

وظيفة مقرر برمجة التطبيقات الموزعة للفصل F19

موضوع الوظيفة	موقع أخبار News Website
رقم الوظيفة	١
أستاذ المقرر	د. محمد الجنيدي – د. وسيم الجنيدي
منسق المقرر	د. محمد الجنيدي
العلامة العظمى	١٠٠
تاريخ الإرسال	٢٠٢٠/٥/١٠
تاريخ التسليم	٢٠٢٠/٦/٢٠
عدد الطلاب للوظيفة الواحدة (أدنى / أعلى)	٢ إلى ٤
الموارد المطلوبة	محتوى الجزء العملي للمقرر

• الهدف من الوظيفة والفائدة المرجوة للطلاب من إنجازها

تهدف الوظيفة إلى إكساب الطالب القدرة على تطوير تطبيق موزع باستخدام تقنيتين من بيئة .NET. تعتبران نموذجيتين لتغطية معظم المعارف المطلوبة في هذا النوع من البرمجيات، وهما تقنية Remoting وتقنية WCF.

• نص الوظيفة

In this mini-project we need to build a distributed system for a news website which shows the last 10 news in the database. The database of the news should have the following columns:

- ID.
- News Agency ID.
- Date
- Title.

- Abstract
- Text.
- Photo
- Total reads
- Ranking (positive or Negative with probability)

The Agencies should have the following parameters:

- ID
- City
- Language

The system consists of the following three main parts:

Database:

- You have to build the required database for the project.
- **Stored procedures are not allowed.**

Remoting:

The Remoting system is for admin clients. It should enable the following facilities:

- Add news
- Remove news
- Update the photo of news
- Retrieve all news
- Retrieve news of a certain agency
- Add/remove/retrieve/modify Agency

NOTE: if you implement any of the previous methods by WCF (or any other method except Remoting) you will get 0 marks for it.

WCF:

The WCF system should enable the normal client to

- 1- search within the news:
 - Find the newest 10 news which have certain words
 - Find news similar to a one given by the client
 - Find the best n positive (n should be chosen by the client)
 - Find the best n negative (n should be chosen by the client)
- 2- Add to the ranking (positive or negative)

NOTE: if you implement any of the previous methods by Remoting (or any other method unless WCF) you will get 0 marks for it.

- You can work in groups of 2, 3 or 4 students. 1 student is not accepted.
- **Homework should contain a PDF with the group names and IDs and e-mails.**
- You must include a text file specifying the group details (full name, ID , e-mail)
- WCF deployment should be on windows IIS.
- No reports are required, you have only to include a page to explain how to install your project and run it (**database – web site – run modules**). (1 mark)
- You have to include two recordings:
 - The first is a demo for your work where you have to include all the required operations in your demo (21 mark)
 - The second is an explanation of your code where you have to include:
 - i. Explain the database you created (3 mark)
 - ii. Explain each remote object and why (3 mark)
 - iii. Explain each mobile object and why (6 mark)
 - iv. Explain the interfaces and classes you used in Remoting (6 mark)
 - v. Explain the Remoting methods' implementation (15 mark)
 - vi. Explain the type you have chosen for remoting and why (3 mark)
 - vii. Explain the implementation of the Remoting server startup (3 mark)
 - viii. Explain the implementation of the proxies on the Remoting client (3 mark)
 - ix. Explain the WCF contracts that you have used (12 marks)
 - x. Explain the implementation of the WCF server and client (12 marks)
 - xi. Explain the WCF deployment (12 marks)
- Only the code is not enough, you have to include the recordings. Homework with no recording will get no marks
- In case of 2 students one should explain the WCF part with its demo and the other should explain the Remoting part with its demo.
- In case of three students, the first should explain the WCF code, the second should explain the Remoting code, and the third should explain the demo for both. One of the students in the group should explain the database and the sections of the project.
- In case of four students, the first should explain the WCF code, the second should explain the Remoting code, the third should explain the demo for both, and the fourth student should explain the database and the sections of the project.
- Each student within the group should have a recording for a section of the project, students that have no recordings with their voices will considered as not participating and so they will get 0 marks
- **A recordings should not exceed 15 minutes. If you need more than that for your Explanation you have to split it into several parts each with 15 minutes only.**
- **Important: TEST YOUR RECORDINGS – No sound → NO marks – More sound breaks → less marks**

• تعليمات هامة

مطلوب رفع ملف مضغوط بصيغة ZIP على صفحة المقرر في مودل باستخدام الرابط المخصص لذلك، ويجب أن يتبع اسم الملف الصيغة التالية:

MWS_ADP_F19_HW_<student1_ID>_<student2_ID>_...zip

أطيب الرجاء بالتوفيق

د. محمد الجندي – د. وسيم الجندي