Name:_____ **Score: _____, Date: _____**

- ▪ **Project due date: in class presentation on 4/14/2018.**
- ▪ This is an individual project with 2 phases, and this is the 2nd phase.
- ▪ **Phase #2 will require you to develop the following functions (total 100 points).**

1. _____ (**5 pts**) All phase #1 features and functions should be included in phase #2.
2. _____ (**5 pts**) Create one new table **Products_XXXX** under the database **CPS3740_2018S** where **XXXX** is your Kean Email ID. Your table names must follow the above format (case sensitive).
   - ➢ Table **Products_XXXX** should have the following fields in correct data types.
     - ▪ id: auto_increment integer, primary key
     - ▪ name: varchar(255), NOT NULL
     - ▪ description: varchar(255), NOT NULL
     - ▪ sell_price: float, NOT NULL
     - ▪ cost: float, NOT NULL
     - ▪ quantity: int, NOT NULL
     - ▪ user_id: int, NOT NULL, a foreign key to the **id** field in **CPS3740.Users** table.
     - ▪ vendor_id: int, NOT NULL, a foreign key to the **V_Id** field in **CPS3740.Vendors** table.
   - ➢ You should check the data fields for tables **CPS3740.Users** and **CPS3740.Vendors** .
3. Add a search function on the **project 2 home** page with a "Search Products" button after the keyword textbox (shown in Figure 1) which will call a new CGI program to do the following search functions after users click on the "Search Products" button, your program will use the keywords to do pattern match on both name and description columns in your Product table.
   - 3.1 ____ (**5 pts**) If the keyword is *, all product records should be displayed. If the keyword is empty, an error message "no keyword entered" should be displayed and the program should not access database.
   - 3.2 ____ (**5 pts**) If no record found, please display "No record found with the search keywords: ……". If records found, please display all matched records in HTML <TABLE> tag format.
   - 3.3 ____ (**5 pts**) Search function should use **GET** method in the HTML <FORM>. The search program should be under current folder. The search URL should like: search_product.php?keywords=input_keywords

Figure 1. New search product function

Figure 2. Update link only available to staff

The following functions should be available only after a user successfully login. All these CGI programs should use the POST method, except Search should use GET method.

4. _____ (**5 pts**) Your login program should set cookie using the user ID as the cookie value. If the user doesn't successfully login, your program should not set the cookie. On the welcome page, you should have a **logout** link to clean/expire the cookie.
5. _____ (**5 pts**) If the user role is "Staff", display **additional** 3 links "Add products", "Display products", "Update products" as shown in Figure 2.
6. _____ (**5 pts) All the links (search, add, update, display) should call programs under current folder.**

7. _____ (**5 pts**) All the 3 functions in item 6 should check if the cookie was set first. If the cookie is not set or login ID is empty, your programs should ask users to login first and exit without connecting to the database.
8. _____ (**5 pts**) If users click on "**Display products**" link, it will call a CGI program to display all the fields for all products from your **Products_XXXX** table in HTML <TABLE> format.
9. _____ (**5 pts**) If users click on "**Add products**" link, it will call a CGI program to add a new product into your **Products_XXXX** table.

Add products
Product Name: _____
description: _____
Cost: _____
Sell Price: _____
Quantity: _____
Select vendor: XYZ Inc ▼ Submit

Figure 3. Add products page

10. _____ (**5 pts**) The page should include product name, description, cost, sell_price and quantity in textboxes, select vendor names in a dropdown list, and a submit button as shown in figure 3.
11. _____ (**5 pts**) Your program should retrieve all the vendor id and names first from table **CPS3740.Vendors**, and only display the vendor **names** in the dropdown list for the user to select.

12. After user clicks the Submit button, your program should verify the data and display corresponding error messages in the following situations,
  12.1 _____ (**5 pts**) **Cost or sell_price is negative**; or **sell_price < cost**; **name or description is empty**; **quantity <=0**
  12.2 _____ (**5 pts**) **Same product name exists** in your **Products_XXXX** table
  12.3 _____ (**5 pts**) If there is no error, insert the data into your table. Please note that you need to retrieve user login id from the browser cookie and insert the user **id** into the field **user_id**. If there is a data error, **no data will be added into your product table.**
13. _____ (**5 pts**) If users click on "**Update Products**" link, it should show all products on a web page as shown in Figure 4. You should display meaningful message whether the update is successful or not.
14. _____ (**5 pts**) The fields highlighted in yellow (Product id, Product name, Vendor name, login ID who was the **last person** to add/update data for the corresponding products) are Non-updateable fields. The fields (Product description, sell_price, cost, quantity) are Updateable fields.
15. _____ (**5 pts**) There is a button "Update products" which will call a CGI program to update the fields (sell_price, cost, quantity, user_id) for **corresponding products** in your product table.
16. _____ (**5 pts**) All the changed records are successfully updated on **ONE** click, and other not changed records should not be updated. The user id should be automatically updated by using the current login cookie value.

How to submit your project:
- Submit your project #2 through the class grade/submission system. http://imc.kean.edu/students
- Late penalty: **10 points per week** after due date. Resubmit will have late penalty. Only one resubmission.
- **Last resubmission date: 5/10. Instructor will not accept and grade projects after 11:59pmon 5/10.**

User logout

You can only udpdate description, cost, sell price and quanity.

Product ID	Product Name	Description	Cost	Sell Price	Quantity	Login ID	Vendor
3	p1	product 60	200	3500	100	lion	ABC
5	p3	product 33	50	750	16	lion	YYY
6	p4	product 43	120	160	8	lion	CCC
8	ipad	ipad air 2	400	600	5	lion	ABC
9	car	Honda civi	10000	20000	5	lion	YYY

Update products

Figure 4. Non-updateable fields are shown in yellow color, and Updateable fields white color.