**Architecture Pattern Chosen and Justification**

Three-tier software architecture pattern is used for the case study because the 3-tier architectures provides a number of benefits for production and development by establishing and modularising the user interface, business logic, as well as the data storage layers. It also allows increased flexibility to developers as they are able to update or develop a specific functionality in independence of the other functionalities.

**Logical Diagram**

Database layer

Business Logic

User Interface