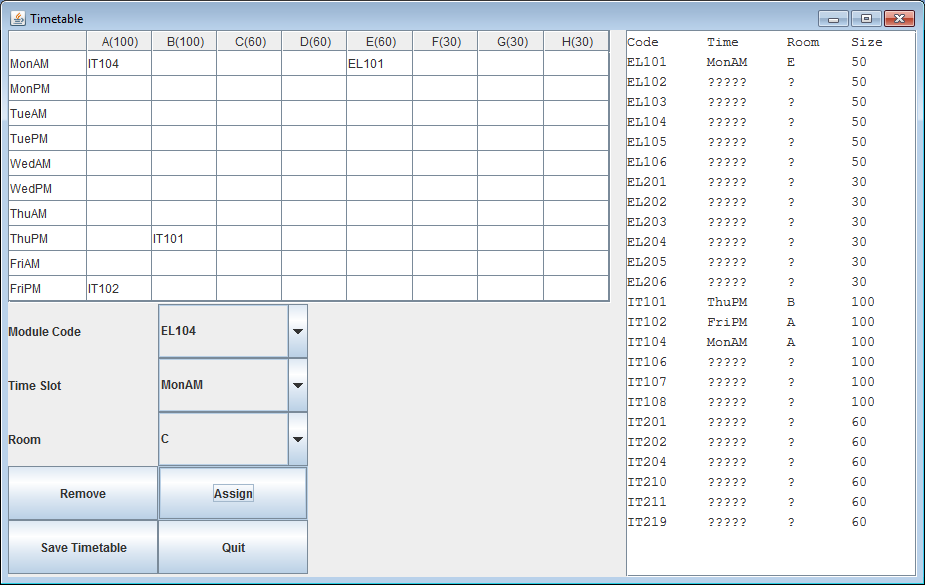
Screenshot 2) Displays the timetable with module IT104 in Room A in time-slot MonAM

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

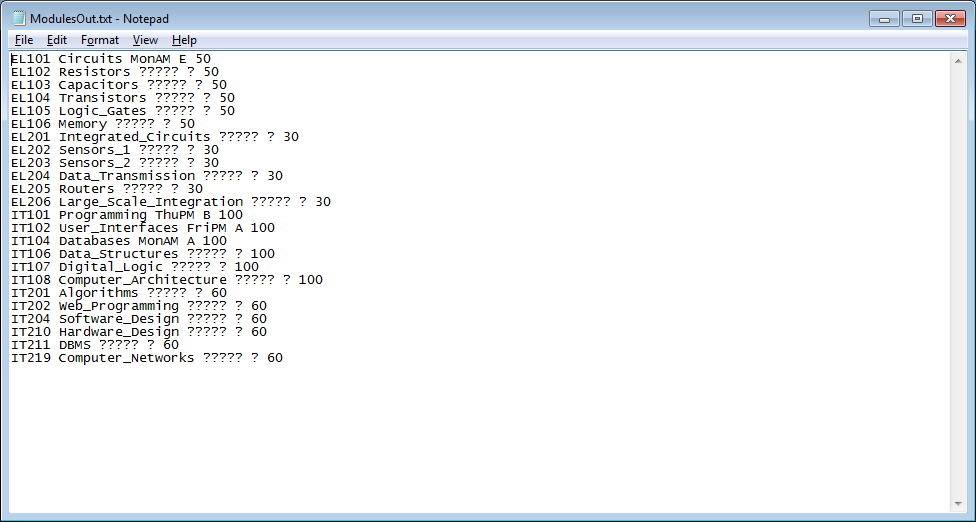
Screenshot 4) An error message was displayed when we tried to move module EL105 to room A in time-slot FriPM.



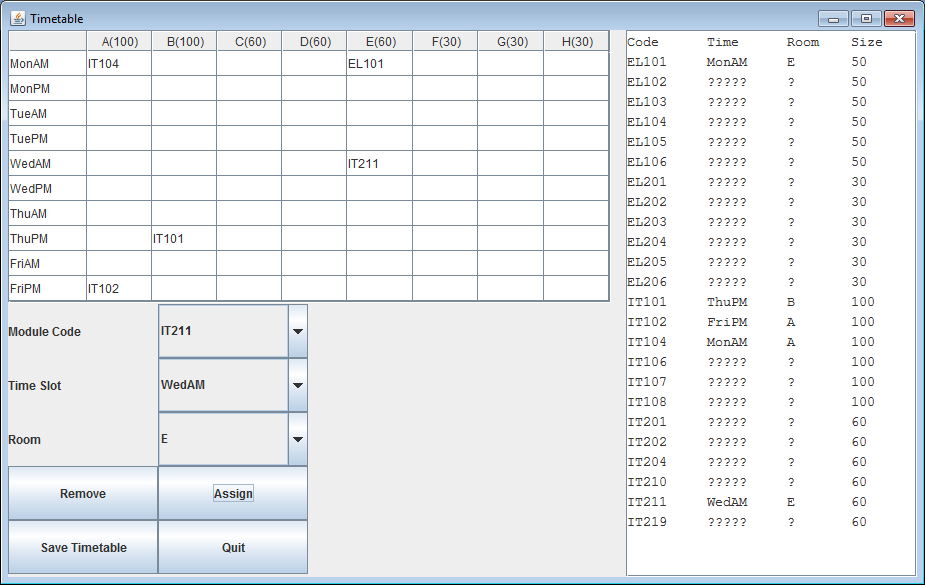
Screenshot 5) An error message was displayed when we tried to move module IT204 to room F in time-slot WedAm.



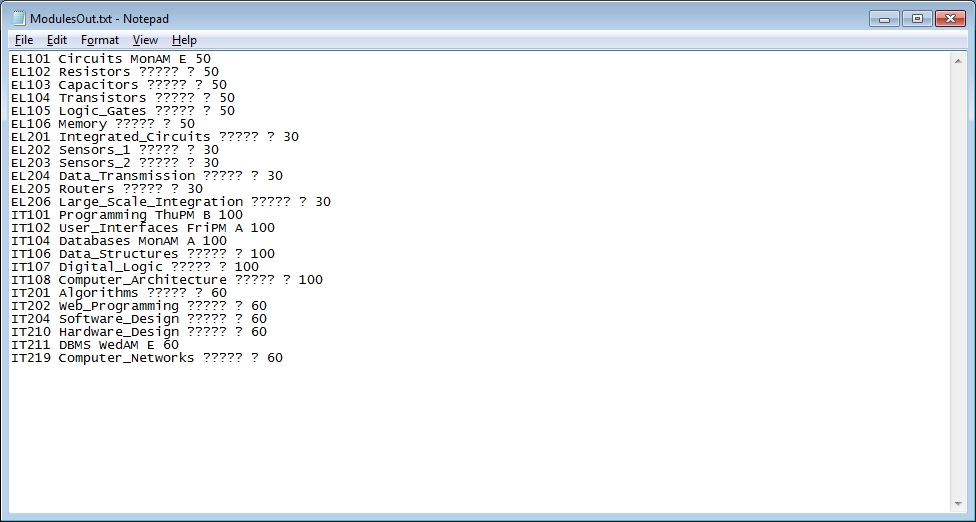
Screenshot 6) An error message is displayed when we tried to move module EL104 to room C in time-slot MonAm



Screenshot 7) Displays the saved ModulesOut.txt file



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



Screenshot 9) Displays the saved ModulesOut.txt