

TRIBHUVAN UNIVERSITY

INSTITUTE OF ENGINEERING

Department of Electronics and Computer Engineering

PULCHOWK CAMPUS

Database Management System Project

on

ComputerBazaar

Project members

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Since we have put a bit of "heart and soul" into the project, Therefore, we hope that our work would be appreciated.

ABSTRACT

There are millions and millions of pages of information floating in this www world, but arranging them in the way the user requires them is a difficult task. So in this project "Computer Bazaar" we have tried to arrange the information about the computer components and accessories available in the Nepali market. So it can be a boon to the users who are interested in buying or collecting the information about computers and its accessories available in Nepali market.

In this rapid moving world time is of the essence. People are engaged in so many activities that they are short of time and energy to carry out any other tasks such as shopping. If someone were to buy a new computer they would have to go to the market and search all the shops. Due to the technological advancements, Pcs and internet are accessible to almost all the people. Thus it would be beneficial and make sense to have the facility of online shopping. It provides a platform where people can shop at any time of day from the convenience of their own home.

This project is a working prototype of e-commerce web application for the sales and listing of computer components and computer parts. This application can maintain a database of all the products in a database and also the login details of users. And can also provide a platform where sales as well as marketing of computer components can be done in an easy and efficient manner.

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INTRODUCTION

Now a days more and more people are using the world wide web. They use it for various purposes from finding information to communication. One of the great areas that the web can used for is in online shopping. In today's world nobody has the luxury of time. Traditional methods of shopping are a waste of time and energy. So an online shopping system can be a great time saver. People can just log into their computers and find information regarding products online from the convenience of their homes. They can easily find what they are looking for and find the best deals without all the hassles of real world shopping.

The web also provides whole new opportunities for businesses to expand in a new horizon. They get a wider audience and a larger market the kind that is not possible through the traditional brick and mortar business. It provides a personalized shopping experience to users and strengthens customer partner relationship. An online store is easy and cheap to establish and easy to maintain. Hence an online store has lots of advantages as compared to the traditional brick and mortar businesses.

Why Computer Bazaar?

There are a lot of websites and web application on the net that provides online shopping as well as online listing of products like amazon.com, yahoo.com, ebay.com. If we talk about sites that provide sales of computer components and peripherals then there are sites like www.computerbrain.com , www.pcshopping.co.za etc. But speaking in the context of Nepal there are very few sites that provides the facility of online sales and listing of computer peripherals. There are sites like www.muncha.com, www.hamrobazar.com but these sites are more general and do not specialize in sales of a particular category of products, so a customer can be quite daunted to use these services. With Computer Bazaar people can easily find what they are looking for relieving the hassle of going to different shops and bargaining for prices. We aim to provide all the information regarding computer peripherals under one platform.

PROBLEM STATEMENT

When ever we want to buy a new computer or upgrade our memory or any other computer parts we have no other choice but go to the market and visit computer shops. We want the cheapest deals so we have to go to more than one shop. This is very time consuming. There are no other alternatives. We may visit online computer stores but these are all based abroad and so there are no websites that caters to the local market. The prices of the components too vary from one shop to another. So a customer may be confused as where to get the best deals.

In the context of Nepal there is a lack of sites that provide customers a rich amount of information about a product that he or she may be interested in purchasing. The number of such sites is close to non existential. The ones that are present are very poor in the sense that they do not provide up to date data and the information is not well managed. So there is a need for such a site that provides rich customer experience with a wealth of information.

OBJECTIVES

The main objective in doing this project was to implement the Database Concepts we learnt in class to Programming experience and to facilitate the process of purchasing computer products and components online. Anyone who is interested in buying computer products or looking to buy a PC or just want to check the market price and find all the information they want.

By doing this project we aim to fulfill the following goals:

- Maintain a comprehensive database of all the computer components and parts separating them in categories.
- Provide up to date listing along with prices of all the computer components available in the market.
- To facilitate the customers in finding the products they are looking for.
- Provide a user friendly interface for easy navigation and accessibility.
- Users can build a customized PC by selecting the components available.
- Users can easily get quotation of all the parts from convenience of their home.

DEVELOPED SYSTEM

Description:

- Visitors will be able to find information about the products they are looking for.
 - All the products will be listed in categories.
 - Each product will have a description like manufactures name, model number, product description, availability, picture and price.
 - A search box is available to find the desired product.
- Visitors will be able to build a custom pc or make a price quotation of a PC.
 - Visitors will be able to build their own custom pc by selecting the parts that they would like to incorporate in their system.
 - A price quotation which shows the computer components along with their price can be created.
- Provide administration area.
 - There will be an administrator who is responsible for adding new products and updating the prices.
 - Deleting the products

METHODOLOGY

Programming Environment

Apache

Apache is a [web server](#) which played a key role in initial growth of the [World Wide Web](#). Apache is primarily used to serve both static content and [dynamic Web pages](#) on the World Wide Web. Apache is the web server component of the popular [XAMPP](#) web server application stack, alongside [MySQL](#), and [PHP](#) programming languages.

PHP

PHP(**PHP Hypertext Preprocessor**) is a scripting language used to create dynamic Web pages. PHP is a widely-used general-purpose scripting language that is especially suited for [Web development](#) and can be embedded into HTML. PHP generally runs on a [web server](#), taking PHP code as its input and creating Web pages as output. PHP can be deployed on most [web servers](#) and on almost every [operating system](#) and [platform](#) free of charge. It is commonly used to extract data out of a database and present it on the Web page. Major advantage of using PHP is it has improved support for [object-oriented programming](#). Performance enhancements, Better support for [MySQL](#) and Error handling via [exceptions](#).

MySql

MySQL is a [multithreaded, multi-user SQL database management system](#) (DBMS). The basic program runs as a server, providing multiuser access to a number of databases. MySql is widely used for Web applications and embedded applications, MySQL is available for free from MySQL AB under the GNU license as well as for a fee without restrictions. MySQL includes a C/C++ interface. There are also ODBC and JDBC drivers available.

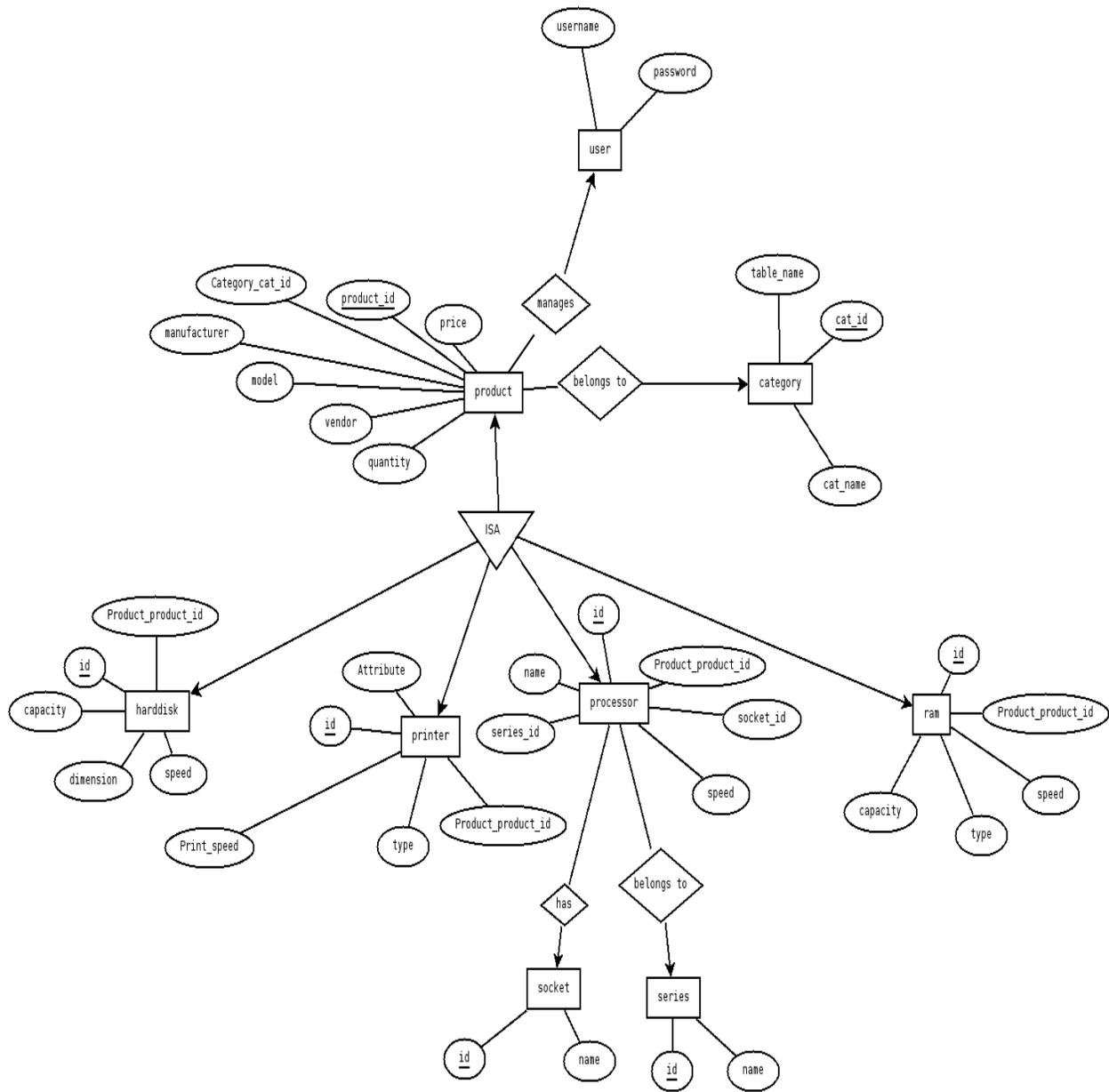
JavaScript

A popular scripting language that is widely supported in Web browsers and other Web tools. It adds interactive functions to HTML pages, which are otherwise static, since HTML is a display language, not a programming language. JavaScript is easier to use than Java, but not as powerful and deals mainly with the elements on the Web page. On the client, JavaScript is maintained as source code embedded into an HTML page. On the server, it is compiled into bytecode (intermediate language), similar to Java programs.

Ajax

AJAX(Asynchronous [Javascript](#) And [XML](#)) is a [web development](#) technique used for creating interactive [web applications](#). The intent is to make web pages feel more responsive by exchanging small amounts of data with the server behind the scenes, so that the entire web page does not have to be reloaded each time the user requests a change. This is intended to increase the web page's interactivity, speed, functionality, and [usability](#).

E-R Diagram



E-R Diagram

Basic MySQL Queries

When we insert a product, at first it inserts data into Product table then the data is inserted into respective table of the product. For example, the following code insert the data of hard disk into the product table and the following codes insert data into respective hard disk table.

```
INSERT INTO
product(product_id,Category_cat_id,model,manufacturer,price,date_,quantity,vendor,features,i
mage)
VALUES(NULL,'$cid', '$model','$manu','$pr',NOW(),'$qty','$ven','$des','$filename');
$result = mysql_query($query) or die ("Couldn't execute query.");
```

```
INSERT INTO
harddisk(id,interface_id,Product_product_id,capacity,dimension,speed)
VALUES(NULL,'$int','$pid','$capac','$dim','$sp');
```

Similarly, for update we display all the data of the selected product and then allow the user to edit the data. For update we first update the product table then update the product specific data table. In the following code we have edited the data related to harddisk.

```
UPDATE product SET
model='$model',manufacturer='$manu',price='$pr',quantity='$qty',vendor='$ven',features='$des'
,image='$filename' WHERE product_id='$pid';

UPDATE harddisk SET interface_id='$int',capacity='$capac',dimension='$dim',speed='$sp'
WHERE Product_product_id='$pid';
```

And for delete, we took product id from user and deleted the data from both product table and product specific data table.

```
DELETE FROM product WHERE product_id ='$pid';

DELETE FROM $tb WHERE Product_product_id ='$pid';
```

We have also used necessary error handling codes while executing query. Which makes error detecting easy.

```
$result=mysql_query($query) or die(mysql_error());
```

SAMPLE OUTPUT

COMPUTER BAZZAR Logout Admin

Home Browse Brand Build PC Contact Us Search

GZ-FA2CA-AJS
- GIGABYTE
- Rs.2600



F5U219v1
- BELKIN
- Rs.1260



PVT84GUDF3
- XFX
- Rs.13600



Latest Products

Please Select a Category

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- Casing
- CPU / Processor
- Input Devices

Welcome To Computer Bazzar

Computer Bazzar is the premiere destination for online computer shopping. Find the best bargains and the most insightful reviews of the latest computer shopping products. Compare specs and prices on PCs, components, peripherals, and gadgets to get a great deal every time you shop. The latest computer shopping products are listed below.

COMPUTER BAZZAR Logout

Home Browse Brand Build PC Contact Us Search

Please Select a Category

- Add Product
- Update Product
- Delete Product
- Logout

Add a Motherboard

Model:

Manufacturer:

Price:

Quantity:

Vendor:

Select image:

Series:

Conclusion

The project was started with a view of implementing the different database concepts we learnt in class, rather than developing a e-commerce portal. In this project we used Apache, PHP, MySQL, Ajax and Java Script. There has been lots of ups and downs throughout the project. Many times the problem seemed impossible to solve but we didn't give up and always found a new techniques to solve it. Overall it was a great learning experience, were we got familiar with different programming environment and implemented the database concepts learned. Developing web based system has become a de-facto in todays world. So programing experience we got form this project will surely be helpful in future.

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