Description

Mr. Bently is owner of ABC Crusielines . ABC Cruislines hosts weekly cruises. The most popular cruise is the PROG35142 Special which runs in the month of August. The PROG 35142 Special sets sail on a Monday morning and returns each Friday night. The PROG35142 Special will set sail 4 times this August.

Because of your reputation Mr. Bently would like to invite you to contest he is having. He wants you to develop a multi-page web application system where customers and staff can book rooms (cabins) for the PROG35142 Special (You will be competing against 25 others to developing a web application).

There are over 200 rooms spaced over 3 floors in the ship used by the PROG35142 Special. 50 of those rooms are reserved for staff (staff will be able to select their rooms and they do not have to pay for their rooms). All staff are on the first floor.

The remaining rooms are for the customers.

There are various types of rooms for the customers with varying price ranges (I will let you determine the types of rooms and prices). Senior Citizens and families with children get a discount. Customers must be able to cancel their booking within a reasonable amount of time but forfeit a portion of the paid fees.

You must maintain a database (provide Mr. Bently the sql scripts to create the database and tables if you are using database first flow). Please have some users of different privileges populated into the database. The database and its associated table(s) maintains the users and the rooms they are in. Whether you are using database first or code first, you must use EntityFramework.

Obviously when a room is booked, it cannot be booked by somebody else later on.

Admin should have CRUD privileges (think carefully about which CRUD privileges they can have such as reassigning rooms etc). Admin can have complete authority to what they can do on databases!

Your exam must be started from scratch. Only use Web Forms/ASP.NET MVC/Web API . You can use either one of the aforementioned or a combination of them.

Marking Scheme

Able to perform the operations mentioned in the description without error 40 Marks

Develop an SSRS. 10 Marks

Aesthetically pleasing design/formatting for your SSRS 5 Marks

No anonymous users to protected resources 10 Marks   If you do not know what an anonymous user is, see the Note on the last page

Develop one Unit test 10 Marks

Develop one Moq test 15 Marks

Nice visual appearance/aesthetics for your overall system 10 Marks

Intuitive Use/Ease of use of application/Design makes sense   **5Marks (Keep in mind, the harder it is for me to navigate your system, the more marks you will lose. So you can get negative marks for this requirement)**

Conforms to SOLID?

- **Explicitly show me an example of O of Solid in your code   7 Marks**
- **Explicitly show me an example of D of Solid in your code   7 Marks**

Top submission 10 Marks . **In the event of a tie, the student who submitted their exam the earliest will be the winner.**

Second best submission 6 Marks

Third place and below 3 Marks

Total possible marks: 129

Penalties:

Those who do not submit a video recording of a demonstration of their application with audio will automatically get a 0. The demonstration must include you navigating your application and showing the resulting output including changes in your database when you submit info to your application.

Please submit a supporting document (pdf) outlining the gist of your design (no more than 3 pages. If you can explain everything in 1 page, that's great.**).Please include any assumptions made regarding the exam. No supporting document will result in a penalty of 20 Marks**

Poor video presentation can result in a deduction of up to 20 Marks. I expect you to show you navigating your system and showing me the results , including the state of your database before and after you provide input. I expect you to explain the rational of why you designed your system the way you did (ie why you created certain classes, how you incorporated inheritance and abstraction in your exam etc). **Please explain your tests in the video and perform a demo for each.**

Deductions of up to 20 marks if I have a hard time navigating your system

Deductions will be made for poor security (ie is your application susceptible to SQL injection,do you use poor authentication/authorization methods in your application). Indicate in your document and video the security practices you implemented . **Deductions of up to 20 Marks for poor security can be made**

If you reuse visual design from your the group project you will get 0 on the group project and the exam. **This will be counted as plagiarism.**

I have 26 students. I am expecting 26 different exam submissions. Any similarities will be interpreted as plagiarism and you will get a mark of 0.

Do not use code from the major project into the exam otherwise you will get a 0 on both. Think about it. Your partners will also have the same code from your project. If you all use the same code for the project in the exam, you will all have the same code for the exam!! **This will be counted as plagiarism.** DO NOT USE CODE FROM YOUR PROJECT (even if you are working as an individual**). If you do, this will be counted as plagiarism.**

Your video must be no longer than 15 minutes. You will have a grace period of 30 seconds. After that you will lose 2 marks per 10 seconds over. For example if your video is 15 minutes and 30 seconds long there will be no penalty. If your video is 15 minutes and 31 seconds you will lose 2 marks. If your video is 15 minutes and 41

seconds you will lose another 2 marks. Remember, you should have had enough practice with the in class exercises in holding your video to 15 minutes and less **. Keep in mind, if you can tell me all the relevant info in 5-10 minutes, that's great. There is no minimum time limit. Only a maximum time limit before I start deducting marks**

If using database first, if you do not provide sql scripts , you will get a 0 on the exam.

It doesn't matter if the exam works on your machine, what matters is that it works on mine. Therefore don't use any software we did not use in class or any machine configurations we did not discuss. Make sure you are not accessing folders that are not on my machine (ie watch the path you set in certain lines of code)!

I am using the following server to run your exam **(LocalDB)\MSSQLLocalDB**

User Name: MyNameisBond

Password: JamesBond

I will not be changing your code if you do not provide the correct credentials. If you provide the wrong credentials, this will be counted as non working code and you will lose marks accordingly.

To make everyone's life easier during these stressful times, I am giving extended hours for this exam ! (Yay!!!) Because of these extended hours I will not accept reasons as poor internet connectivity as a reason not being able to submit your exam.

Good luck everyone! And remember, I will be very lenient in marking!!! 😊 **Remember, Im just testing if you did the class examples and the in class exercises**

I will not be accepting questions during the exam period.

Your exam is due 7pm of April 14, 2020, but SLATE will accept your exam till 2 pm of April 18, 2020

Like I said, this is an exam with extended hours!

Stay safe my friends!!! Hoping to seeing you all in the future when the quarantine is over!

Note:

Sometimes you have a web page that you want only authorized users to access. Poorly secure web pages will allow users to simply type in the url of the "secure" page to access it. Users that can access a supposedly "secure" page simply by typing in the url are called anonymous users. Your web application must not allow this!