



FIT5032 Design Report (assignment 2)

Quotees T-Shirt Store
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1. Overview

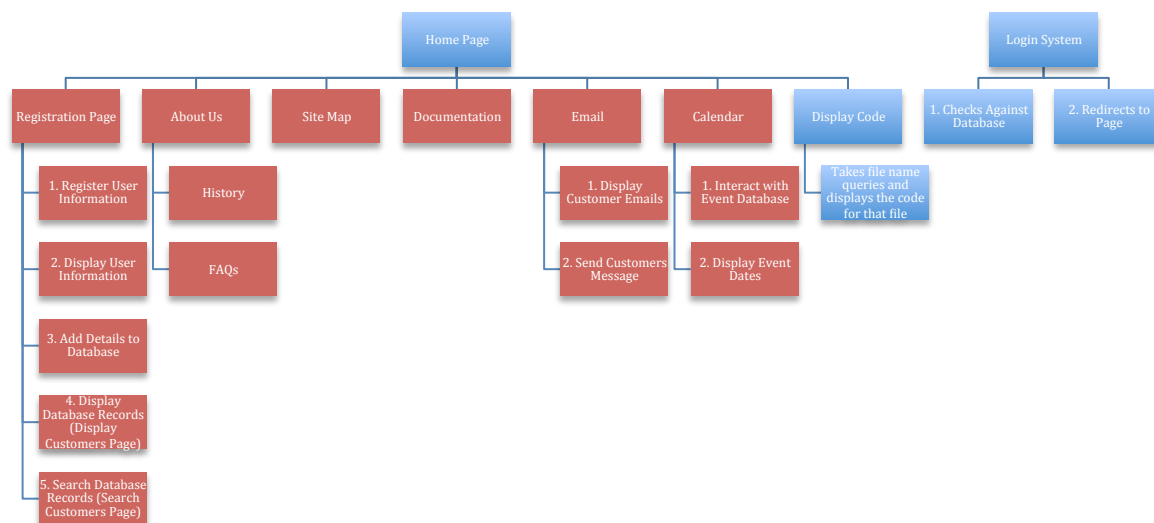
The purpose of this website is to provide information for a Melbourne-based t-shirt design company, Quotees. Quotees provides custom printed t-shirts with a variety of pop-culture inspired designs.

The website contains numerous features written in ASP.NET. Its goal is to provide a full-featured web application that allows people interested in the Quotees' brand to elicit further information. It also allows the web administrator to view information about Quotees' customers as well as send those customers emails.

The website initially provided only a small number of pages, but it has since been extended to include greater functionality. Additions to the initial iteration include: database interaction, user verification, email functionality, added functionality to the calendar control, and updates to various other aspects of the application. More detail of the application's functionality is discussed in section 3.

2. Functional diagram

Pictured below is the functional diagram for the Quotees website. It contains all its pages and highlights the functionality within each page. This is the second iteration of the application and thus contains additional functionality. The blue boxes indicate pages requiring anonymous authentication and the red boxes indicate pages requiring forms authentication via the Login System before they can be accessed.



3. Core program functionality

As this is the second iteration of the web application, Quotees' website provides additional functionality compared to the first iteration. The functionality of each of these pages is detailed in this section.

The *Master Page* contains most of the design to make sure that all the pages have the same look and feel. All the other pages are situated within the content panel of the master page. This page also houses the calendar control, which interacts with a database of events and informs the user whether or not an event is scheduled for today.

The *Home Page* provides the same functionality as the previous iteration. It contains an AdRotator control to display a set of three different images to the user, as well as key links and email addresses.

The *Registration Page* uses ASP.NET controls to gather information about the user; it now interacts with an Access database of customers. It also uses a number of validation controls to ensure proper input from the user. Once validated, the page will display this information back to the user and write that information to the database. If an email address already exists in the database, it will inform the user. When writing to the database, use of ASP:ControlParameters extracted the values from the fields in the registration form and inserted them into the Customer table. The registration page also allows for the user to view the entire record of customers and view detailed information about a selected record (*Display Customers Page*), and as search for a specific record using one of three different search criteria (*Search Customers Page*).

The *About Us Page* contains two sub-pages which all provide information about Quotees. This information includes general information, information about the company's history, and a set of frequently asked questions by its customers.

The *Login Page* will feature a forms based login system. The home page will allow for anonymous authentication, but any other page requires the user to login. Attempting to reach any other page redirects the user to the login page, prompting the user to enter their login information. The user is only authenticated if their details match the data in the Users database. Three users currently exist in the system: "aaa", "bbb", and "ccc", with their passwords matching their usernames.

The *Email Page* allows users to view all the customers, sorted by their last names, who have registered their information into the database. It also the user to select the addressees to which they wish to send an email, input the subject and email body, and, using the Monash SMTP server, send an email.

The *Site Map Page* makes use of a TreeView control and a web.sitemap file to display to the user an overview of the website. It shows a hierarchical view of all the website's pages.

The *Documentation Page* contains details about the website, as well information about the assignment itself.

Finally, the *Display Code Page* takes up to three filenames as query strings and dynamically reads and displays the source code for each file. A link to the source code is included in the majority of the pages on the Quotees website.

4. Usability Design Review

Navigation: The Quotees website allows for easy navigation with use of an ASP menu control. All links to the main pages are situated in the menu. The menu is clearly identifiable and includes hover-highlighting to ensure the user is able to navigate to their desired page.

Familiarity: The website employs a familiar design with a header, sidebar, content panel, and footer. This allows users to easily become accustomed to the page, as it resembles the look and feel of many other pages on the Internet, which aids in navigation.

Consistency: The website makes use of a Master Page to ensure that the overall theme is kept consistent with only the content changing. Use of a StyleSheet allows the design elements of the website to persist throughout all its pages.

Error Prevention: The registration page uses various ASP validation controls to ensure that the data that users have entered comply with the specifications. Because this information is then inserted into a database, this ensures that all rows that require filling in are filled in correctly and thus the database entries will be consistent.

Feedback: Users are provided with error messages if the data they have submitted in the registration form is invalid. Additionally, feedback is provided when the user attempts to login to the website – incorrect details will prompt the user to try again. Feedback is also given in the customer search page as well as the email page if the fields are incorrectly used.

Visual Clarity: The website uses CSS to style itself in a way that allows users to easily see its elements. The page isn't cluttered with unnecessary information or other content to ensure a pleasant experience for the user. It uses monochromatic colours to ensure that the site is easy on the eyes.

Flexibility and Efficiency: As this application is more focused on the user experience, there has been little focus on its flexibility and efficiency. This, however, can be improved upon in future iterations. One note is that, for the calendar control, a query is made to the database for each day that is rendered, drastically increasing load times.

5. Checklist of site functionality

1. (Home Page)	
Design	✓
Dynamic code display (Master and Home pages)	✓
2. (Registration)	
Web form and validation controls	✓
Formatted data entry display	✓
Database update	✓
Display all records using Grid View	✓
Search records	✓
Overall page design	✓
Dynamic code display	✓
3. (About Us)	
Dynamic code display (About Us, Our History, FAQ)	✓
4. (Site Map)	
Dynamic code display	✓
5. (Documentation)	
Author/assignment details	✓
Style sheet	✓
Skin	✓
6. (Login System)	
Implementation and Design	✓
Dynamic code display (login page and web.config)	✓
High Distinction Requirements	
7. (Email)	
Alphabetically sorted list	✓
Send email to selected customers	✓
8. (Calendar)	
Background colour set	✓
Label displays description and time of todays events	✓
Label displays "No Event" text	✓
Audit	
No breaking of copyright	✓

6. User stories

As a/an	I want to...	So that...
Customer	Get information about the website	I can learn more about its background and history
Customer	See what people have asked	I can get answers quickly
Customer	See an overview of the entire website	I can pinpoint which page I wish to visit
Customer	Register my details	I can sign up for the newsletter
Customer	Contact the webmaster	I can ask them a question
Customer	See what day it is	I can know if I should place an order
Customer	See images of the product	I can make a buying decision
Administrator	Get data from the customers	I can generate a customer database
Administrator	Display information about my business	I can increase my customer base
Customer	Login to the website	I can register my details
Customer	View details about upcoming events	I can plan to attend events
Administrator	View the source code of each page	I can implement bug fixes
Administrator	View details of all the customers	I can get to know my customer base
Administrator	Search for a specific customer	I can get that customer's details
Administrator	Login to the website	I can perform administrative tasks
Administrator	Send an email to my customers	I can inform my customers of various new additions to the product catalogue

7. Data dictionary

Name	Type	Description
N/A	asp:Content	Content tags for the ContentPlaceHolder
Ads.xml	XML	Contains advertisement information for the AdRotator
adRotator1	asp:AdRotator	AdRotator control
N/A	asp:Hyperlink	Hyperlink control
SkinFile	Skin	Skin for ASP controls
N/A	asp:Menu	Menu control containing links for the website
siteMapDataSource1	asp:SiteMapDataSource	Contains site map data source
calendar	asp:Calendar	Calendar control
siteMapPath1	asp:SiteMapPath	Breadcrumbs
ContentPlaceHolder1	asp:ContentPlaceHolder	Content Place Holder control
firstNameBox	asp:TextBox	Text box for first name
lastNameBox	asp:TextBox	Text box for last name
emailBox1	asp:TextBox	Text box for email
emailBox2	asp:TextBox	Text box for email comparison
ageBox	asp:TextBox	Text box for age
genderList	asp:RadioButtonList	RBL for gender
stateList	asp:DropDownList	DDL for states
hearList	asp:ListBox	LB for source information
subscribeCheckBox	asp:CheckBox	Check box for subscription
submitButton	asp:Button	Submit button
N/A	asp:RequiredFieldValidator	RFV for all the text boxes
firstNameValidator	asp:CustomValidator	Validates that first name is at least 2 characters
lastValidator	asp:CustomValidator	Validates that the last name is at least 2 characters
N/A	asp:RegularExpressionValidator	Regex validator for email
N/A	asp:CompareValidator	Compare validator for email
N/A	asp:RangeValidator	Range validator for age
Various Labels	asp:Label	Labels in the panel to display back to the user

userInfo	asp:Panel	Displays information to the user once validated
N/A	asp:TreeView	TreeView control for sitemap
Web.sitemap	sitemap	Site map file
login	asp:Login	Login control for the system
loginValidationSummary	asp:ValidationSummary	Validation Summary for the login control
calendarDS	asp:AccessDataSource	DataSource for the calendar events
calendarDV	DataView	DataView for the calendar DataSource
calendarDT	DataTable	DataTable converted from the DataView for the calendar
customerDS	asp:AccessDataSource	DataSource of the customers
userDS	asp:AccessDataSource	DataSource of the users
customerGV	asp:GridView	GridView of the customers
customerLV	asp:ListView	ListView of selected customers
customerPanel	asp:Panel	Panel displaying customer information
fileReader	StreamReader	Used to read the text of a file

Database data dictionary

Table: User

Name	Type	Description
UserID	AutoNumber	User ID of the user
Username	Short Text	Username of the user
Password	Short Text	Password of the user

Table: Calendar

Name	Type	Description
eventID	AutoNumber	ID number of the event
eventDate	Date/Time	Date of the event
eventTime	Short Text	Time of the event (24 hours)
eventDescription	Short Text	Name of the event

Table: Customer

Name	Type	Description
customerID	AutoNumber	Auto generated customer ID number
firstname	Short Text	Customer's first name
lastname	Short Text	Customer's last name
email	Short Text	Customer's email address
age	Number	Customer's age
gender	Short Text	Customer's gender
state	Short Text	Customer's state
hear	Short Text	How did you hear about us?
subscribe	Yes/No	Whether or not the customer wishes to subscribe to the newsletter
url	Short Text	A hardcoded URL