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E-Commerce According To Hobby

Eftâl Şehirli [a] *, İlhami M. Orak [b]

[a]*Department of Biomedical Engineering, Karabük University, Karabük and 78050, Turkey*
[b]*Department of Computer Engineering, Karabük University, Karabük and 78050, Turkey*

Abstract

This paper describes a web application called E-Commerce According to Hobby. In this application, E-Commerce According to Hobby application contains some different technologies such as RSS so as to be able to get the news of products from an e-commerce web site, LINQ to SQL and Ado.Net in order to make a connection with SQL Server Database System and compare these two technologies. Thanks to this study, we hope that people who use this application can reach the desired news more easily. Therefore, they can get a chance to get rid of the unrelated news for them. This study aims to increase the user-friendliness to do shopping from a specific e-commerce web site such as EBAY without spending a lot of time in a fast way.

Introduction

Technology is one of the most commonly preferred disciplines by people at the present time. While new electronic products are presented day-by-day in the technology world and also new software programs for existing products are written, demands of people regarding the technology issue have started to increase rapidly. E- commerce is one of people's demands, which wait for realizing. Due to e-commerce, users can see costs, colors and size of whatever they desire to buy without being tired and wasting much time. In addition to advantages of e- commerce, the study called E-Commerce According To Hobby adds new properties such as mainly showing the products according to hobbies of users by using RSS feeds of EBAY. Hence, it was firstly aimed at showing specific products for customers instead of all products. Secondly, by holding news in a database, it was measured the speed difference

Corresponiding Author: Eftâl Şehirli. Tel.: +90-505-503-3550
E-mail address: eftalsehirli@karabuk.edu.tr

between the news coming from RSS feed and the database. Moreover, it was compared LINQ to SQL and Ado.Net by both sending information to database and getting information from database separately.

2. General Descriptions of Used Technologies

There are some technologies used in the application named as E-Commerce According To Hobby such as RSS, which helps getting product news from EBAY, LINQ to SQL and Ado.Net which help interacting with database. General descriptions of them are shown below in order.

2.1. RSS

RSS is the abbreviation of "Really Simple Syndication". It is also known as Rich Site Summary and RDF Site Summary. It is a web technology used to obtain updated news from news providers, blogs, and forum sites and so on. RSS presents all news from different web sites in one place. That's why; this property of RSS makes it more convenient for users. RSS files include XML format and their extensions are in the form of either .rss or .xml. Thanks to the RSS files, news is sent to the users as a logo and title in the XML format. Therefore, users can redirect to the main page of news after seeing the title of them. Title, link, description tags exist in the XML format of RSS files. These tags are between rss that is the root element and channel tags as well (Zhu J. & Wang H., 2010). Redirection to main page of news is provided by link tags.

2.2. LINQ to SQL

LINQ is the abbreviation of "Language Integrated Query". LINQ technology mainly allows reaching data easily from application side and making dynamic queries over data as if they are made in database systems. LINQ is launched with .Net framework 3.5 together. It is used only with SQL Server database system. After adding dbml class, programmers can set the connection and database options. Furthermore, LINQ to SQL presents object oriented programming property, reusability, simplicity, modifiability and maintainability in an intercalary manner (Sehirli E. & Ozdemir B.G., 2012). Furthermore, all tables are classes and every column or field of tables is attributes. Some codes that are used only by LINQ to SQL can be written by programmers without changing connection situation with the database and using any parameters (Dave, A. & Hate, S., 2010).

2.3. Ado.Net

Ado.Net is the abbreviation of "ActiveX Data Objects.Net". It exists in the Microsoft .Net Framework as a class library. The command "using System. Data" in the namespace field adds all classes of Ado.Net. In addition to that, according to type of database systems, client of them need to be added like System. Data. SqlClient. It supplies programmers to interact with any database systems like Oracle, SQL server, MySQL from application side. To reach the databases from application side, programmers specify the connection string that includes server name, database name, username and password. Next, programmers should open connection if it is close, or close connection if it is open. Programmers write SQL scripts as string variables in the application side. In the application side, parameters can be used as a different form of SQL script from database query windows. Thus, SQL injection problem can be prevented most probably. This is a property of Ado.Net. In addition to them, Ado.Net is the most commonly preferred technology so as to interact with the database systems.

3. E-Commerce According To Hobby Application

E-Commerce According To Hobby is a web application that fundamentally provides people to see product news regarding their interests or shortly hobbies. Users are also entitled to see all news coming from the RSS feed of EBAY provided that they desire to see all of them. Thereby, it is aimed at displaying the news together in a single web form. As a result, users can follow the innovations about their interests without spending lots of time after they specify their hobbies by selecting in the system. In addition to this, users do not have undesired product news from application. Product news is stored into the database and can be selected from the database so as to display.

First of all, all news of products is obtained thanks to the RSS feeds of EBAY which is "deals.ebay.co.uk/DailyDeal.rss". An object created from XmlTextReader class reads title, link, description, item id, type, and channel id of all news one by one. Then, XmlTextReader object makes all information keep in a dataset. After that, titles and links of them are assigned in the link buttons owing to the dataset object. Users can see the titles of the news. When they click the title so as to see products in a detailed manner, they are redirected to the original site of the products since link button also has the link information of them.

Obtained RSS news is also stored in the database in order to compute the speed difference while getting the news by using RSS and database. LINQ to SQL and Ado.Net are used to interact with database. Due to the fact that the using more the internet connection increases the number of request-response operations so as to get product news with RSS, utilizing database was determined as being more efficient. It took about 3.63 seconds in order to get news of 731 products when RSS was used. It took about 0.78 seconds to acquire news of 1364 products when database was used.

In the application, users can search product news by writing a word or statement in the search part. It was aimed at reaching direct results when users want to find product that is searched. In order to achieve this goal, 24 brand names and 50 related words regarding computer, electronic and games hobbies were determined and stored in the database. When Ado.Net was tried to get success by using only brand names, 24 parameters were used in one query. Values of parameters were assigned in a for loop which reverted 24 times. On the other hand, when LINQ to SQL was tried to get success by using both brand names and related word regarding hobbies of a user, 24 queries including one parameter was executed in a for loop which reverted 24 times and a permanent result is obtained. Next, 50 queries including one parameter was executed in a for loop which reverted 50 times over the permanent result. As a result, two different results were displayed on the screen. It was observed that LINQ to SQL was faster and displayed more consistent results than Ado.Net.

Finally, in the application, there exists an admin user who assigns all news of product coming from EBAY to hobby groups like computer, electronic, game, clothing etc. After admin user identifies grouping, product news is appointed related hobbies. Hence, results are shown users in a right manner.

4. Discussion

E-Commerce According to Hobby needs a solution to match product news with related hobby automatically because an admin user must always realize matching process. In order to overcome this problem, data mining techniques that show consistent results without needing an admin user can be used. Hence, matching process is automatically done by the application when new RSS feeds come to the application from EBAY.

Application needs a second solution to obtain all RSS links of e-commerce websites like EBAY. If all RSS feeds are added to the application, users can see much product news by only using one web site. Hence, many web sites are not visited. Moreover, users may save their times and use their times in vain.

5. Conclusion

E-Commerce According to Hobby is a web application which provides users to show titles of product news. It achieved this goal by using RSS feeds of EBAY. Moreover, due to storing all product news into the database, as a second chance, all product news could be displayed by using database. In order to interact with the database, LINQ to SQL and Ado.Net technologies were utilized. Therefore, it was found a chance to compare Ado.Net with LINQ to SQL. In this paper, although there was no vast differences between these two technologies as speed and performance, LINQ to SQL was observed a little faster than Ado.Net when using any parameters in the query. In the discussion part, some deficiencies were clearly mentioned. Finally, for all humanities, it may be a very efficient application to make e-shopping simpler and inform people in an easier ways.

Acknowledgements

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