Task 6.3 HD: My Awesome Tutorial

This is a High Distinction Task

For top results in this unit, you need to demonstrate excellent achievement of the unit learning outcomes. You need to demonstrate your ability to explore networking concepts beyond the unit content. For this high distinction task, **you will be conducting research on QUIC and elaborating your research outcomes in a video tutorial**.

Task Requirement

Present evidence that you have been able to conduct the research on QUIC according to the instructions provided and prepare the video tutorial. You need to submit the link to your video tutorial and your summary and reflections on your learning and evidence to OnTrack.

Task Instruction

For this task, you will be conducting research on QUIC and then prepare your own tutorial on QUIC. The tutorial should extend the knowledge you gathered in Modules 1, 2 and 3. You could use the following questions and tips (but not limited to), as a guide of a range of research methods (but not limited to) in regard to **literature review**, **hands-on testing**, **data analysis**, **visual representation**, and **presentation of the results**, and prepare the tutorial on QUIC.

To demonstrate a proper literature review for the following areas (but not limited to):

- What is QUIC?
- Why we need QUIC?
- What are functionalities and frame formats of QUIC?
- What are the advantages and disadvantageous of QUIC over other protocols that are currently being deployed to provide the same fictionalities?
- Discuss the network applications that use QUIC.
- Are there any security threats associated with QUIC? If yes, what are the security threats and how we can mitigate those threats?
- Discuss about the scalability of QUIC.

To demonstrate proper and relevant hands-on testing and data analysis:

- Present analyses of QUIC in Wireshark, you can discuss the most important things such as (not limited to) handshake (if there is any), initial packet transmission, and QUIC specific parameters used highlighting the differences between other associated protocols we learnt in this unit. Please note that you should be able to capture the behaviour of QUIC using Wireshark. **You should also include the recording of your screen in the video.**

To demonstrate proper usage of visual representation, and clear presentation of the results:

- Please make sure that **your tutorial can be easily understood** by the audience who has a basic understanding of HTTP, TCP and UDP.

- Your tutorial should have **a proper flow and include diagrams and/or tables** to make the tutorial more readable.

- Your tutorial should cover a wide range of topics related to QUIC, **showcasing your in-depth research,** and understanding of the subject matter.

- **Your video tutorial should be around 12 minutes**. Too short (less than 10 mins) or too long (more than 14 mins) tutorials are not accepted.

- In this tutorial, we are looking for quality over quantity and your ability to present your research in concise manner that audience can easily follow and understand. Please make sure that **you include your audio, video, and screen captures when explaining the concepts and analyses that you present in your video tutorial.**

Task Submission Instruction

You need to submit the following files to OnTrack:

1. A pdf containing the link to your video tutorial and any relevant evidence.
2. A pdf that consists of your summary and short reflections on your learning.