

## **Individual report – Jack Williams (jw15326)**

<b>Group Member</b>	<b>Contribution (%)</b>
Jack Williams	33.3
Liam Wardle	33.3
Durgesh Pareva	33.3

Initially, it was a steep learning curve to understand how each section of code is written and how they interact with each-other and ultimately allow for the construction of the server and database. However, methods became easier to implement once we understood the specific commands required in order to perform SQL queries, for example the use of ResultSet, and PreparedStatement to prevent SQL injection.

A pattern to the general format of the methods emerged for each specific task, for example the 'create' methods followed a rule of checking if the objects such as topic or person exist, and if so, a query such as "INSERT INTO Post values (null,?,?,?,?)"; enables the input of values to create a row in the table. This pattern meant that methods for creating a post, forum and person were similar, and quickly implemented and tested. Therefore, I found the creation and deletion of rows the easiest methods to implement, often requiring the fewest lines of code.

I found that as I began to understand how to implement the methods, they became harder and more detailed, involving multiple queries and different methods in order to achieve the desired outcome, and therefore I was constantly required to expand my knowledge on the necessary statements and code required.

The schema for the database was required to be changed and updated throughout the project, as we became aware of extra criteria required, for example the addition of tables such as TopicLikers, PostLikers and TopicFavourites. We also took decisions such as how to determine the post number, for example we decided that it was best for java to handle which post number the post is in a specific topic, as opposed to storing .

During this coursework, the assignment has provided an insight into how a database performs queries as to store and provide information. I have also had the chance to study code, whose contents I did not fully understand until I had a chance to run the server and follow the commands in the Server.java file. This proved a useful method in tracing the pathways in which methods were called.

I have found JDBC relatively easy to handle. With often reference to documentation, the JDBC API has provided a straight-forward means of performing actions against a database.