# Advance System Design and Implementation: A Consumer Products Company Description Its Application to Support Retail Sales and Architecture Design

ALLYSA ASHLEY M. PALAMING
Master in Information Technology
Tarlac State University

**Abstract:**

   Locate a consumer products company on the web and read its company description (so that you get a good understanding of the geographic locations of the company). Pretend that the company is about to create a new application to support retail sales over the web. Create an architecture design that depicts the locations that would include components that support this application.

**Key words:** Advance System Design and Implementation, Consumer Products Company, Retail Sales, Architecture Design

## BACKGROUND

In our fast growing society, most of the system developers today are developing web-based systems that are spread across two or more computers that enable to interact with each other or with the web server over the Internet. Therefore the important step in the design phase is the creation of the architecture design which it is the plan for how the system will be distributed across the computers and what hardware and software will be used for each computer.

Designing architecture can be difficult. Many organizations hire expert consultants or assign very experienced analyst to the task because it takes lots of experience and skills to do it well.

So in creating architecture design there are first things to consider which are the Operational requirements, Performance requirements, Security requirements and Cultural and Political requirements. After that, the designers think about the new application architectures and examine what architectures to be used. Finally, the designer consider how the requirements and architecture can be used to develop the hardware and software specifications that define exactly what hardware and software are needed to support the information system being developed.

## RECOMMENDATION

In the cited situation the following are hereby advanced: The N-tier Architecture is composed of Client, Web Server, Application Server and Database Server. Client handles presentation logic. Client computer makes HTTP request to view pages from the Web server and the web server enable the user to view merchandise for sale by responding with HTML documents. As the user shops, components on the application server are called as needed to allow the user to put items in a shopping cart. Determine item pricing and availability, compute purchase costs, sales tax and shipping costs, authorized payments etc. These elements of business logic are stored on the application server and accessible to any application. The database server manages the data components of the system. Each of these components is separated which makes it easy to spread the different components on different servers and to partition the application logic on a web-oriented server and business-oriented server.

|  | Standard Client | Standard Web Server | Standard Application Server | Standard Database Server |
|---|---|---|---|---|
| Operating System | Window | Linux | Linux | Linux |
| Special Software | Adobe Acrobat Reader | Apache | Java | Oracle |
| Hardware | 40GB disk drive | 80GB disk drive | 80GB disk drive | 250GB disk drive |
|  | Dual-core Pentium | Dual-core Xeon | Dual-core Xeon | Quad-core Xeon |
|  | 17-inch Monitor |  |  |  |
| Network | Broadband | Dual 100Mbps Ethernet | Dual 100 Mbps Ethernet | Dual 100Mbps Ethernet |
|  | Dial-up at 56kbps |  |  |  |

What you can see above, is just a projected hardware and software specifications of the company that is about to create a new application to support retail sales over the web that supports the architecture that is stated above.

## CONCLUSION

In conclusion, the sample consumer products company on the web and its company description is briefly elucidated magnifying its geographic locations. The proposed architecture designs that depict the locations that would include components that support this application are pointed out in the recommendation.