

SWEN 503  
Mauricio Hernandez  
300412504

## LANGUAGE COMPARISON

I chose to implement a very simple contact list program in bash and Python.

I chose bash because I am a Mac user and Unix is native to the system. I found using bash to be very efficient, the commands such as grep or sed already do the hard tasks for the programmer. It is a truly amazing tool to automate system tasks. However for doing a program such as a contact list it is not ideal at all. Bash is only a command language to mainly automate system tasks that you could always do manually as a user. It would be very difficult to write a complex program; and to maintain and expand the program would be a nightmare. Personally the main challenges I had were syntax and debugging. The biggest advantage I see was the natural integration with my OS.

Python on the other hand was ideal to implement this task. The biggest advantage is that it already offers the data structure of dictionaries, which syntax is same as JSON. Python gives you a lot of flexibility to expand and maintain the program; the program can get as complex as you want. It also integrates with every latest industry standards and has thousands of up to date documentation and tutorials. Probably the bad point is that you need to code everything; you cannot rely in any command unlike bash. Coding a simple interaction such as selecting an option was much harder in Python than in bash (I actually had to use tkinter module and create a basic GUI).

As a conclusion, both technologies are amazing; but both have very different applications. Using Python to rename files in your system would be extremely silly when you can use bash to do so; and trying to create a complex program in bash makes no sense when you have Python. In short Python has all the advantages of being a robust OOP language; while bash has all the advantages of talking directly to your OS.