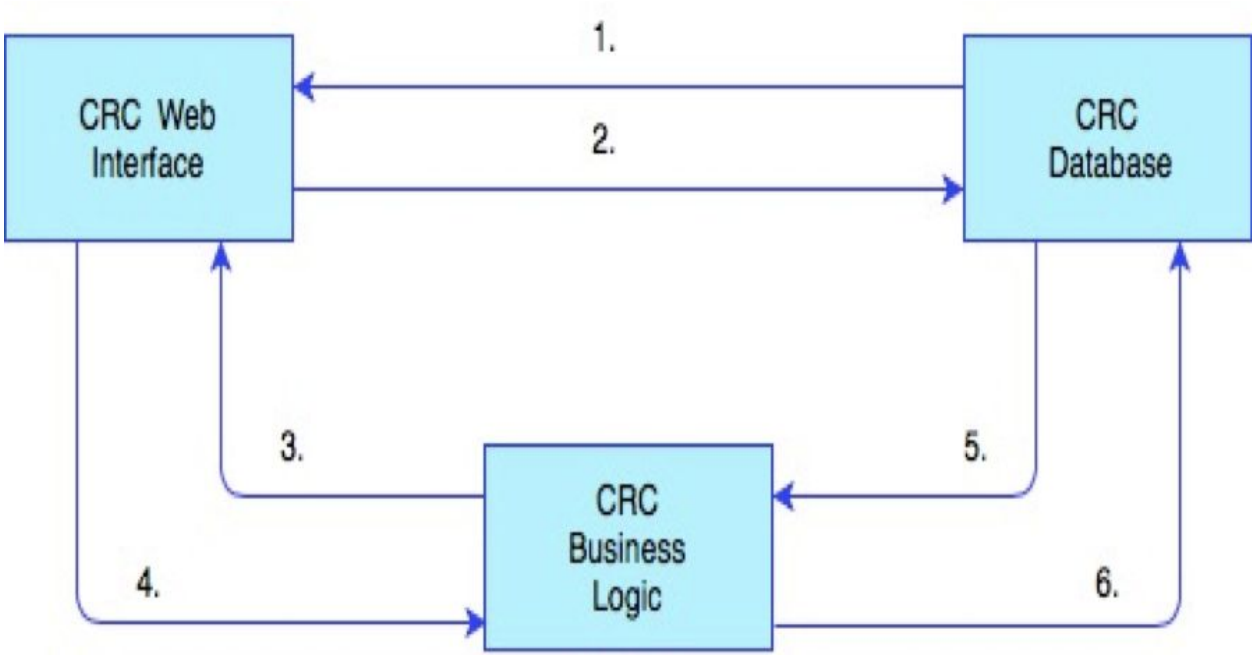
Homework for Week 6

1. 3-tier Architecture

2. 1 Logical Diagram

In considering specific requirements from Car Rental Company, the logical software diagram implemented for this scenario will be of three-tier pattern. More specifically, the board of CRC expects the systems to provide few functions namely, to browse the numbers of different cars that are picked up or returned in some stored and car recommendations to customers. The above requirements can be fulfilled by utilising a separate business logic (here CRC Business Logic) which will be connected with web interface (here CRC Web Interface) and database (here CRC Database). As a result, the pattern of software architecture of CRC is three-tier. The following image illustrates the flow of Logical Software Diagram of Car Rental Company (CRC).

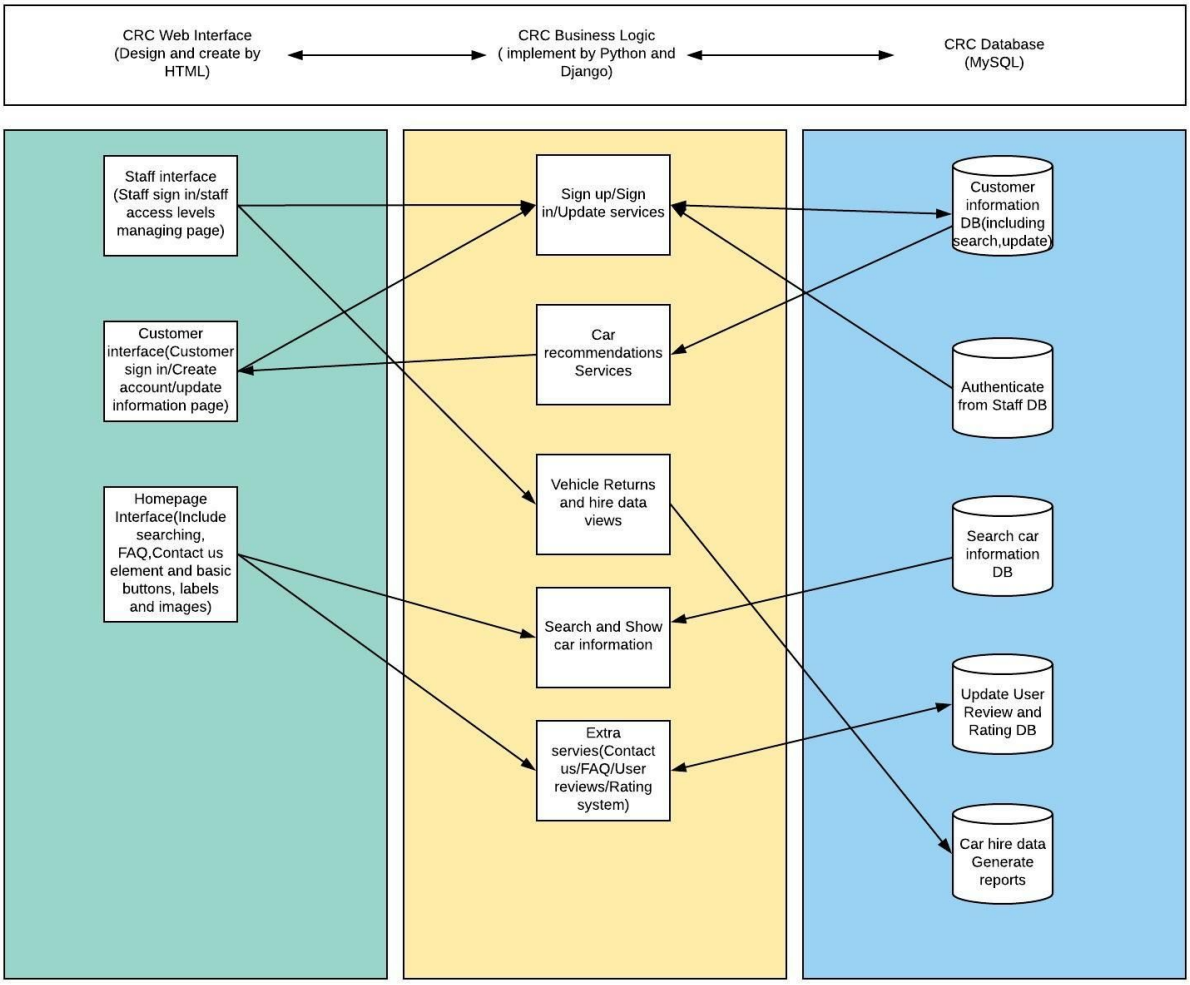


The Logical Software Diagram of CRC have various flows (here numerical represented as 1, 2, 3, 4, 5 and 6) within CRC Web Interface, CRC Database, CRC Business Logic.

More specifically, the flow 1 illustrates the requirement of CRC board for recording the history of rental services of CRC's customers. Over here, the board will only need aid from CRC Web Interface and CRC Database. The flow 3, 4, 5 and 6 illustrates the requirement of CRC board to browse the numbers of different cars that are picked up or returned in some stored and car recommendations to customers utilising CRC Business Logic (technical) and fetching the results from CRC Database and again responding back to CRC Web Interface were member of CRC board is waiting for answer.

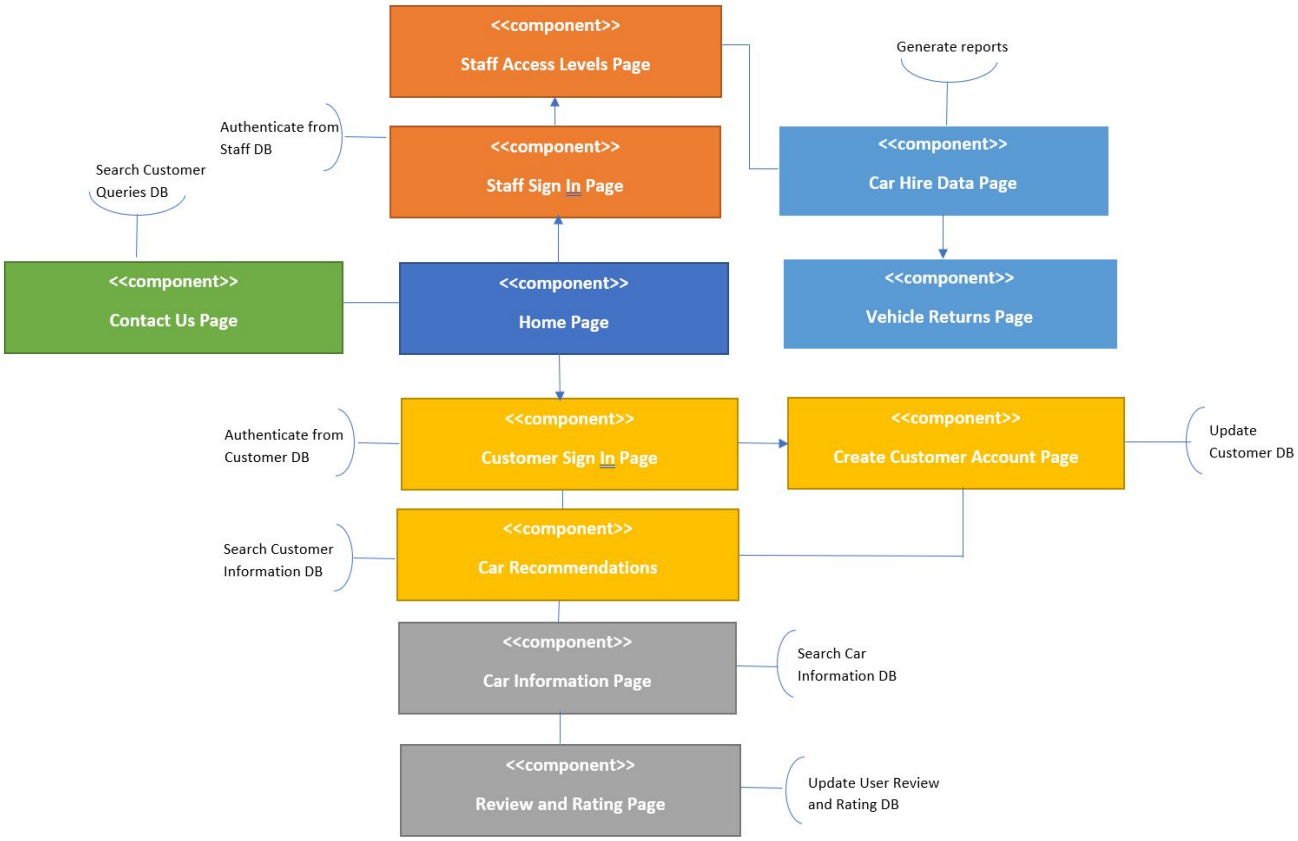
2.2 Physical diagram

The physical diagram explains more on the CRC's logical diagram. It indicated how every one of these layers actualized in our project in a specific and technical way.

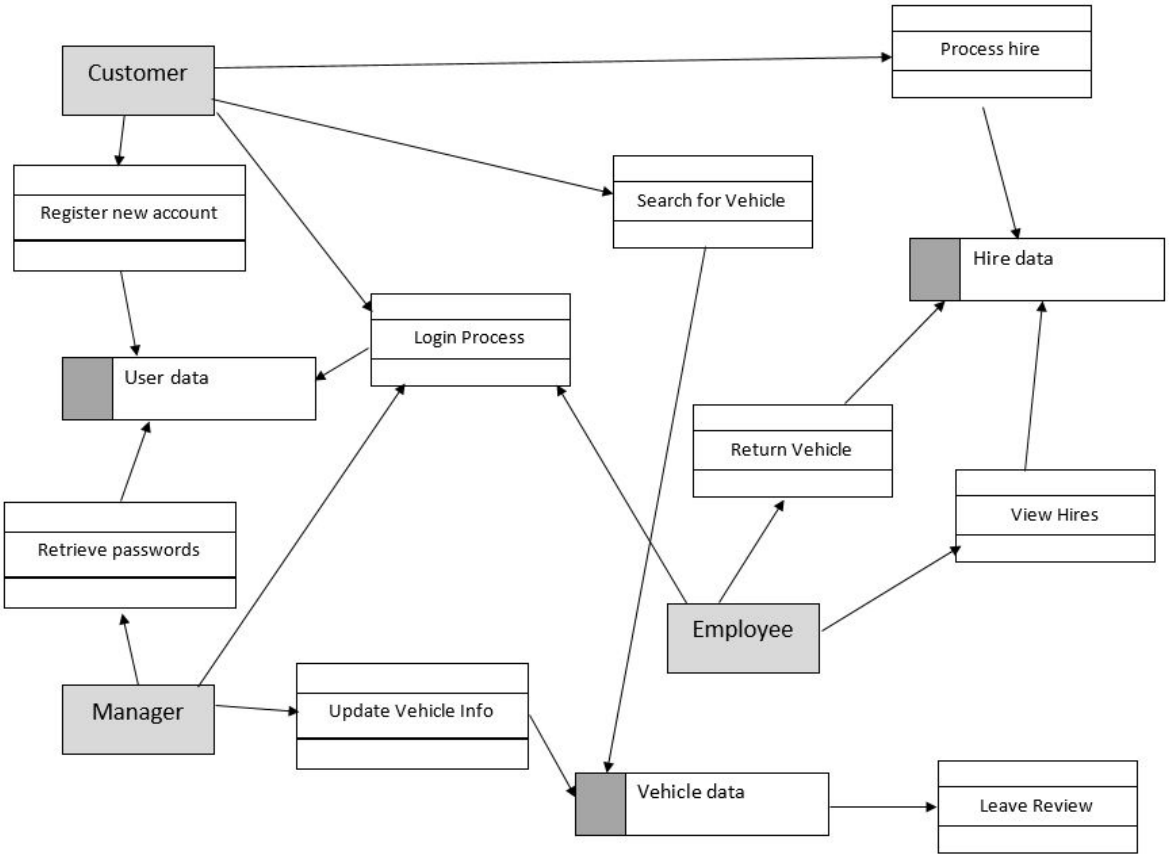


3. Component Diagram

The component diagram is based on the major web pages to have a high-order view of the system and show the structural relationships between the components and database connections.



4. Data Flow Diagram


Customer
Process hire
Register new account
Search for Vehicle
Hire data
Login Process
User data
Return Vehicle
View Hires
Retrieve passwords
Employee
Manager
Update Vehicle Info
Vehicle data
Leave Review