B561- Online Computer Retailer Store

<div align="right">By Group 3</div>

1. Main Goal

An implementation of an online retailer store selling laptops and laptop accessories

2. Functionalities

All the functions are for two kinds of participants taken into consideration.

2.1 Customer

A customer is able to purchase two kinds of product: laptops and laptop accessories.

(1) Home page: The website presents a potential customer with two options:
"Laptops" and "Accessories". In the same page, a recommended list of products is also presented.

(2) Buying Accessory: If user clicks on "accessories", a linked page is invoked displaying available accessories such as mouse, batteries, cases and bags, projectors, speakers etc. When user clicks on a certain product, all the available items under that product are displayed. Each page will be designed to display maximum of 15 products.

(3) Buying laptop: On the other hand if "Laptops" is chosen, a linked page appears showcasing products for three different types of users as described below

- Home User: Users who require only a balanced overall performance.
- Business: To this group, security and mobility of a laptop are the key points.
- Gamer: Laptops with high quality of graphics and processors will be mostly recommended to this type of users.

a) *Search*: Customers who require specific configuration can do so by filling a form that enquires most common criteria considered before selecting a laptop. If user doesn't fill any field in this form, he will be shown all the laptops in our database. Our interface will be similar to Amazon's search interface as shown in Fig.1

Fig.1 An example of the search interface of amazon.com

When searching for a specific configured laptop, features listed below will be used to filter the results.

- Brand
- Screen size
- Processor
- RAM

- GPU
- Price
- Hard drive size
- Customer rating

b) *Display filtered results*: As a result, customers are provided with a list of laptops that satisfy the criteria, or all the laptops in our database if none of the features' value is specified. Laptops that are displayed will have the following information:

- Thumbnail
- Price
- In stock

- Basic features (brand, model number)
- Customer rating

c) *View laptop detail*: By clicking on the thumbnail, customers are navigated to detailed description of the laptop.

d*) Add to cart*: An option of "add to cart" is provided here. Every time "add to cart" is clicked, the present product is added to customers shopping cart. Customers are allowed to view the status of their carts, where chosen products with its price are displayed.

 Once a product is added to cart, the customers are informed of a success message, and asked if they would like to buy accessories or continue shopping or checkout immediately.

e) *Other functions related to shopping cart:*

The user can

 1) View shopping cart

 2) Add items to shopping cart

3) Delete items from shopping cart

4) Change the quantity of one item in the shopping cart

5) View the details of an item by clicking on the link.

f) *Check out:* Once customers choose to checkout, credentials to login will be required. Otherwise the customers must register first. After the customer creates an account with our site, the following information is collected: Credit card number, Phone number, Billing address, Shipping address and email address are enquired in order to sell the item. Once user submits this information, an e-mail confirming that the user has bought the item is sent to his email address

.g) *Post-purchase*: After purchasing the desired item, the users having an account with our site can do the following

 - See whether an item has been shipped or not.

- Rate an item. The ratings will reflect on the website.

- Write a feedback: We provide a message box to the user, he can leave feedback in this box.

- View purchase history.

2.2 Administrator

Administrators, or deal managers, have an interface to perform operations including view, add and modify all tables and view user feedback after login. They may have different authorities on different tables. Namely, in the product table (either of laptop or accessory), an item could be added and deleted, but in the customer table, deletions are not allowed. Any deletion of tables is not allowed.

2.3 Account management

(1) Basic register, log in. (The system should be able to distinguish between customer and administrator when they log in, and provide corresponding privileges.)

(2)Modify his/hers own information except for those used for identification. Possible changes include: mailing address, phone number.

3. Feasibility analysis

3.1 Goal: We are implementing a site similar to large online retailers like Amazon and Best Buy however on a smaller scale. The goal of this project is to provide a Business to Customer (B2C) model in an effective, efficient and user friendly way.

3.2 Time requirement: This project should be accomplished by end of November and tested before the final due date.

3.3 Technical challenges:

- Session management
- Synchronization of database

3.4 Ability of members: We are all graduate student with DB system development experience. Some of us are familiar with PHP.

3.6 Tools/Technologies:

Our group is already having access to the environment to create the site.

Softwares: Eclipse SDK, PHP, AJAX, MySQL, SQL, HTML, CSS, JavaScript

Hardware: CS Linux, Windows machine

3.5 Resources we can use:

Reference website:

- www.amazon.com
- www.dell.com
- W3C
- php.net
- dev.mysql.com

This project is feasible given the analysis above.

4. Responsibilities of Group Members

	Can	Harsh	Kailash	Kang	Vasu	Vivek
Business logic analysis	✓	✓				
Database modeling design		✓	✓			
Design of web pages				✓		
Transition among pages					✓	✓
MySQL		✓	✓	✓		
PHP	✓					
Testing					✓	✓

5. Timeline

The following is a tentative schedule for this project

- Business logic representation by October 1
- ER modeling design and the design of the relational schema by October 8
- Web pages design by October 14
- Project presentation October 17
- Design implementation November15
- Testing till December 5

6. Optional Goal:

If time permits, a desktop category will be added to the system. This can apparently expand the scope of the website. Everything else remains the same.