COMM 2216 – Proposal Assignment
Option 1 – Website Redesign and SQL database connection

Imagine that you are a technical contractor (make up a company name for your team). One of your clients is Rainbow Records, a growing Vancouver company that sells vinyl records, CDs, audio equipment and memorabilia. They've been growing online due to the pandemic, and now they sell more online than ever before.

Recently, you had a conversation with Lucy VanPatten, the Online Sales Director, about the website. Lucy told you that the website was designed in 2008, when they had only occasional online sales. Now that online sales make up over 50% of the business (and growing!), they badly need an upgrade.

Here is the conversation that you had with Lucy:

You: Hi Lucy. How is business? Are you still growing?

Lucy: Yeah. We're adding new products and hitting new sales records every week! The pandemic has been great for our online sales. We're shipping all around the world now – Europe, South America, you name it! It's been busy but very exciting. But all that growth comes with a problem.

You: What do you mean?

Lucy: Well, the website was built in 2007, when all we had was a small retail store. Now the website is one of our primary revenue sources, but it doesn't run reliably on all browsers. Customers have been complaining.

You: What kinds of complaints?

Lucy: Well, they say it's hard to find items on the website, for one thing. There are too many categories and the search function doesn't work that well. It also looks terrible on mobile phones and iPads. The website doesn't resize like it should for small screens – people are shopping with their phones nowadays, and our current website makes that basically impossible.

You: Hm. I think you probably need a responsive design – a new layout that detects the browser and screens size, and adjusts the layout for the customer.

Lucy: Oh. I didn't know to call it. Thanks. Responsive design. I'll remember that.

You: Yes, it's very common nowadays. It's not that difficult to do using today's coding languages. Are you having any other problems, aside from the layout of the site?

Lucy: Yes, I think there is some back-end stuff that needs upgrading. But I'm not really sure. I don't really understand the technical details too well. I just think that we spend too much time printing out orders.

You: I see. When a customer makes an order, how do you find out about it?

Lucy: Well, the Credit Cards get processed and that goes directly into our bank account, so that seems to be working fine. The problem is that every time we get an order, it comes into the office computer as an email. Then we print the emails and type out shipping labels. There has to be an easier way.

You: Printing and typing. Oh my. I suppose you also have to give the paper order to the warehouse so they can package the order and ship it?

Lucy: Yes. It's a real headache. It used to be no problem when we got a dozen or twenty orders per week. Now, it's sometimes 50 orders per day. My poor assistant – all she does is copy and paste ordering information from the emails onto shipping labels. It's very time consuming, and prone to errors. There has to be a way to automate it.

You: Yes, there certainly are lots of solutions. What kind of database does your warehouse use?

Lucy: I think they said SQL. It's pretty new actually – we hired a guy named Alex last year, and he's really streamlined the warehouse operations. It really works well – they have all kinds of reports that track inventory and manage operations in the warehouse. Alex is a real wiz. The problem is the connection from the website to the SQL database. I think Alex said the website is hosted by AWS, whatever that is. He said it should be pretty straightforward.

You: AWS stands for Amazon Web Services, which is a good choice. I guess Alex doesn't have time to redesign the website?

Lucy: No, Alex is more a logistics person. That's why I'm calling you – can you fix the website layout, and connect it to the AWS database?

You: Yes, but sounds like it would be best to do a complete redesign of the site, from the ground up. There is no point in going through all of that old layout code. It will run better and be faster development if we just start from scratch.

Lucy: That's ok by me. Of course, Alex can help provide all the info you'll need about the database. You can design a website that will connect to it to display products. Once the website is connected to the database, Alex can manage all the orders without us having to print them all out!

You: Sounds good. Of course, we'll need a few meetings with Alex once we get started, and probably again at the end of the project when we're ready to launch. We can work form our own office, but it would be a good idea to visit the warehouse a few times and spend some time there, until we have a clear integration plan. Is Alex ok with that?

Lucy: Yes, and we have plenty of space in the warehouse if you need to spend a few hours per week there. Just let us know, and we'll clear off a couple of desks for your team.

You: That sounds great. Do you have a budget in mind for this project?

Lucy: In terms of cost, since we're growing I think I can get any reasonable amount approved, as long as it's not out of range with industry pricing, and we can show a

clear need in our operations. But I'll need a formal proposal to clear it with senior management. Can you put some ideas together for me in a proposal?

You: Yes, absolutely. I'll need about two weeks to put together a professional document that will give everyone confidence in the project. It will be subject to change of course, until we get finalize all of the details. But it will give everyone a clear idea of what's involved.

Lucy: That would be great. I have a senior management meeting coming up at the end of the month, so I could present your plan then. I look forward to reading it!

Assignment Instructions

This is a 2-person assignment.

Write a simple proposal, based on the conversation above. You may use any technology you like, as long as it will reasonably do the job required. Your choice of technology is *not* graded, only your ability to write persuasively about it.

Please write **ALL** of the following sections:

- A **Letter of Transmittal,** addressed to Lucy VanPatten
- A **Title Page**, including the date, document recipients, your name, company name, and a title for the document
- An **Introduction**, explaining the problem that the client is having, your solution, and the main benefits of your solution
- A **Project Details** section that is divided into logical, coherent sections, using appropriate subheadings
- A proposed **Schedule** that is divided into logical phases and provides enough time, including a milestones, testing, etc.
- A proposed **Budget** that outlines the main costs, and explains them clearly and thoroughly.
- A Conclusion and Recommendations.
- A References section for any research related to hardware or software, costs, or scheduling. Please use IEEE Referencing format.

A few tips:

- **Please write accurately, but simply. Don't over-complicate things**. If you struggle with grammar, ***write short sentences*.**
- Please write complete sentences in short, focused paragraphs, and use frequent and meaningful sub-headings.
- Use simple and consistent wording and formatting
- Use positive language, and highlight the *benefits* of your plan to the reader.
- Please don't be too casual. Make sure that you write clearly and fully, and make all of the logical connections explicit. This is a formal document, and your writing should reflect the professional nature of the assignment.