Course	60-256	October 25, 2014
Instructor	Dr. B. Boufama	
Assignment	04	
Due date	November 3, 11am	

Using Unix sustems calls, *fork(), wait(), read() and write(), write a C program for integer-basic arithmetics to perform the followings:*

- *writes the message "This program makes simple arithmetics",*
- *gets in an infinite loop then*
  1. *writes the message "Enter an arithmetic statement, e.g., 34 + 132 > ",*
  2. *reads the whole input line,*
  3. *forks and*
     - *the parent writes the message "Created a child to make your operation, waiting" then calls wait() to wait for its child.*
     - *the child process calls the function childFunction(char *) and never returns.*
  4. *the child, through childFunction(char *line),*
     - *writes the message "I am a child working for my parent"*
     - *uses sscanf() to convert the input line into an integer, a character and an integer, respectively.*
     - *in case of wrong statement, the child calls exit(50)*
     - *in case of division by zero, the child calls exit(100)*
     - *in case of a wrong op the child calls exit(200)*
     - *otherwise, it performs the appropriate arithmetic operation,*
     - *uses sprint() to create an output buffer consisting of n1 op n2 = result,*
     - *writes the output bufferto the screen*
     - *calls exit(0)*
  5. *once the child terminates, the parent checks the returned status value and if it is 50, 100 or 200, writes "Wrong statement", "Division by zero" or "Wrong operator", respectively.*
  6. *the parent goes back to 1.*

Important:

- *All reads/writes must be done using read()/write()*
- *You can use the returned value of sscanf() for detecting a "Wrong statement"*
- *This assignment should be emailed to* **smith15o@uwindsor.ca**
- *You can download and run the executable of this program for demonstration: http://boufama.myweb.cs.uwindsor.ca/256/assignments/Assign04/solAssign04.exe*