Basic Cross-Platform Application Programming With .NET

Why should you study this course?

- How to develop a Cross-platform .NET applications?

- How to develop a .NET application supporting some functions concurrently?

- How to develop .NET applications using GUI (Graphical User Interface)?

- How to apply Design Pattern in .NET applications?

Why should you study this course?

- How to develop .NET distributed applications?

- How to develop .NET database applications?

- How to develop ASP.NET MVC Core applications?

- Do you want to earn Certifications from Microsoft?

  https://docs.microsoft.com/en-us/learn/certifications/

Prerequisites

- **Completed:**
  - PRO192-Object-Oriented Programming
  - DBI201-Database Systems

Course Objectives

- Developing multi-threading .NET Applications

- Building GUI applications using Windows Forms

- Building Website using ASP.NET MVC Core

- Using Design Pattern in C#

- Connecting with Database using ADO.NET and Entity Framework

- Building client-server applications with ASP.NET Web API by Windows Forms and ASP.NET MVC Core

Course Description

1. OOP and C#
2. Concurrency
3. Design Pattern in .NET
4. Creating a GUI using Windows Forms
5. Creating a ASP.NET MVC Core application
6. Database Access by ADO.NET and Entity Framework Core
7. Assemblies .NET
8. Files and Streams I/O
9. Working with ASP.NET Web API

Course Plan

See course plan on CMS

Materials/ References

1) Pro C# 9 with .NET 5

   ISBN: 978-1-4842-6939-8

2) https://docs.microsoft.com/en-us/dotnet/core/introduction

3) CMS forums

Learning Environments

- .NET 5 or later

- Visual Studio 2019 or later
  (https://visualstudio.microsoft.com/downloads/)

- MS SQL Server 2014 or later

- A Notebook for reports of labs and assignments.

Course Rules

- **How to conduct**
  - Prepare contents of the next session at home
  - Following lessons in classroom
  - Completing chapter assessments in time and Quizzes (via CMS)
  - *Write reports* of all labs and assignments to your notebook

- **Communication**
  - Class
  - Interchange by FU-HCM CMS, Forum
  - Discussing actively in your team and classroom
  - Free to question and answer

- **Others**
  - Off phone, no game, no chat in class
  - Use laptop under teacher's instruction

Evaluation Strategy

- **Must attend more than 80% of contact hours (if not, not allow to take exam).**

- **Evaluating**
  - 02 Progress Tests (PT, 10%)
  - 03 Assignments (AS, 10%)
  - 01 Practical Exam (PE, 25%)
  - 01 Group Project(GP, 25%)
  - Final Exam (FE, 30%)
  - Total score=10%(PT)+10%(AS)+25%(PE)+25%(GR)+30% (FE)

- **Pass:**
  - Every on-going assessment component >0 and
  - Practical Exam >=4 and
  - Final Exam Score >=4 and
  - Final Result >=5

- **Final exam retake only when not passed**

How to study

- This course is complex knowledge (however, it's attractive and exciting), so you need to keep a tight grip on it
  - **Read**
    - On the books to get the general concept
    - Reference, study, collection from anywhere else (internet, your classmate, forum …)
  - **Attend lectures**
    - Listen, understand, then make your notes
    - Give your explanation about some topic in lectures
    - Ask questions
    - Give some examples that do not exist in your book
    - Practice all the exercises, demo to make your sense
  - **After classes**
    - Discuss your classmate indirectly, on the forum
    - Analyze, design, and implement workshops and assignments. **Write reports** in your notebook
    - Build your team in yourselves to support together in studying

Academic policy

- Cheating, plagiarism and breach of copyright are serious offenses under this Policy.
  - **Cheating**
    - Cheating during a test or exam is construed as talking, peeking at another student's paper or any other clandestine method of transmitting information.
  - **Plagiarism**
    - Plagiarism is using the work of others without citing it; that is, holding the work of others out as your own work.
  - **Breach of Copyright**
    - If you photocopy a textbook without the copyright holder's permission, you violate copyright law.

Enjoy the Course

- Be enthusiastic about the material because it is interesting, useful and an important part of your training as a software engineer.

- Our job is to help you learn and enjoy the experience.

- We will do our best but we need your help.

- So let's all have fun together with C# Application Development!!!

Install tools for programming if needed

Q&A