|  |  |  |
| --- | --- | --- |
| Object | Loyal Point | This function allow user view customer loyal point. |
| Sale | All function relate to sale activities which perform by cashier |
| Category | Contain functions such as view, add, update and remove category supports staff performs manage activities. |
| Product | Contain functions such as view, add, update and remove product supports staff performs manage activities. |
| Synchronize data | These functions contain set time for auto synchronize activities or manually synchronize |
| Statistical analysis | Use by staff to collect sales data and generates analysis for demand |
| User account | Use by administrator, contain add, update information of system users |
| Customer | Use by administrator, contain add, update information of system customers. |

1. **Architecture background:**

Explain the reason that we designed. It does include:

1. Rationale design

The shared-data style was used because it is useful whenever various data items have multiple accessors and persistence. Use of this style decouples the producer of the data from the consumers of the data; this system has more than one data server. The data is naturally or historically, partitioned into separable stores, so we can replicated over several server to improve availability through redundancy tactic.

1. Analysis of results

**In Pipe-and-Filter Style:** the conveyance of data between filters in the server will be performed by the pipe. A pipe is a connector that conveys streams of data from the output port of one filter to the input port of another filter. Pipes connect filter output ports to filter input ports. A filter transforms data that it receives through one or more pipes and transmits the result through one or more pipes. In this system, the filter “Sales” will receive data from two filter “product” and “loyal point” to support its sale activities, these data will be transfer through pipe.

1. Assumptions reflected in the design

* There will have reserve database server in store, which is responsible for storing product information daily and sales information to sync up to Head Office server and performing the redundancy while Head Office server going down.

1. **Glossary of terms:**

**DB Server:** Database Server is a computer program that provides database services to other computer programs or computers.

**POS Terminal:** A point-of-sale terminal is a computerized replacement for a cash register.