COMP6003

Enterprise Web Development

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Initial Design

- This site is a mini social networking website which mainly focuses on sharing landscapes with friends through the world. Users could share the pictures, blogs and also historical background of the landscapes.

- The Google Earth API is implemented in this system to provide a world-scale landscapes.

- There are mainly two roles in this system: user and admin.

- User: mainly shares the personal experience and edits the place information.

- Admin: focuses on the system and place information management.

Changed Implementation

- This system is a mini social networking web site which focuses on making friends and sharing blogs. Due to the limitation of time and code counting, the place sharing functionality is replaced by the blog functionality. However, the location of users is implemented.

- Google Map API, Postcode Anywhere web service API, iTextSharp API and FCKeditor API are implemented in this system.

- Roles are changing into the editor and visitor which means the authority of users. Editor could edit and save the content of other users' blogs while visitor could just view the blog of others. Friends functionality is also implemented. Users could make friends and delete friends. Managing blogs is implemented in the system.

Changed User Stories

User story	Item management	Web flow & work flow	Messaging & comm.	Rich content	Data import & export
Online friends Prompt	Browse & search items	Sessions	Friends		
Blog editing	Edit item hierarchy	Work items, users, roles	Roles	Edit rich text	
Friends recommendation	Recommendations		Sort & rate posts		
Friends communication and messaging		Multipart form	Post comments	Generate image	
Export or import information of postcode					Import Address of Users from XML/ export data for PDF

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Item Management

- Friends are stored in dynamic hierarchy that could be search through name, town and county and also could be browsed easily.

- Blogs are only editable by users which owns to themselves, unless the role of editor could edit other users' blogs.

- The functionality of friends recommendation implements the but not a dynamic recommendation. It depends on the information of users and the system recommends the people that user want to make friends.

Web Flow and Work Flow

- The functionality of Blogs could be accessing by all the users and each visitor only has the authority to access to his own blogs. But the role of editor have the right to edit other users' blogs.

- Initially, the function of blog is designed to be a collection of places which people could edit the information of the location just like Wikipedia. Session is using in this system to determine the users' role and different users.

- The homepage of users is just visible for the users having been friends, which contains the blogs and messaging.

Messaging and Communication

Users could post comments to the friends selected or edit the blog their friends posted if the user is Editor in role of system.

The comments could be show by the friends as well as just to show between the user who posts and who receives which is defined as a whisper.

The comments are sorted by the descending order of time.

Rich Content

- FCKeditor API is implemented in this system which provides a rich content editor for the users to edit and post the blogs. This editor provides a rich content input such as images, videos and flash. This is a third party application which provides the API for users to implement.

- The profile of users should be upload the profile photo which limits in the range of types such as JPG, BMP, PNG and GIF.

Data Import and Export

- Data import is based on the Postcode Anywhere to find the detail address through inputting the postcode of user. Then system uses the Postcode Anywhere Geocoding Web Service API to get the SOAP message which is including the information of location.

- User could get the marking in the Google Map which gets the XML information through the data stored in the SOAP message.

- User could also export his personal information into a PDF file through the XML file transformed by iTextSharp API.

Professional Appearance

- This web system using a simple style sheet which generates from the default project. Navigation and login status are implemented by default setting as well as site menu.

- According to the requirement of postcode service, JavaScript is using in the implementation but not much. The appearance of the system is simple and concise which is suitable for a mini SNS web site. With using the GridView control, the appearance of data table througgout the whole site is depended on the default appearance of the GridView.

Architecture

- The layer of the web site includes four parts the header, main content, left content and right content. Business logic is clear and the implementation of the logical layer presents the main functionality of the system.

- The business objects are encapsulated in to different business classes. Validation of the input such as the type of profile photo, the length of input content in blogs is implemented in the system.

Data Access Tools and Techniques

- The ADO. Net Entity Framework is used to generate the classes of logical business objects and also provides the default constrains and transactions for the data accessing.

- The ADO. Net Entity Framework provides a convenient and effective way to access to the data regardless the different programming languages.

Justification and Evaluation (1/2)

- With the lack experience of ASP. Net and C sharp programming, the implementation of this system is based on the self-learning and practicing. So some approach in this system is not suitable enough, neither programming nor the tools selecting.

- This system is based on the C sharp and ASP. Net 4. The advantage of ASP.Net4 provides a secure, convenient and maintainable way to implement the web applications. The good supporting of MSDN is also a primary reason for choosing this technology. Object-Oriented Programming is the main feature of C sharp language, which includes multiple classes to support different functionality.

- The IDE is Visual Studio 2010 Professional Edition. This IDE provides a convenient and fast way to programme and the toolkits embedded in the IDE also implements some significant functions of the web application.

Justification and Evaluation(2/2)

- ADO. Net Entity Framework provides a convenient way to access the database rather than using the SQL statement. Each table of the database is generated a related class to present the business logical of the web site. It also reduces the counting of code lines to meet the instruction. There is a good support for the GridView and other data controls with data binding.

- This web application is a simple web design which implements some functions such friends making and blogs sharing. However, some function which generates from other web services such as using Google Map API to indicate the location of the user and his friends. Postcode service is used to standardizing the format of address in UK.

- This web site is tested manually due to the lack of suitable software to test this. But the evaluation software NDepend tests the quality of the whole project which indicates the level of programming.

List of Mark Up Code

This is Counted Manually

Total: 340 lines

Aboutus.aspx Ln 11

Default.aspx Ln 3

Friend.aspx Ln 33

Homepage.aspx Ln 39

myBlog.aspx Ln 27

Topplace.aspx Ln 32

Web.sitemap Ln 6

Web.config Ln 16

changeProfile.aspx Ln 24

ErrorPage.aspx Ln 1

Friendresult.aspx Ln 31

Iplace.aspx Ln 25

Profile.aspx Ln 58

ViewBlog.aspx Ln 31

Site.css Ln 3

List of Source Code
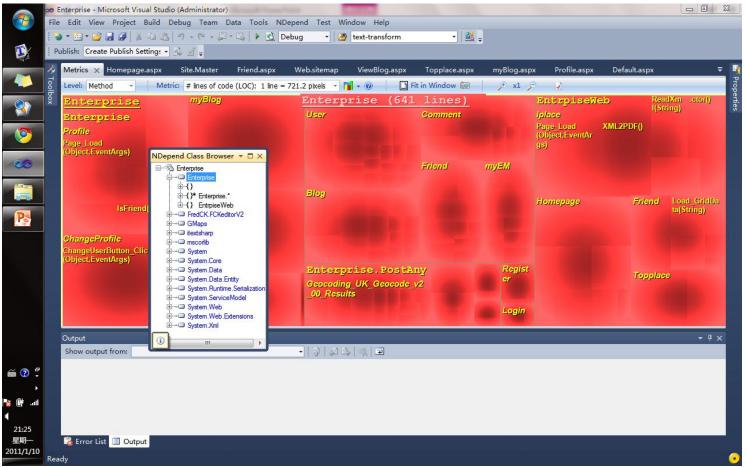
This is counted by NDepend.

Total : 479 lines

Default.aspx.cs Ln 0

Homepage.aspx.cs Ln 54

Topplace.aspx.cs Ln 23

ChangeProfile.aspx.cs Ln 47

FriendResult.aspx.cs Ln 25

Profile.aspx.cs Ln 76

PostAny.aspx.cs Ln 47

LoginLn.aspx.cs 4

Friend.aspx.cs Ln 33

Iplace.aspx.cs Ln 80

Aboutus.aspx.cs Ln 0

ErrorPage.aspx.cs Ln 0

myBlog.aspx.cs Ln 45

ViewBlog.aspx.cs Ln 40

Register.aspx.cs Ln 5

Logical Code Lines: 482

According to the counting of Ndepend, there are 641 lines in the Enteprise.dll except the mark-up which is included ADO.net Entity.

Total Code Lines: **819**

The AccesstoDB is generated from the ADO.Net Entity Data Model which accounts for **162** lines. So the source code is **479 lines**. And total code lines are **819**.
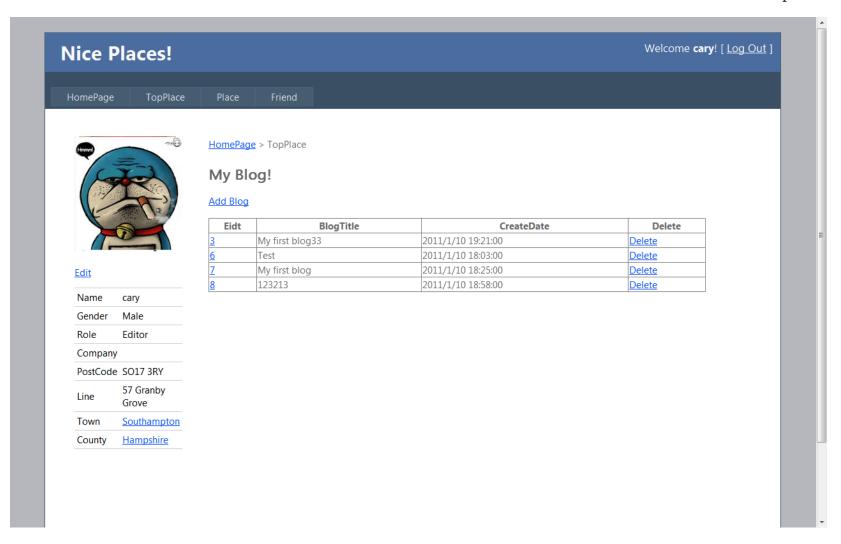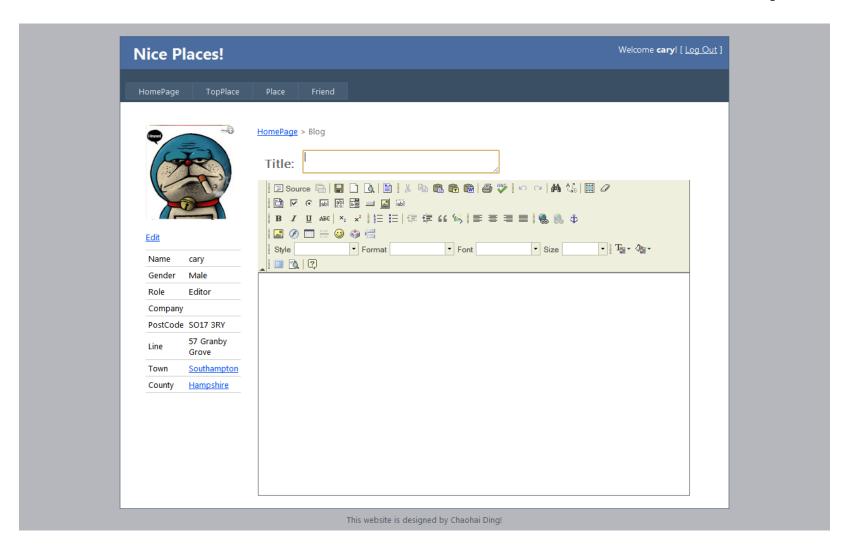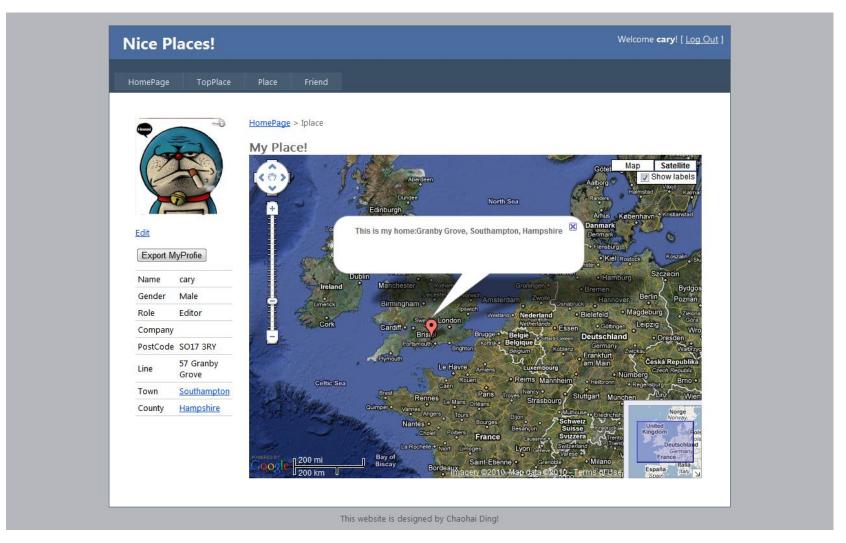
Friends List and Recommendation

Blog List

Nice Places!

| HomePage | TopPlace | Place | Friend |

HomePage > TopPlace

My Blog!

Add Blog

Eidt	BlogTitle	CreateDate	Delete
3	My first blog33	2011/1/10 19:21:00	Delete
6	Test	2011/1/10 18:03:00	Delete
7	My first blog	2011/1/10 18:25:00	Delete
8	123213	2011/1/10 18:58:00	Delete

Edit

Name	cary
Gender	Male
Role	Editor
Company	
PostCode	SO17 3RY
Line	57 Granby Grove
Town	Southampton
County	Hampshire

Blog Editing

Registration: Postcode Service
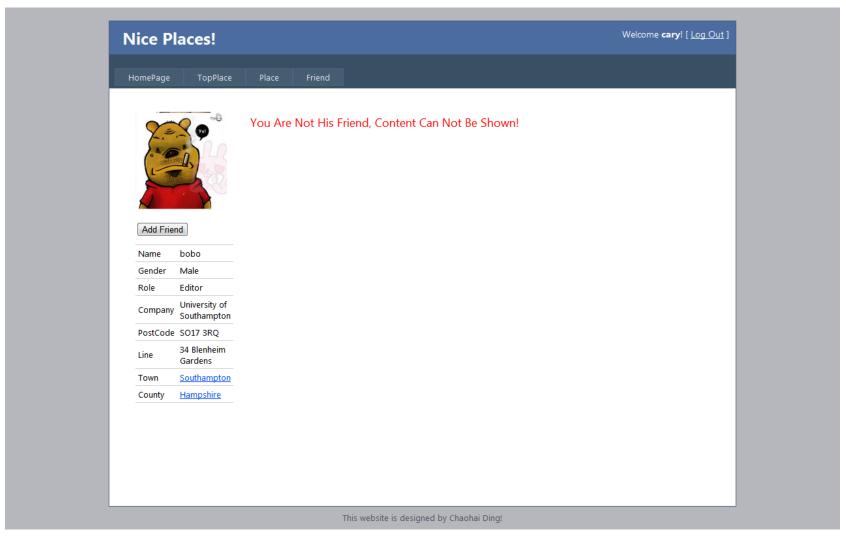
Mark in the Map through Postcode

Comment on Friend's Page

Status of Non-Friends

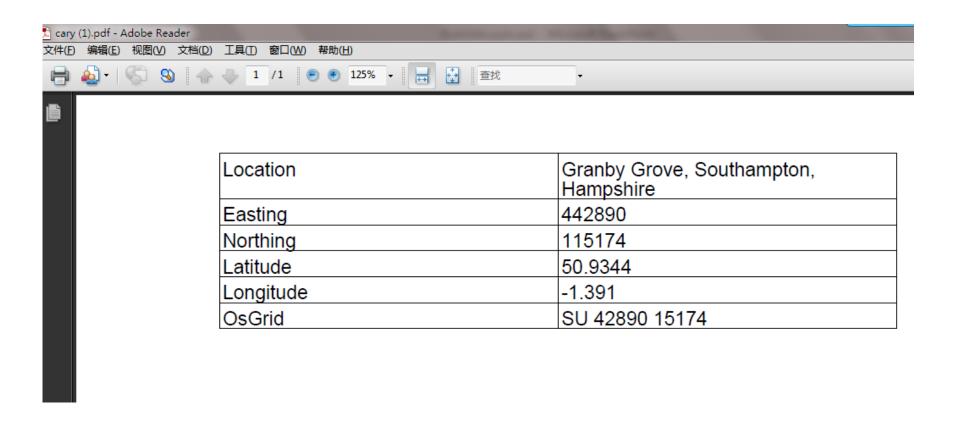COMP3016

Search through Item "Town"

XML imported from Geocoding

PDF Exported from XML

cary (1).pdf - Adobe Reader

文件(F) 编辑(E) 视图(V) 文档(D) 工具(T) 窗口(W) 帮助(H)

1 /1   125%   查找

Location	Granby Grove, Southampton, Hampshire
Easting	442890
Northing	115174
Latitude	50.9344
Longitude	-1.391
OsGrid	SU 42890 15174

Reference(1/2)

1. Andy Gravell and David Parsons

Dynamic Web Application Development using ASP.NET

2. Chappell, D. 2006

Understanding .NET A Tutorial and Analysis

3. ADO.NET Entity Framework

http://msdn.microsoft.com/en-us/library/bb399572.aspx

4. iTextSharp API

http://itextsharp.com/

5. FCKeditor 2.6.6

http://sourceforge.net/projects/fckeditor/

6. NDepend

http://www.ndepend.com/

7. The Official Microsoft ASP.NET Site

http://www.asp.net/

Reference(2/2)

8. .NET Framework 4

http://msdn.microsoft.com/en-us/library/w0x726c2.aspx

9. Google Maps.subgurims.NET

http://en.googlemaps.subgurim.net/ejemplos/ejemplo_999_3_3_GMapUI.aspx

10. Geocoding/UK/Geocode (v 2.00)

http://www.postcodeanywhere.co.uk/support/webservices/Geocoding/UK/Geocode/v2/default.aspx

Thank You