

CSE 598: Distributed Software Development

Assignment – 5

Title: Twonk Computer Parts

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Introduction

This project we develop a complete service oriented web application with access control which involves several services for the purpose for the application to function. In this project I developed a computer sales shopping website which is completely service oriented and whose services are deployed in westrar server and also includes several features like session maintenance, caching, cookies, DLL classes access controls etc. Name of the Online store is "Twonk Computer Sales".

This Application a user to login to it, in case of admin user he/she is directed to their corresponding access page where they can add items to the catalogue. And in case of buyer he/she can purchase item via application, after logging in a session is maintained and the data is stored in the session. After a user adds item to the cart for purchasing he/she can click on checkout wherein they will be directed to the check in page, where they can add details of credit card etc and buy the items.

Pages involved in the application and their functionality: (GUI)

This project consists of several pages in it namely:

- 1) Login Page – This page is used for logging into the application, both the kind of user the admin and the application user must login to the application before he/she can either add items into the catalogue or he/she purchases an item from the store.
- 2) Registration Page – Any user who is new to the store/site must register with the store before he/she can buy any product. This pages provides facility for a user to register with the application, remember that the password of that the user provides must follow certain conditions. A user can go back to the login page by clicking on the back to login button.
- 3) User Page – In case of this page, it belongs to normal user who is willing to purchase items from the store via the application. This page includes a box that contains all the list of items available in the store which can be added to the cart or any item can be deleted from the cart as per the wish and they can proceed to the checkout.
- 4) Admin Page – This page belongs to the super user or the admin user, they are provided with the password, and he/she can login to this page via that username and password, it is provided by the organization. Once he/she logs in they can add new items to the catalogue so that they can be displayed to the end user and so that it can be available for selling.
- 5) Checkout Page – This page involves all the details of the products that the user wishes to purchase and the total costs of the purchases, and this page also asks for credit card information etc from the user for processing the purchase.
- 6) The End page / Thank You page – This is the page that will be displayed once the purchase as been made and the user wishes to buy the items. A user can navigate back to the login page from this page by clicking on the back to login button present in this page. And can repeat the steps again for purchasing of other products.
- 7) Initial_Page – This page consists of the description of the application, the tryit page and description of all the services that have been developed.

Services Used in the Application: (Service)

Newly Created Services:

There are two services that have been newly created which are mostly used for form validation and for the purpose of the XML processing:

- 1) XMLFunctions: This service is present in the APP_Code folder in the project and which is used for the purpose of handling the Data of user login and that of the catalogue data. This services contains all the functions that is used for writing reading etc from the XML file.
- 2) HelperService: This service consists of several validation methods which are very simple and used for validating several forms that are used in the application.

The remaining services are already developed and deployed in the webstar server during the assignment – 3, they are:

- 1) Encryption and Decryption Service: The purpose of this service is in order to encrypt and decrypt the password that is been given by the user while logging in for security purposes. This is done using a symmetric key.
- 2) Credit Card Validation Service: The purpose of this service is in order to validate the card number that is given by the user and to select the type of card that the user as submitted.
- 3) Password verification service: The purpose of this service is in order to validate the password given by the user with following constraints.
- 4) Currency Converter Service: The purpose of this service is in order to convert currency of one format to another.
- 5) There are several other simple services which have been exclusively developed for this application and used they are:
 - GetPartDetails – used for obtaining details of the part in the catalogue.
 - AddPartToCatalogue – used for the purpose of adding part to the catalogue.
 - LogMethod – This is used for the purpose of recording any error that may occur during running.
 - AddUserToLogin – This method is used for the purpose of adding new users into the application.

Files/Database Involved in the Application: (Database)

Log.txt – This file consists of any error log that may have occurred during the runtime other than validation errors, user errors etc.

CParts.xml – This is an xml file which is the catalogue, it contains all the information about the parts that is being sold via the application.

User.xml – This file consists of names of all the users and their passwords who have registered with the application, the passwords are stored in encrypted format so it is very hard to decode them.

Testing:

You can use any email id or password given below for testing whose logins are already created and kept:

ADMIN LOGIN:

Username: admin123@asu.edu

Password: Admin_123

User LOGIN:

admin123@asu.edu

Password: Twonk_0609

twonk@asu.edu

Password: Twonk_0609

balz@asu.edu

Password: Twonk_0609

ranz@asu.edu

Password: Twonk_0609

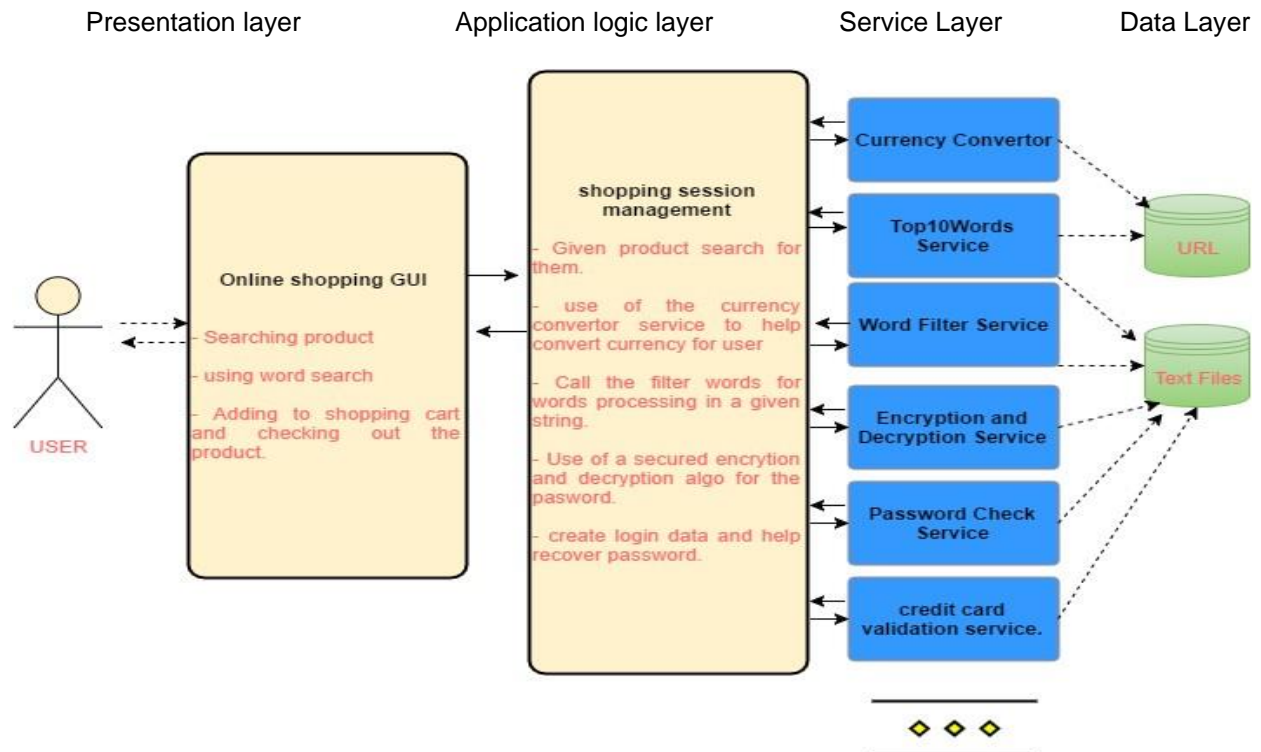
suchi@asu.edu

Password: Twonk_0609

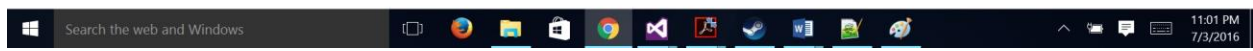
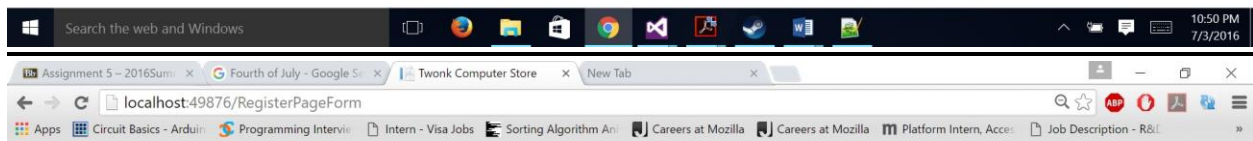
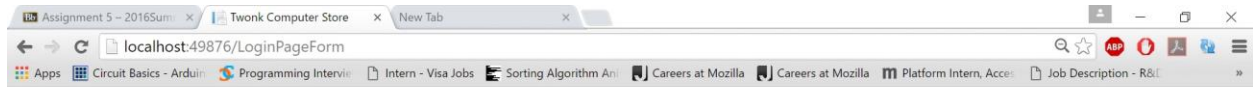
philanthropist09@gmail.com

Password: Twonk_0609

Flow Diagram:




SCREEN SHOTS:



Assignment 5 - 2016Sum x Fourth of July - Google S x Part Catalog x New Tab x

localhost:49876/UserPageForm

Apps Circuit Basics - Arduin Programming Interv Intern - Visa Jobs Sorting Algorithm Ani Careers at Mozilla Careers at Mozilla Platform Intern, Acces Job Description - R&L



Welcome philanthropist09@gmail.com [Logout](#)

Sales

Available Parts: (Name | Price)

| Name | Price |
|-------------------|-------|
| Dell monitor | \$100 |
| CPU i7 | \$150 |
| Dell keyboard | \$15 |
| Samsung monitor | \$123 |
| CPU i5 | \$76 |
| TCL monitor | \$100 |
| LG monitor | \$76 |
| Logitech keyboard | \$876 |
| Logitech mouse | \$400 |
| Sandisk pendrive | \$10 |
| monitor tpi | \$70 |
| monitor uk | \$24 |

[Add to Cart](#)

Your Cart

| | |
|------------------|------|
| CPU i5 | \$76 |
| Sandisk pendrive | \$10 |

[Remove from Cart](#)

[Proceed to Checkout](#)


Search the web and Windows

10:59 PM 7/3/2016

Assignment 5 - 2016Sum x Fourth of July - Google S x Checkout x New Tab x

localhost:49876/CheckOutPageForm

Apps Circuit Basics - Arduin Programming Interv Intern - Visa Jobs Sorting Algorithm Ani Careers at Mozilla Careers at Mozilla Platform Intern, Acces Job Description - R&L



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Sales

Your Cart:

| | |
|------------------|------|
| CPU i5 | \$76 |
| Sandisk pendrive | \$10 |

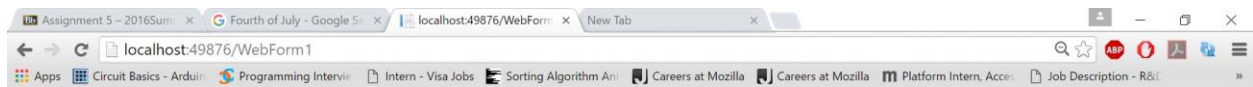
Payment:

| | |
|---------------------------|-----------------------|
| Total Amount: | 86 |
| Name: | Balaji Chandrasekaran |
| Credit Card Number: | 341234567891234 |
| Expiry Date: (mm/dd/yyyy) | 07/04/2016 |
| Phone: | 4806164909 |
| Zip: | 65281 |

[Confirm](#)

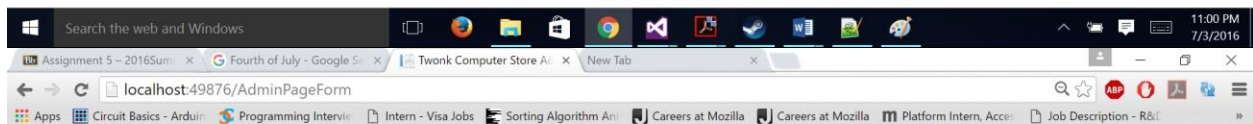
Search the web and Windows

11:00 PM 7/3/2016



Thanks for Shopping with us, You will be receiving the product in the next 10 business days

[BackToLogin](#)



Welcome admin123@asu.edu
[Logout](#)

Add Computer Part To Catalogue

Part Name:

Part Price:

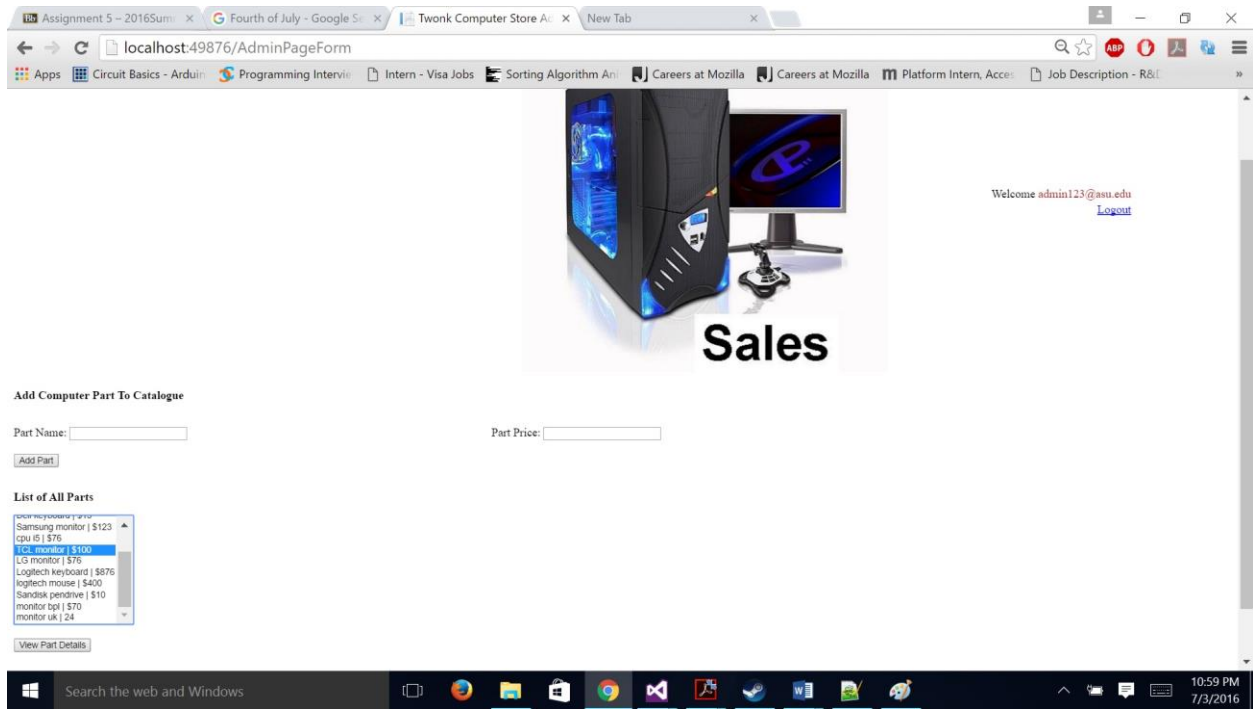
[Add Part](#)

List of All Parts

1 \$
Dell monitor | \$100
cpu i7 | \$150
Dell keyboard | \$15
Samsung monitor | \$123
cpu i5 | \$76
TCL monitor | \$100
LG monitor | \$76
Logitech keyboard | \$876
Logitech mouse | \$400

[View Part Details](#)

Part Name : TCL monitor



References:

- <https://social.msdn.microsoft.com/Forums/vstudio/en-US/d6a2836a-d587-4068-8630-94f4fb2a2aeb/encryptand-decrypt-a-string-in-c?forum=csharpgeneral>
- <http://stackoverflow.com/questions/202011/encrypt-and-decrypt-a-string>
- <http://stackoverflow.com/questions/10168240/encrypting-decrypting-a-string-in-c-sharp>
- <http://www.webservicex.net/uszip.aspx>
- <http://stackoverflow.com/questions/25302907/google-currency-converter-api-error>
- <https://hspinfo.wordpress.com/2008/07/05/a-regular-expression-for-a-strong-password/>
<https://msdn.microsoft.com/en-us/library/dd203052.aspx>
- Service Oriented Computing and Web Software integration *for principle to development* by Yinong Chen & Wei – Tei Tsai.