

Tasks for Question 1: 25 marks

Submission: You must include the `.tex` template document and the `bash` script in your `tar.gz` file for submission. More files can be included, but these are the minimum.

You are a tutor in CSC3333 Software Engineering 3. Your task is create a `bash` shell script that reads in student marks for an assignment and creates a feedback PDF file that includes the marks, comments, student IDs and student name. Your script will read in a template `.tex` document and create the output PDFs.

- You are provided two comma-separated files; `Students.txt` which contains student IDs and student names and `Marks.txt` which has a student ID, marks for each of 3 questions and some comments.
- You do not need to error-check the contents of the files. For example, you can assume that the student IDs are present correctly in each file and the marks are correctly integers 0-10.
- All student numbers are assumed to start with a `u`.

Your tasks for this assignment:

1. Create a `.tex` document called `feedbackTemplate.tex`. Your template `.tex` document should compile using `pdflatex` and look as similar as possible to the example `feedbackTemplate.pdf` provided. It may compile with *warnings* but the compile should not stop with *errors*. (6 marks)
2. Write a `bash` script called `userid_q1.sh` where `userid` is your student ID. The script takes no arguments, and it must perform the following tasks:
 - Verify that the input files `Students.txt` and `Marks.txt` exist and can be read by the script otherwise exit. (1 marks)
 - Verify that `Marks.txt` is not empty, otherwise exit (1 marks)
 - Verify that `feedbackTemplate.tex` document exists, otherwise exit (1 marks)
 - Verify that the output directory `OUTPUT` exists, otherwise exit (1 marks)

- For each student, the script must produce a `.tex` document which replaces the placeholder information (marks for each question, total marks, comments, student ID and name) in the `feedbackTemplate.tex` file. This file should be called `studentid.tex` where `studentid` is the student's id number. (6 marks)
 - Compile the `.tex` documents using `pdflatex` and the resulting `.pdf` file should be placed in the `OUTPUT` directory. (3 marks)
 - Clean up the intermediate files (e.g. `.aux`, etc), and remove the created `studentid.tex` document. (2 marks)
 - At each step, inform the user of what is happening. All other output and errors from other commands should be suppressed. (2 marks)
3. Your script should contain comments which explain the code for the reader. (2 marks)

Notes:

- You should make use of `sed` in this question. You may use piped `sed` commands or a `sed` script if you prefer.
- An example output from a sample solution is included. However, your status messages may be customized yourself
- Commands used in the script must be standard Linux utilities as described in the course.

END OF QUESTION 1