



Mini Project

30%

Week 6 – week 13

Grouping and Free access

- You have to be grouped into team of three according to seats.



- You are given time in labs from week 10 to week 12 to work on the projects.
- You need spend time after class as well. You can come for free access if you prefer. The slots for free access can be found in each lab.



Where to get instruction/reference?

19S1-CE1003-CZ1003-C-LEC 19S1-CE1003-CZ1003-INTRO TO COMPUTATIONAL THINKING



Course Materials

Mini Project

19S1-CE1003-CZ1003-C-LEC (19S1-CE1003-CZ1003-INTRO TO COMPUTATIONAL THINKING)

Announcements

Home Page

Information

Course Information

Mini Project

Build Content

Assessments

Tools

Partner Content



Instruction and rubrics

Attached Files:

- CX1003-Real-time Canteen Information System.pdf (789.52 KB)
- Program assessment form.pdf (164.979 KB)
- Report Assessment rubrics.pdf (336.639 KB)

1. Group oral presentation:

- lab session Week 13
- 80%

Course site of each group will be created. You are required to submit your source code and report to lab group course site before deadline of your group.

2. Source code submission:

- Deadline: last lab session day of your group 1159pm
- Late submission penalty: 10% mark deduction from group oral per day late

3. Report submission:

- Deadline: last lab session day of your group 1159pm
- 20%

You are required to create Real-time NTU north spine canteen information system with the following capabilities

- A. Store and display stall information
- B. Store and display stall menus
- C. Display stall information and menus based on current system date and time
- D. Display stall information and menus based on user defined date and time
- E. Calculate estimated waiting time for the stall by asking user to enter the number of people in the queue
- F. Allow to check the operating hours for all stalls

Rubrics

Assessment Criteria		Marks
1	Use of string operations/functions (5)	
2	File operation and Exception handling (5)	
3	Use of Dictionary (5)	
	Use of tuple/list (5)	
4	Program correctness: Program produces the right output under all possible scenarios highlighted in the assignment guideline (20)	
5	Program organization: function, module (5)	
6	Programming style: Clarity and comprehensibility of code, appropriate use of variable/value/function names, indentations, comments and documentation.(5)	
7	Interface Design. User-friendliness: User controls are simple and intuitive, clear display message that is comfortable for viewing, easily-understandable user instructions and output. (20)	
8	Teamwork & Presentation (10)	
9	Individual Oral Assessment (20)	



Q: Is the mini project compulsory to be GUI based?

A: It is ok that you structure the project to be executed in the terminal to meet the basic requirements. Only marks in item 7 will be affected.

Q. Do we need to implement the program, which is exactly same as the Demo?

A: No. Please be as creative as possible.

Q: Can we download and use public library and module?

A: Yes. You are free to explore.

Q: Can you recommend some public library and module for GUI development?

A: Yes. We have recommended some. Tkinter, pygame, PyQt, and wxPython etc. Please refer to mini project instruction file.

- Each group will be given 7 mins to present your work and demo in lab.
- 2 marks deduction from Teamwork & Presentation (Max. 10 marks) per minute overrun
- Every group member has to participate
- Content of presentation:
 - State the contribution of each team member clearly
 - Program design (flow chart of top level)
 - Follow rubric to show if all the requirements have been fulfilled and how you did that in programming
 - Indicate the external library/module used if available

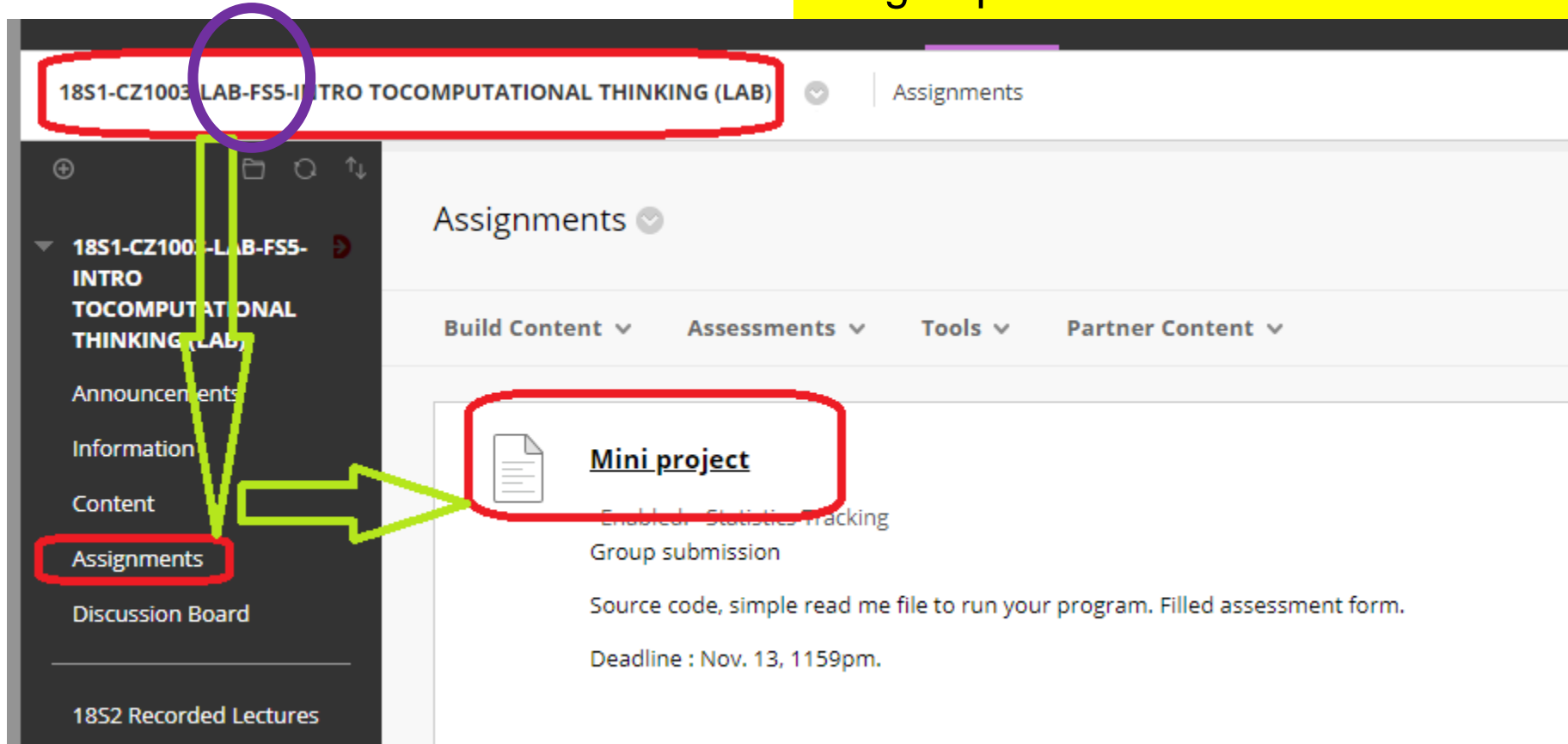
Report

Word limit:
1200 words excluding table
of content, flow charts,
reference, extracted partial
code, appendix
Font: Arial size 12

Criteria	Standards		
	Fail standard (30-40%)	Pass standard (50-70 %)	High standard (80-100 %)
Overall organization and presentation of report (10%)	Disorganised arrangement of sections. Ideas not clearly and effectively communicated.	Clear and logical organisation with all essential components. Ideas clearly and effectively communicated. Adequate use of graphics and legends.	Clear and logical organisation with all essential components. Ideas clearly and effectively communicated and able to simplify complex concepts. Adept use of graphics and legends that conveys information with clarity.
Algorithm design: Top level flow chart, the brief description of the important user defined functions (30%)	Algorithm design does not satisfy the system's functions requirements in the assignment handout.	Algorithm design satisfies the system's functions requirements and is designed with a clear logical flow.	In addition to the requirements of the previous standard, design shows a strong degree of non-complexity, for example, applying appropriate modularity.
Program testing: Error handling test cases (20%)	Insufficient test cases to factor in input/output of all possible scenarios generated by the user.	Moderate program testing and result presentation of the common scenarios that are considered in the program.	Complete program testing and result presentations of all possible scenarios. Test cases are mutually exclusive and collectively exhaustive.
Reflection: The difficulties encountered and the way to conquer, the knowledge learnt from this course, further improvement suggestion. (40%)	Insufficient demonstration of learning points that are based on experience gained from doing the assignment.	Moderate demonstration of learning points based on experience gained from doing the assignment, with some insights about good algorithm practices.	Strong demonstration of learning points and insights of good algorithm design and implementation practices, based on experience gained from doing the assignment.

Where to submit the source code and form?

Course site of each group will be created. You are required to submit your source code and report to lab group course site before deadline of your group.



The screenshot shows a course site for '18S1-CZ1003 LAB-FS5-INTRO TO COMPUTATIONAL THINKING (LAB)'. The course name is circled in red at the top. A sidebar on the left contains a menu with 'Assignments' highlighted in red. A green arrow points from the 'Assignments' menu item to a 'Mini project' assignment card, which is also outlined in red. The assignment card includes details: 'Enabled Statistics Tracking', 'Group submission', 'Source code, simple read me file to run your program. Filled assessment form.', and 'Deadline : Nov. 13, 1159pm.'.