Re: University Module Professional Practice Project Inquiry

Kristian Putman <kristianputman@alumni.york.ac.uk>
Sat 5/18/2024 12:57 AM
To:Richard Casey (s233122) <R.Casey@UOS.AC.UK>

Richard,

Looking good! I'd give the work an 8/10 at the moment, if you wanted to round it off then you could assume one of a few scenarios:

- I am a client looking to buy this code from you; or
- I am a manager looking to receive this code as a work-product.

In both of these instances, I would take the stance that the code does lack contingencies in some areas, for example if a loss of internet connectivity occurred before or during a login attempt with a remotely situated database would this cause the application to crash? If the answer is yes or maybe then you might consider introducing some environmental checks - is the internet enabled, do we have permission from the user to use the internet and so on.

Additionally, your methods lack ///<summary> in some instances, which is not a concern for you if you are writing this code in a one-man-army setup, but the moment other developers are involved, they may be accessing these methods via a DLL in which case you would need much more description. Login code will typically involve both GDPR and Cryptography, both of which can be complex to implement, so the more comments you provide, the safer your code becomes from a business standpoint.

As an end user I wouldn't care for the latter, and as a proof of concept or minimum viable product, you've done a very good job!

Let me know if I can help with anything else mate.

All the best,

Kris

On Fri, 17 May 2024 at 15:25, Richard Casey (s233122) <R.Casey@uos.ac.uk> wrote:
> Kris,
>
> Thank you for that brief. I decided to take on the challenge of the Login page, salted hash and JWT token.
>
> This was actually a very interesting and highly informative brief, I really enjoyed doing it and felt like I learnt a lot about the process. Having only used JSON to save states previously using JWT was entirely new to me.
>
> I wanted to give you a bit of a run down of what I have managed to do and I hope that this will for fill the brief you gave.

I firstly started by simulating the logging in process through unity and generating a JWT Token to be displayed on the console.

After that I set about actually connecting this to a MongoDB database and - *eventually* - I got it to work.

I'd say that in total this project has taken me about 33 hours, a good 6 hours of that was reading up on the JWT Tokens, refresh tokens and the salted hash's - all of their usage, very interesting.

I've attached a video to this email showing the project working. I am currently commenting my code to a better standard and will then be marking the github repository as public when thats done.

I've also attached the code if you wanted to give me any feedback it would be appreciate - there still time to make modifications between now and the end of the module so if you spot anything wrong please let me know.

Many thanks
Rich

Richard,

I completely understand, if the project is only intended to be used for the purpose of assessment, then might I suggest that securing user accounts form the core of the project.

You then have the scope to build the interface in whatever IDE or language that you are most familiar with.

This would also, in my opinion, provide greater career options following the completion of your course, as standards based work (ASA, PCIDSS, GDPR etc) typically has a higher pay attached.

A revised project scope could be:

- A login page;
- that stores the users credentials as a salted hash,
- and allows the user to receive a JWT session token.

Or:

- A game that stores a score variable;
- in a cosmos database,
- with write only permissions.

Something like this would touch on a selection of skills and would be achievable in perhaps 20 hours of work?

All the best,

Kris

On Wed, 24 Apr 2024, 09:38 Richard Casey (s233122), <R.Casey@uos.ac.uk> wrote:

Hi Kristian,

First off, I want to apologise for the delay in my response – it's been a whirlwind of a week. Thank you so much for taking the time to put together such a thoughtful and detailed project brief. The courtroom puzzle/story game concept sounds fantastic, and it's exactly the type of challenge I would love to sink my teeth into.

However, I need to be upfront about my current commitments. I'm working full-time, managing my responsibilities as a dad to two young children, and simultaneously pushing to complete my dissertation. With all this on my plate, I'm concerned about dedicating the necessary time to do justice to the comprehensive project you've outlined.

Given the time constraints and my current workload, I wonder if it might be possible to scope down the project? Perhaps we could focus on one or two key aspects that would still offer a meaningful learning experience but fit better within the limited hours I can commit each week. I'm really keen on the idea of working with you and would love to find a way to make it happen without compromising the quality or breadth of your original vision.

Please let me know if you think a scaled-down version of the project could work, or if you have any other ideas for smaller projects that could be a more manageable workload for me.

Thanks again for your understanding and your willingness to mentor. I'm looking forward to your thoughts.

Best regards,

Richard Casey
BSc (Hons) Games Development (Programming)
University of Suffolk

From: Kristian Putman <kristianputman@alumni.york.ac.uk>
Sent: Wednesday, April 17, 2024 5:08 PM
To: Richard Casey (s233122) <R.Casey@UOS.AC.UK>
Subject: Re: University Module Professional Practice Project Inquiry

Mr Casey,

Without an understanding of your existing skills, this could be tricky, but I'm happy to outline a brief below and see how you get on. I will assume you're using either UE5 or Unity in C++ or C#.

Seven weeks is a reasonable amount of time to make a game, since its for educational purposes I've no doubt that you'll want a varied array of experiences which you'd be likely to encounter in the industry.

Brief

You're a games programmer working in a small team, the game you're tasked with making is a puzzle/story game set in a courtroom.

The key requirements for the project are:

- The player must be presented with a login/registration, so that they can enter an email address and password to create or access an account.
- The player must be able to save their progress to that account locally or remotely.
- The players account should be validated against an online resource such as Azure Cosmos in a secure way (Cosmos is free). You must ensure that your code complies with GDPR and satisfies modern requirements such as NIST Special Publication 800-63B.
- The player should be able to make decisions in the courtroom which affect the outcome of the case.
- The player should receive a score based on how harsh or lenient they are.
- The player should be able to share their score with others via a QR code which can be saved to their device or shared on social media, this might include a fun description of how harsh they are, which can help the game to build a community.

The particulars of the games mechanics, art style and other particulars are up to you.

The skills you should look to develope include an understanding of how to write clean and compliant code, develop a scoring system which tracks to a fuzzy or subjective measure, interface with online or networked resources including a database and produce a game which the player could enjoy more than once without getting bored.

Naturally, the first step for any software developer is always to manage the clients expectations and narrow down any ambiguity in the brief such that the scope is clear to both yourself and the client. If you feel anything is unclear in the brief, your first steps should be to achieve that clarity between us.

All the best,

Kris

On Wed, 17 Apr 2024, 14:02 Richard Casey (s233122), <R.Casey@uos.ac.uk> wrote:

Dear Kristian Putman,

I hope this email finds you in good spirits. My name is Richard Casey, and I am in the final year of my Games Development (Programming) degree at the University of Suffolk. As part of my coursework, I am engaged in a Professional Practice module that requires collaboration with industry professionals on a practical task.

Your experience as a Programmer has prompted me to reach out. I am eager to gain insights from a professional perspective and would be honoured to have you set a project brief for me. This task will be carried out over the next 7 weeks and is aimed at blending academic learning with real-world application.

Please note that this request is purely for personal educational purposes and is not intended to establish any formal commitment from yourself or any associated company. I am approaching several potential mentors with the intention of selecting a project that resonates most with my career aspirations and academic goals.

If you are open to providing this mentorship, I would be looking for:

- A concise task outline that fits within the 7-week project timeline.
- Specific goals or challenges that would enhance my understanding of gameplay programming.
- Occasional feedback, if possible, to refine the project with a professional touch.

Your expertise and guidance would be invaluable to my professional development, and I am flexible regarding timings for a conversation.

Thank you very much for considering my request. I am enthusiastic about the opportunity to learn from your experiences in the field of programming.

Best regards,

Richard Casey
BSc (Hons) Games Development (Programming)
University of Suffolk
[Richard Casey - LinkedIn](#)