

Web Based Technologies – HW5

In this homework, you will design a news crawling website that parse news from a particular RSS and instantly updates itself.

You have to design **three** web pages, **Home.aspx**, **RSSparsing.aspx**, **NewsDetail.aspx** and a class page (**News.cs**) that holds news information.

News.cs

1. Add a class file named **News.cs** into your project (Add New Item, Class). This file will contain information about the news. If you encounter a message which states that this file should be in **App_Code** folder, then select **Yes** and let Visual Studio create the **App_Code** folder for you and put **News.cs** file in this folder. After then, you will be able to use the **News** class in your application like any other classes of .NET library.

```
public class News
{
    public int NewsID;
    public string Title;
    public string Description;
    public string Category;
    public string Author;

    public string PubDate;
    public string ImageUrl;

    public News(int NewsID, string Title, string Description,
string Category, string Author, string PubDate, string ImageUrl)
    {
        this.NewsID = NewsID;
        this.Title = Title;
        this.Description = Description;
        this.Category = Category;
        this.Author = Author;
        this.PubDate = PubDate;
        this.ImageUrl = ImageUrl;
    }
}
```

Design of RSSparsing.aspx

You can choose one the following link to parse news.

- <https://www.fotomac.com.tr/2007/01/04/rss.html>
- <https://t24.com.tr/rss-listesi>

BEŞİKTAŞ FENERBAHÇE GALATASARAY TRABZONSPOR FUTBOL BASKETBOL YAZARLAR SON DAKİKA

You have to choose at least three categories from available news. Example categories are:

- **World,**
- **Technology**
- **Sports**

- **Science**
- **Health**
- **Travel**
- **Arts**
- **Jobs**

The following information about news will be downloaded and stored in a ArrayList. You can consider up to 20 news for each category. Each news should be saved with unique id, which is called as **NewsID**. Information that are needed to be parsed are:

- **Title**
- **Description**
- **Category**
- **Author**
- **PubDate**
- **ImageUrl**

This information of news are located in <item> tag. Therefore, you should consider only <item> tags when parsing the xml file.

Check List of HW:

Step1. You should retrieve all information of news from RSS.

Step2. Then store each news into a news object by using News.cs

Step3. Store each news object into an ArrayList.

Step4. Also, save all news from ArrayList to .mdb (only access database). Your database should contain all of old news. Don't allow the news to be repeated. For this purpose, check the Title of News.

Step5. Retrieve today news by connecting the local database and keep news in the ArrayList. Show the news in Home.aspx

Step6. Display the today news according to their category. You can use any design. For instance; you can use any slider. if a specific news is clicked, then you can display news information in detail page, namely **NewsDetail.aspx**.

When a news clicked you should display the following information.

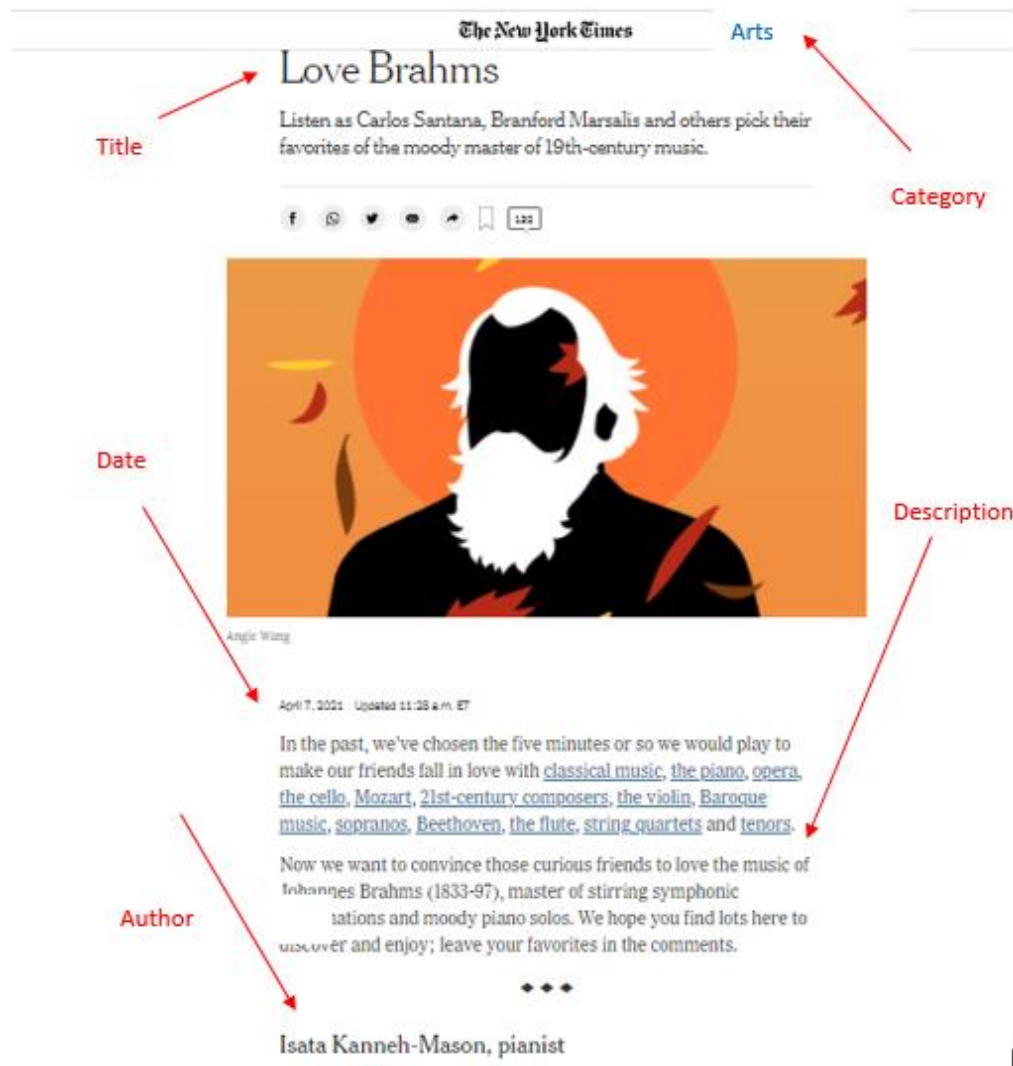
- Title
- Description
- Category
- Author
- PubDate
- Image

Step7. You are expected to record some logs. You have to use any logger available in Nuget Package. You should write the exception message into logger file by using selected Nuget logging Package.

Step8. Display all news and categories in Home.aspx, when a news is clicked, then show details in NewsDetail.aspx.

Design of NewsDetail.aspx

The details of a news should be displayed in NewsDetail.aspx which is shown Fig. 2. You will be graded based on your design.



The main of RSSparsing page is holding news in a session with ArrayList and also save ArrayList to database.

English Summary:

RSSparsing.aspx will be run first in the project. Then the news will be crawled and keep with a session state. Then, the news kept in the session will be saved in the database.

A user will be considered to be connected to Home.aspx and Home.aspx will only extract news from the database and save with an ArrayList. Then the news will be posted on Home.aspx.

The process of designing home.aspx depends on your skill. Depending on you, you can keep the news for today or tomorrow or for 1 month. Apart from the categories I have given, you can set your own category.

If keeping the news in the session takes up a lot of memory, then convert the news to json format. You can publish it on home.aspx with that way.

Turkish Summary:

Projede ilk RSSparsing.aspx alıřtırılacak. Sonra haberler ekilecek ve session da tutulacak. Sonra sessionda tutulan haberler veritabanına kaydedilecek.

Bir kullanıcının Home.aspx e baėlandıėı dřnlecek ve Home.aspx sadece veritabanındaki haberleri ekecek ve ArrayListe atacak. Sonra ArrayListteki haberleri Home.aspx te yayınlanacak. Home.aspx design etme sreci sizin becerinize baėlıdır. Size baėlı olarak bugn veya yarının veya 1 aylık haberleri tutabilirsiniz. Verdiėim kategoriler dıřında siz kendiniz kategori belirleyebilirsiniz.

Eėer sessionda haberleri tutmak memory de ok yer tutuyorsa o zaman haberleri json formatına dnřtrp. O řekilde home.aspx te yayınlatabilirsiniz.

Your design will be graded over 30 points.

Submitting the HW

Example; Name-Surname-Midterm.Zip