Faculty of Engineering, Environment and Computing

A203CDE Cross-platform Application Development with C#

Assignment Brief 2019/2020

Module Title: Cross-platform Application Development with C# - 1920T1A	Ind/~~Group~~	Cohort **September**	Module Code: 203**CDE**
Coursework Title: **Practical Application development**			Hand out date: 19/11/19
Lecturer: **Dr L Smalov**			Due date: 19/11/19
Estimated Time (hrs): 10	Coursework type: **Individual Practical**		% of Module Mark: **100%**

Submission arrangement online via CUMoodle: **Upload through Assignment Links**

File types and method of recording: **Visual Studio solution (single zip file)**

Mark and Feedback date:

Mark and Feedback method: **Marks and Comments**

Module Learning Outcomes Assessed:

1. Explain development of applications with the current version of .NET Framework.
2. Use the cross-platform software development tools and to develop applications of the .NET eco-system.
3. Detail the deployment, versioning, configuration and registration

The maximum mark is 100.

TASK: Develop a application for Windows device/Universal. You need to demonstrate a completed application deployed on the emulator or device.

Scenario: The idea is, for a period of time (30 days/8 weeks etc.), you'll track the hydro-meteorological conditions for a given geographical location you are in/selected. As a guidance, the prototype should support the functionality to maintain the following information:

a) add a new location and weather forecast
b) see high/low tidal data for a given time period
c) click the "today's forecast" button which will keep track of the specific data for the given period
d) show all/selection of conditions (hydrometeorological) you are tracking for a given period
e) Store the historical data for your locations

You must demonstrate the functional prototype. Use the github.coventry.ac.uk as a repository for the source code and relevant project documentation.

You are free to use your interpretation of the task as long as you have addressed the key points required.

You are required to submit (Moodle submission – the module web submission will be time limited) 2-3 pages document (pdf) where you should outline the task completed, design consideration, link to Github repository (with MS Visual Studio solution that includes the project completed (or attempted)

and a link to the deployed application. The module teaching team must be given access to your repository and application.

Please be informed that non-submission of the complete source code, documentation and sample set of data on the will result in an unconditional "ZERO" mark. Please note that you do NOT need to consider Web-design/HCI aspects in this coursework.

Mark distribution**:**

Assessment Tasks		
To achieve	**Prototype development with required functionality (60%)**	**Documentation (10%) and Demonstration (30%)**
pass mark 40%	• Basic functionality implemented • Tests partially completed • No compilation errors **Tasks a and b completed**	• Feasible software design specification • Attempt to document the source code • Partially completed prototype
mark 60%	• Completed prototype • All logic, Data Source and Client tier fully developed and functional • Evidence of testing completed • Successful deployment • No run-time errors **Tasks a, b and c completed**	• Fully functional prototype demonstration • Evidence of regular contribution to the source code and appropriate documentation under version control (GitHub) • Solving a given in-class practical task
mark >70%	• All as above • Encryption of the data • Cloud/Web API implementation • Use of a variety of software patterns for implementation • Client ability to log in to use the application **All tasks (a – e) completed**	• All as above • Evaluation of development and deployment challenges • Evaluation of emerging technology

Module staff will request a demonstration of the prototype developed in the scheduled time as well as may wish to interview students regarding their coursework contribution.

Notes:

1. You are expected to use the CUHarvard referencing format. For support and advice on how this students can contact Centre for Academic Writing (CAW).
2. Please notify your registry course support team and module leader for disability support.
3. Any student requiring an extension or deferral should follow the university process as outlined here.
4. The University cannot take responsibility for any coursework lost or corrupted on disks, laptops or personal computer. Students should therefore regularly back-up any work and are advised to save it on the University system.
5. If there are technical or performance issues that prevent students submitting coursework through the online coursework submission system on the day of a coursework deadline, an appropriate extension to

the coursework submission deadline will be agreed. This extension will normally be 24 hours or the next working day if the deadline falls on a Friday or over the weekend period. This will be communicated via email and as a CUMoodle announcement.

Mark allocation guidelines to students (to be edited by staff per assessment)

0-39	40-49	50-59	60-69	70+	80+
Work mainly incomplete and /or weaknesses in most areas	Most elements completed; weaknesses outweigh strengths	Most elements are strong, minor weaknesses	Strengths in all elements	Most work exceeds the standard expected	All work substantially exceeds the standard expected