**Raspberry Pi session – 27th April**

**What we are going to do today**

1. Get python program that reads serial port working, see attached program (SerialRead.py)
2. Install MySQL server on Pi. You will be asked for a root password as part of the install, please user CoderDojo as password

*sudo apt-get install mysql-server*

1. Install MySQL library for Python

*sudo apt-get install python-mysqldb*

1. Log into MySQL and create table

*mysql -u root –p*

CREATE TABLE IF NOT EXISTS RndNums (Id INT PRIMARY KEY AUTO\_IMCREMENT, RndNum VARCHAR(2)

1. Create user (testuser) and set password (test623)

*CREATE USER 'testuser'@'localhost' IDENTIFIED BY 'test623';*

1. Grant privileges to testuser on all tables in testdb database

*GRANT ALL ON testdb.\* TO 'testuser'@'localhost';*

1. Query new table

*SELECT \* FROM RndNums;*

1. Modify Python program to include the following functionality. See program SerialDB.py
2. database functionality to write values from Serial port to database table.
3. functionality to write to serial port to turn led on Arduino on/off. If value is greater than 50 and turn led off if value is less than 50.
4. After the program has run, use a terminal window to start MySQL and query table to check that values have been inserted. See steps 4 & 7 above