

## **Fuzzing Design**

I will create 4 different fuzzing tests based on the 4 mutation operators

- Flipping a bit
- Trimming
- Swapping characters
- Inserting Characters

Flipping a bit: I will take a randomly selected row and change the account number, currency, account type, or balance at random and write it back to the file, editing the CSV file, saving it as a copy. Only 1 change will be made to the file.

Trimming: for trimming I shall simply cut off the lower portion of the CSV file at a randomly selected line and test the comparison.

Swapping characters: I shall simply move 1 random row of the CSV file to after another random row and save it as a copy before testing the comparison

Inserting characters: I shall add 1 new row to the CSV file with random values and save it as a copy to be compared.