Shawn Choo Sze Juin 1005128 Software Testing Mini Campaign Week 9

Equivalence Class Partitioning, Boundary Value Analysis

The equivalence classes and examples of boundary/middle values are selected in the context of blackbox testing.

Equivalence Class Partitioning	Boundary Value Analysis	Explanation
Filename format and extension	**For Valid filename:** - file1.csv (Middle value) - xxxxxxxxxxxxfile1.csv (Ends with .csv, boundary value) (Max length filename, boundary value)	For the inputs, the program requires a valid CSV format file to be able to read the data. As such the valid filenames should end with ".csv" as a boundary case.
	For Invalid filename: - `file `?!"#".txt / `file `?!"#".png (Middle value) - fi/le.csv (Only 1 extra special character, boundary value)	Invalid filenames would be unreadable by the program and the file cannot be found if given a wrong path. Additionally, special characters are invalid for filenames which would make the file unreadable. Wrong file format such as .txt or .png etc are also invalid and is also another boundary case.
CSV column data, e.g. Customer: "ID##"	**For Valid Customer ID:** - ID10 (Middle value) - ID1 (Exactly an "ID" at the start, boundary value)	Some fields such as Customer ID has a specific format that should be accounted for before comparison of the 2 CSV files. In the case of Customer ID, the value should contain "ID" at the start.
	For Invalid Customer ID: - I23 (Middle value) - I45D (No "ID" at start, boundary value)	If the content of the field does not adhere to the format type such as ID-## (Customer ID) or $-Numeric (balance values) etc, then we are able to test if the program is accounting for these cases specifically. The boundary value is specific to each column with their own specific format.
Same number of columns for CSV files, e.g. 3 columns each	**For Valid CSV column pair, first row:** - "Customer ID#", "Account No.", "Balance" (Middle value)	The program compares 2 CSV files with the same type of columns and check the data accordingly. Thus, if there are 3 columns, the first row of both files should have 2 commas to separate the 3 column data.

	- “A”, “B”, “C” (Exactly 2 commas separating 3 column values, boundary value)	
	<u>For Invalid CSV column pair:</u> - “Customer”“Account No.”, Balance (Middle value) - “Customer”, “Account No.” (1 or 3 commas, boundary value)	If the 2 CSV files do not have the same number of columns, the program is unable to compare the files. This results in an ‘index out of range’ error. Thus, in the case of 3 columns, the boundary case would be 1 comma more or less of 2 commas separating the column values.