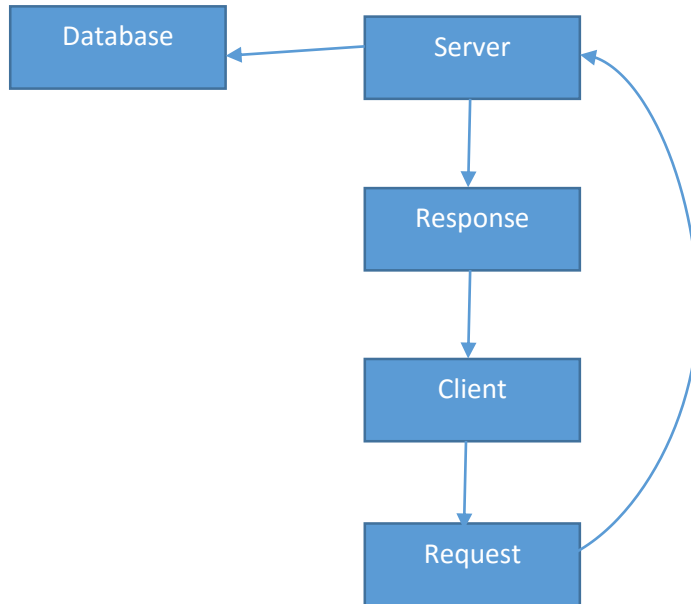# COMP3331 Assignment 1

Assignment has been done up to step 3 that include both push and pull steps

A diagram is given below to show how the system works

```
Database  <----  Server  ----.
                   |          |
                   v          |
                Response      |
                   |          |
                   v          |
                 Client       |
                   |          |
                   v          |
                Request  -----'
```

The Database is built such that each line in a page can hold a discussion thread so basically the database contains a collection of pages which contain a collection of lines which contain a collection of posts

The Server behaves such that it contains a list of responses(public Interface) with each response class containing sufficient information for its purposes. The same applies to the Client such that it contains a list of request(public abstract class) with each request class containing sufficient information.

 When the client connects to the server a new thread is created to handle that connection. Since there is a possibility that there could be 3 parallel threads for a client. One that listens and two that send. The ping request and keyboard request could occur at the same time. Which would result in both messages sent down the same stream and creating a corrupt message. To avoid this a synchronised write function could be used but this causes a small delay. If the keyboard request are large then this delay may be visible.