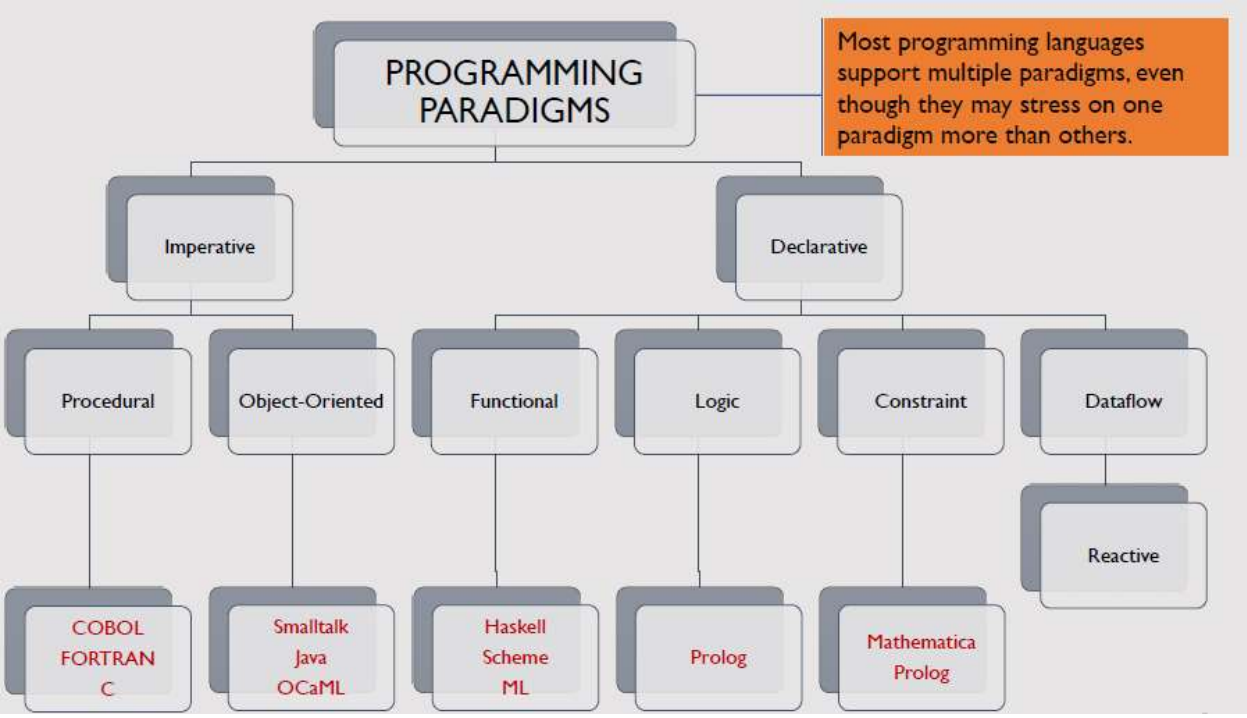
CSE216 – Programming Abstractions
Recitation 1

Question 1:

Get together with a classmate whose principal programming experience is with a language in a different category (see the figure below). (If your experience is mostly in C, for example, you might search out someone with experience in Lisp.) Compare notes. What are the easiest and most difficult aspects of programming, in each of your experiences? Pick a simple problem (e.g., sorting, or identification of connected components in a graph) and solve it using each of your favorite languages. Which solution is more elegant (do the two of you agree)? Which is faster? Why?



Question 2:

Check whether your computer has a C compiler **gcc** installed. If not, install gcc on your computer using appropriate instructions as follows:

MacBook users:
https://www.mkyong.com/mac/how-to-install-gcc-compiler-on-mac-os-x/

Windows users:
http://www.codebind.com/cprogramming/install-mingw-windows-10-gcc/

Write the following program in a C file “consoleio.c”.

```
#include <stdio.h>
#include <conio.h>

int main ()
{
  char initial;
  char anykey;

   printf ("Enter your initial:\t");
   scanf ("%c",&initial);
   printf ("Your initial is %c\n\n\n", initial);
   printf ("Enter any key to exit.");
   getch();
}
```

Compile this program with the -S command as follows:

gcc -S consoleio.c

Try to understand the assembly level language code generated in file consoleio.s. Refer to following link for understanding meaning of assembly language instructions.

http://web.mit.edu/rhel-doc/3/rhel-as-en-3/