FIT2107
Week 3 Workshop
Black Box Testing

Note: as before, make sure you create a Google doc for your answers, and share them with the other members of your group *and* your tutor!

Question 1 - category-partition testing

Please attempt part 'a' of the question before you come to the lab!

For each part, try and work on an answer individually, then discuss your answers in your groups and see if you can reach a consensus to put in the Google doc. Your workshop facilitator has a copy of the marking scheme for this question and will discuss answers with you.

Below is an (simplified) description of the csplit command – a command-line utility present on all Unix systems.

NAME
csplit - split files based on context
SYNOPSIS
*[UP] csplit **[**-ks**][**-f prefix**][**-n number**]** file arg1 ...argn*
DESCRIPTION
The csplit utility shall read the file named by the file operand, write all or part of that file into other files as directed by the arg operands, and write the sizes of the files.
OPTIONS
The following options shall be supported:

***-f** `prefix`*

*Name the created files `prefix`**00**, `prefix`**01**, ..., `prefix`n. The default is **xx00** ... **xx** n.*

-k
Leave previously created files intact. By default, csplit shall remove created files if an error occurs.

-n number
Use number decimal digits to form filenames for the file pieces. The default shall be 2.

OPERANDS

The following operands shall be supported:

file

The pathname of a text file to be split. This operand is MANDATORY. An error shall be reported if the file is not present or readable.

The operands arg1 ... argn can be a combination of the following:

/text/

A file shall be created using the content of the lines from the current line up to, but not including, the line that contains text from the evaluation of the regular expression with offset, if any, applied.

line_no

Create a file from the current line up to (but not including) the line number line_no. Lines in the file shall be numbered starting at one. The current line becomes line_no.

{num}

> *Repeat operand. This operand can follow any of the operands described previously. If it follows a text type operand, that operand shall be applied num more times. If it follows a line_no operand, the file shall be split every line_no lines, num times, from that point.*

An error shall be reported if an operand does not reference a line between the current position and the end of the file.

a) Write down a set of categories and their corresponding choices for testing this version of `csplit`. Explain your reasoning.

b) How many test frames would result from your chosen categories and choices? Are all of these test frames valid?

c) Choose three test frames, and for those test frames, write down a test case based on it. For brevity, you may omit writing down the entire contents of any text files in the input or output, but you must make clear what those files would contain. *Note: for your own benefit, choose three "different" test frames rather than three very similar ones. The original question only asked for a single test case.*

d) Do you think that a test set created using your categories and choices is likely to be a good one for this program? Explain why or why not in about a paragraph. Consider both effectiveness and efficiency.