

## Report

Wang Weixiao 1155141608

Cobol is much more convenient in implementing the ATM but C will be better in implementing the central machine. The variables with pre-defined type and length will be useful in handling inputs in certain type and size, the flexibility of C instead make it hard to control the size of inputs. Also, Cobol can read a file in a certain format, that makes it very easy to conduct tasks like finding accounts or checking balances.

While, All variables in Cobol is global, makes it difficult to handle the values when the file is large. There is also no functions and return values, we can only use go to build the structure of our codes, makes it hard to read and debug, and because of no return values, the codes can only deal with global values, this makes users hard to write too-they need to define lots of variables at the beginning of codes.

Cobol do not have functions like most of modern languages, so when the code is longer, lots of "go to" statement makes it very complex and hard to modify, just like the spaghetti code taught in class. It also have much more statements in coding, makes it not so convenient to write, we need add many more things when doing calculation or condition hadling.

Also, the file i/o in Cobol is not flexible, we need to use a new file to conduct the sort part, and because we don't have new files to write on, we need use some files over and over again, store different data in different stage in the program, this is a very dangerous way to write code. So C become much more smart to handling the recursion and file I/O makes it convenient in merge, sort and generate new files. Also its seems easy to write such program in Cobol because the convenience of manage variables, the implicit structure and complicated pre-statements also make me hard to write. And because Cobol is not so popular these days, its really hard to find the solution of certain bugs, and examples for certain applications, people may be able learn C or python themselves online, but never Cobol, so its very unfriendly to users that not expert on it.