Enterprise Application Development (CS – F19)

Home Work 02

Deadline: Sunday, 6th November 2022, 11:59pm

Submission Guideline:

You are required to upload your solution (compressed file) on Google Drive and email the link.

Objective:

The objective of this lab is to:

1- Understand N-Tier Architecture
2- Understand Object Serialization
3- Understand File Handling

Problem: -

Title: GPA Calculator

Statement:

In this Homework you are going to create a GPA Calculator for yourself. GPA Calculator helps you convert your subject marks to Grades and GPA.

Requirement:

When your program starts, it should be displaying a starting menu. The student will have the following options on that menu:

1---- Enter Student Data

2---- Output Student Data

3---- Exit

Please select one of the above options:

1- Enter Student Data:

On selecting option 1 system will ask user for the following details.

Name: Anns Shahbaz

Roll Number: BSEF19M007

Subject Title: EAD

Marks: 70

After entering details, system will serialize the object and store it in file. **BUT** instead of marks, student's **GRADE (A/B/C etc.)** should be stored and user is redirected to main menu.

2- <u>Output Student Data:</u>

On selecting option 2 system will read data from file, deserialize it and output it as following:

Name: Anns Shahbaz

Roll Number: BSEF19M007

Subject Title: EAD

GPA: 3.00

Press any key to go to main menu……...

"You can see instead of marks OR grade; student's **GPA i**s printed**"**.

Note:

1- **In case the file is empty or does not exist the system should output following:**

The file is empty or does not exist.

2- **In case the file already has some data, user data should be override.**

<u>BONUS:</u>

Make the writing in green, that is, the data entered by the user is in green.