Save C++ files as .cpp

To compile: g++ -o (the name you want) (Your file and its.cpp extension)

To run a function: ./(name of your funcion) g++ -o mySerial SerialPortCode2.cpp

To open virtual serial ports:

Terminal A→ socat -d -d pty,raw,echo=0 pty,raw,echo=0 //Execute socat; leave in background//

Terminal B→ cat< /dev/pts/2 //listening to terminal 2//

Terminal C→ echo “*Text here*”> /dev/pts/1

Cat = listening to a serial port

Echo = writing to a serial port

Mini computer: (4 serial ports)

USB 1: audio in/out (will register as two ports)

USB 2: speaker

USB 3: Arduino

USB 4: keyboard/ free

Addressing non virtual serial port: /dev/ttyUSB1 (CPU will assign USB#)

#include <vector>

#include <iostream>

#include <sstream>

#include <fstream>

using namespace std;

int main(){

string instruction;

vector<string> vect;

ifstream inFile;

inFile.open("myFile.txt");

int i = 0;

if(inFile.is\_open()){

//cout<<"test"<<endl;

while(inFile>>instruction){

istringstream ss(instruction);

string token;

while(getline(ss,token,',')){

vect.push\_back(token);

cout<<vect[i]<<endl;

i++;

}

}

}

//cout << "Running" << endl;

return 0;

}

//Serial.cpp below

#include<stdio.h>

#include<string.h>

#include<unistd.h>

#include<fcntl.h>

#include<errno.h>

#include<termios.h>

int open\_port(void){

int fd; //file description for port

fd = open("/dev/pts/3", O\_RDWR | O\_NOCTTY | O\_NDELAY ); //this opens the specified serial port

if (fd == -1){

perror("open\_port: Unalbe to open /dev/pts/3 - "); //Could not open port

}

else{

fcntl(fd, F\_SETFL, 0);

printf("\nPort opened succesfully!\n");

}

return (fd);

}

int write\_port(int fd,char \*buffer\_write, size\_t buffer\_size){

int bytes\_write = write(fd, buffer\_write, buffer\_size);

if(bytes\_write < 0){

fputs("write() of bytes failed!\n", stderr);

}

return(bytes\_write);

}

int read\_port(int fd, char \*buffer\_read,size\_t buffer\_size){

int bytes\_read = read(fd, buffer\_read, buffer\_size);

return(bytes\_read);

}

void close\_port(int fd){

close(fd);

}

int main(){

int fd = open\_port(); //Function to open serial port

char buffer\_write[] = "\nwhat is your name?:";

char buffer\_read[32];

int bytes\_write = write\_port(fd, buffer\_write, sizeof(buffer\_write)); //Function to write to serial port

int bytes\_read = read\_port(fd, buffer\_read, sizeof(buffer\_read)); //Function to read from serial Port

for(int j=0; j< bytes\_read; j++){ //Print read message recieved from serial port

printf("%c",buffer\_read[j]);

}

close\_port(fd); // Function to close Serial Port

}