Advanced Data Structures and Algorithm Analysis

Laboratory Projects

Minimum Requirements on Project Report and Presentation

Title of Project Report

Author Names

Date: yyyy-mm-dd

Chapter 1: Introduction

Problem description, purpose of this report, and (if any) background of the data structures and the algorithms. ***Be concise.***

Chapter 2: Data Structure / Algorithm Specification

Description (pseudo-code preferred) of all the algorithms involved for solving the problem, including specifications of main data structures.

Or, if you are to introduce a new data structure and its related operations, do it in this chapter.

Chapter 3: Testing Results

Table of test cases. Each test case usually consists of a brief description of the purpose of this case, the expected result, the actual behavior of your program, the possible cause of a bug if your program does not function as expected, and the current status ("*pass*", or "*corrected*", or "*pending*").

Chapter 4: Analysis and Comments

Analysis of the time and space complexities of the algorithms. Comments on comparing with other known data structures and algorithms. Further possible improvements.

Appendix: Source Code (if required)

At least 30% of the lines must be commented. Otherwise the code will NOT be evaluated.

References

List all the references here in the following format:

[1] Author, "Title of the article", *Name of the journal*, page no., (year)

[2] Author, "Title of the book", *Name of the publisher*, year

[3] Author, "Title of the article", Web site links

Author List

Specify ***who did what*** to show that particular contributors deserve to have their names printed in the cover page of your report.

Declaration

We hereby declare that all the work done in this project titled "XXX" is of our independent effort as a group.

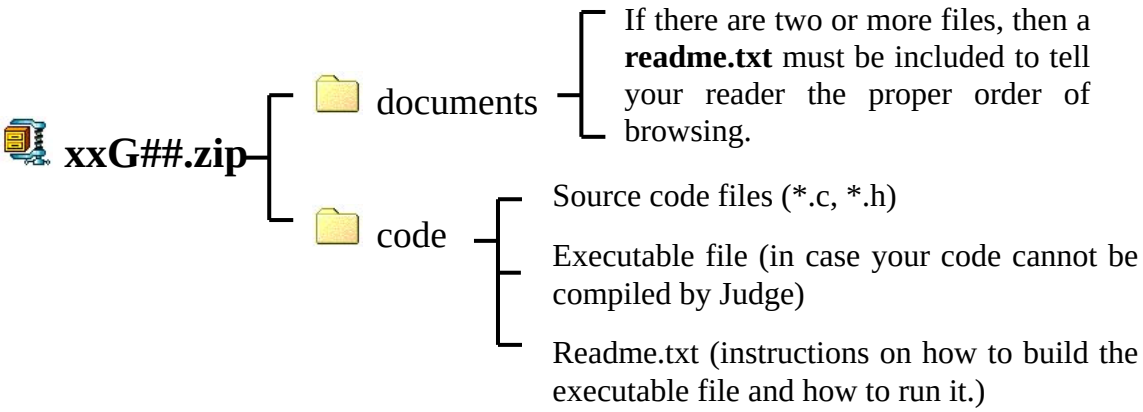
Signatures

Each author must sign his/her name here.

Please keep in mind that these are the “minimum” requirements. Other requirements will be specified according to each project assignment.

Hand-in

Each group is supposed to hand in a zipped file named as **Teacher_G##.zip**, where ## is the two-digit group number which will be given to you after your group is confirmed (for example, **cy_G08.zip** for group 8 in the class of the instructor "cy"). The zipped file must contain the following:



If no coding is required, you may ignore the "code" folder.

Note: Your report document must be saved as a PDF file. The names of your report document and your source code file must be in the format "***Teacher2017_YourGroupID_ProjectNumber.****". For example, "**cy2017_G03_P2.pdf**" is considered to be the report for Project 2 by Group 03, and the instructor is represented by "cy".

Submit to your Teacher

Project reports are supposed to be submitted through the online system at http://www.cs.zju.edu.cn/ds/ with your group account which will be given to you after your group is confirmed.

Submit for Peer Review

For peer review you are supposed to submit your work through the online system at http://ds.z-mou.com/ with your group account which will be given to you after your group is confirmed. ***Your names must NOT appear in any of your submitted documents. Any leak of group member identification will be considered as a fraud, and as a consequence the group will be graded zero.***

After the deadline of submitting your project, the peer review begins. You will see your assignments and must complete your review work before the deadline.

Late Penalty

On http://www.cs.zju.edu.cn/ds/ , each assignment is due at 10:00pm on a specified date. The door for submission will be closed automatically afterwards. Late assignments will have to be sent to your instructor through email (e.g. Yue Chen's students are supposed to send email to chenyue@zju.edu.cn). The assignments received between 10:01pm – 11:59pm on the day they are due will be penalized 5% of the points on that lab. After the due date, the penalty will be 10% for each day they are late.

For the peer review, there is **NO REMEDY**. Any team that misses the deadline will be graded zero automatically.

Presentation

The minimum contents of your presentation must include:

1. title of the project;
2. introduction of the problem;
3. the key data structures and algorithms involved to solve the problem;
4. testing results;
5. conclusion and comments.

Presentations will be given at the class meetings. The order of presentations will be decided randomly. The first team has at most 20 minutes while the other two have 15 minutes each. There will be a 5% penalty for exceeding the time limit. Please ***do not repeat*** what has been stated by the previous team(s). Concentrate on your unique point of view.

All the contributors must be present at the classroom 15 minutes earlier to have the computer ready and the speaker decided. Late penalty is 5% for each minute. The speaker who represents the team will be ***randomly*** chosen from all the contributors. A team member will be graded ***zero*** if he/she has no contribution to the team's project report or is absent from presentation without any acceptable reason.

Each group will evaluate the other groups' performances and fill in the following grading table.

Grade for group _____

- Quality of Presented Materials:

( )⓪ Not acceptable; ( )① Below average; ( )② Above average; ( )③ Good.

- Presentation Correctness:

( )⓪ Absent;
( )① Wrong subject;
( )② Too many mistakes;
( )③ Acceptable with few mistakes;
( )④ Correct but less than perfect on Q&A;
( )⑤ Perfect.

- Presentation Clearness:

( )⓪ Absent || Not acceptable; ( )① Average; ( )② Good.

For each group, let p_1 be the average points given by the other groups with the maximum and minimum points taken off; and let p_2 be the points given by the instructor, the final points obtained will be $(p_1 + p_2) / 2$.

If a team has to delay their presentation to another week, the late penalty will be 50% for each week they are late.