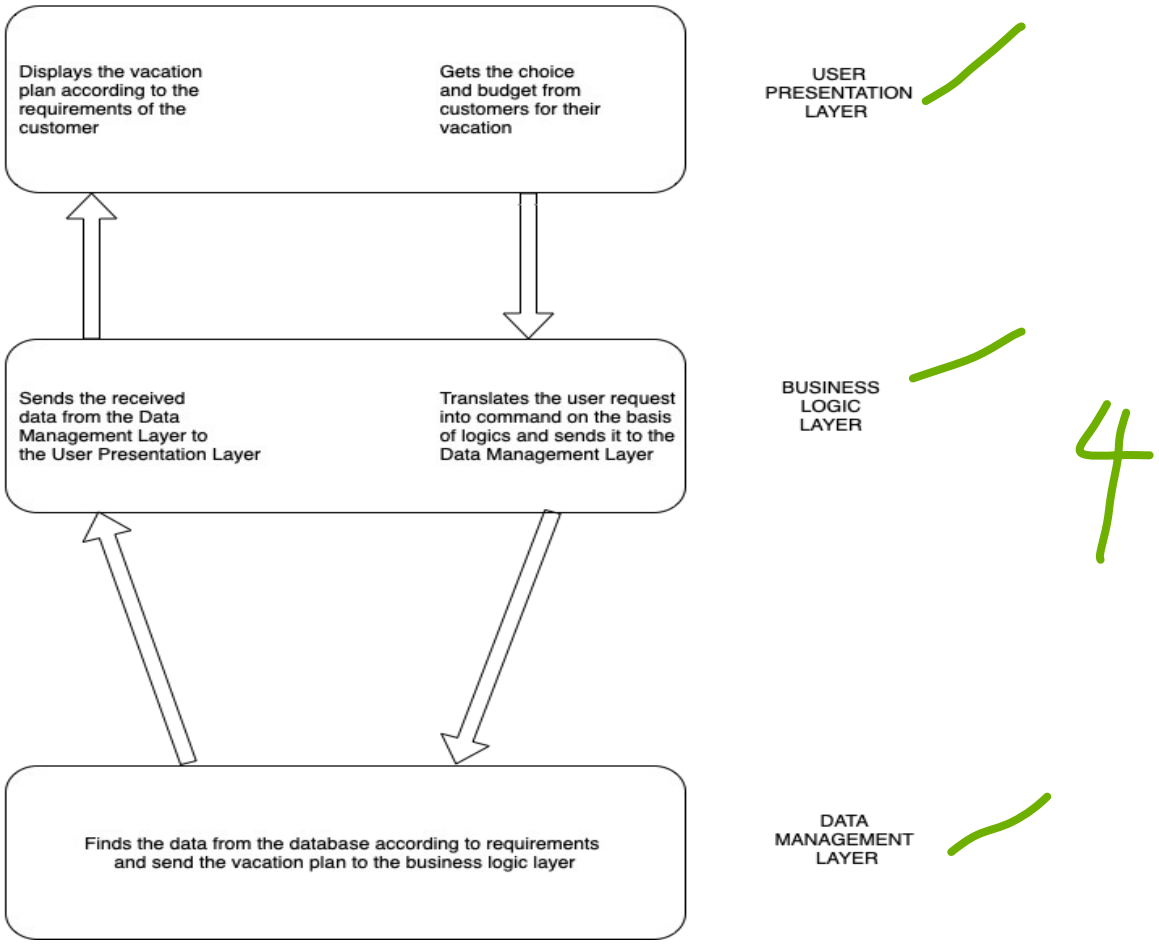
DCF255 Assignment 1

Introduction:

This Assignment is an individual task and worth 5% of the total assignment grade (15%). Answer the following questions and support your answer with diagrams as per your answer and submit it on the link provided on MySeneca under DCF255.

1. A 'Travision Trips' is an e-travel portal to help travelers/tourist a complete travel solution. The company's vision is to provides its customers a platform where they can plan their vacation themselves. It provides its customers a to craft their vacations as per their budget and choices. Their services includes lodging, transportation (that includes car rental services, bus trips, rail, air) and leisure activities. To get the users must logged in with their account and once users are logged in, they provide their choices as well as the budget. The application gives suggest the possible solutions as per choices provided by the user. To provide these services 'Travision Trips' has developed an E-commerce solution 'Travision Easy Access', that provide users an access to all the services via their software. 'Travision Easy Access' have direct accesses to the databases of all the service providers whose services can be accessed via "Travision Trips' web portal. Your task is to draw and labeled an n-tier architecture of 'Travision Trips'. [5Marks]

ANSWER -1



2. Structure the airline travel system by supposing that you travel from Toronto to London by air.
    a. Identify and discuss the series of actions you take in a five layered architecture from the start of your journey at Toronto and then five layered actions at the arrival on destination London. [5 Marks]

ANSWER 2(A) :

It can be described with that of TCP/ IP Model : ---

➔ **CANADA :**

5 Layer (APPLICATION): Book the tickets for travelling to London according to your choice and requirements.

4 Layer (TRANSPORT): Reach the airport for taking the flight to London and take a print of your tickets.

3 Layer (NETWORK): Check in with your luggage and complete all the formalities required to take a flight.

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2 Layer (DATALINK): Go to the required flight terminal on airport and reach to the plane and find your seat, according to the ticket and settle yourself before the flight and follow the instructions.

1 Layer (PHYSICAL): The plane will take off in order to reach London after checking the weather of the route and other requirements before take off.

➔ **LONDON:**

1 Layer (PHYSICAL): The flight will land according to the terminal number required and settle to its fixed place.

2 Layer (DATALINK): Leave the plane, once it is instructed to everyone that they can leave their seat safely now.

3 Layer (NETWORK): Reach to the destination where you can pick up your luggage and proceed to the counters for further details.

4 Layer (TRANSPORT): Complete all the formalities and details before leaving the airport.

5 Layer (APPLICATION): Leave the airport according to the gate number provided on tickets and reach to your desired destination.

b. Support your answer by drawing a layered architecture at the starting point of the journey and the destination. Your answer must identify and discuss the action identified both at Toronto and London. [5 Marks]

ANSWER 2(B) :

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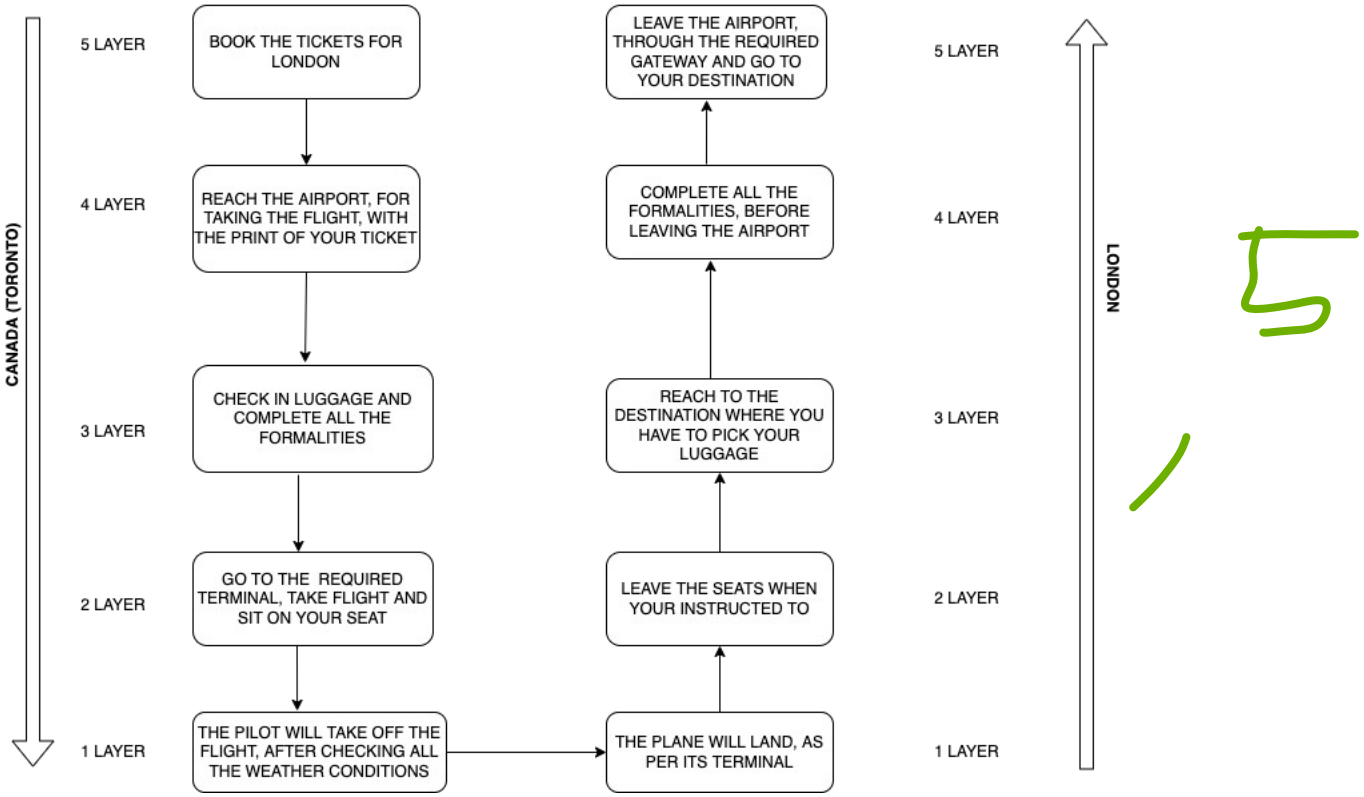

3. Assume that you are accessing a Seneca website from your home computer (desktop/laptop/tablet).
    a. Identify and discuss the method used at your home to access the Internet and then connection with the Seneca web server. [5 Marks]

    PROCESS OF ACCESSING TO THE INTERNET AND THEN CONNECTION WITH THE SENECA WEB SERVER : -

    1. TURN ‘ON’ YOUR LAPTOP.
    2. AFTER TURNING ON, CONNECT YOUR LAPTOP WITH THE ACCESS POINT (ACCESS POINT IS BASICALLY A DEVICE – THAT CREATES WLAN [Wireless Local

Area Network]) . It connects us to a wired router, switch, or hub via an Ethernet cable , and projects a WIFI signal to a designated area.

3. After connecting our laptop, to a wired router, switch, or hub, we get an access to WIFI or Internet. By this way, we can get access to the Internet.
4. Afterwards, the request of accessing the Seneca's web server, made by the user -goes to the proxy server (It is a router or a system that provides a gateway between users and the Internet). So, in order to give a response to our request, for accessing the Seneca's web server, the proxy server, gives the control to the LAN Border Router, here the 'Thread Border Router' – connects the thread network to other IP-based networks (Here, Seneca network), which we wished to get connect with our laptop.
5. This way, it gets us connect to the Seneca's Border Router (due to the IP Address associated with the thread network). After getting into the Seneca's Border Router – it makes a request to the Seneca's Proxy Server, to access the Seneca WebServer, so the proxy server, in response allow us to access the WebServer of the Seneca, since it is a gateway between the user and the Server, which passes on the request from one end, for accessing another server on the Internet.
6. Finally, we can get to access the Seneca's WebServer. By this way, we can get an access to Seneca's WebServer from our home Laptop.

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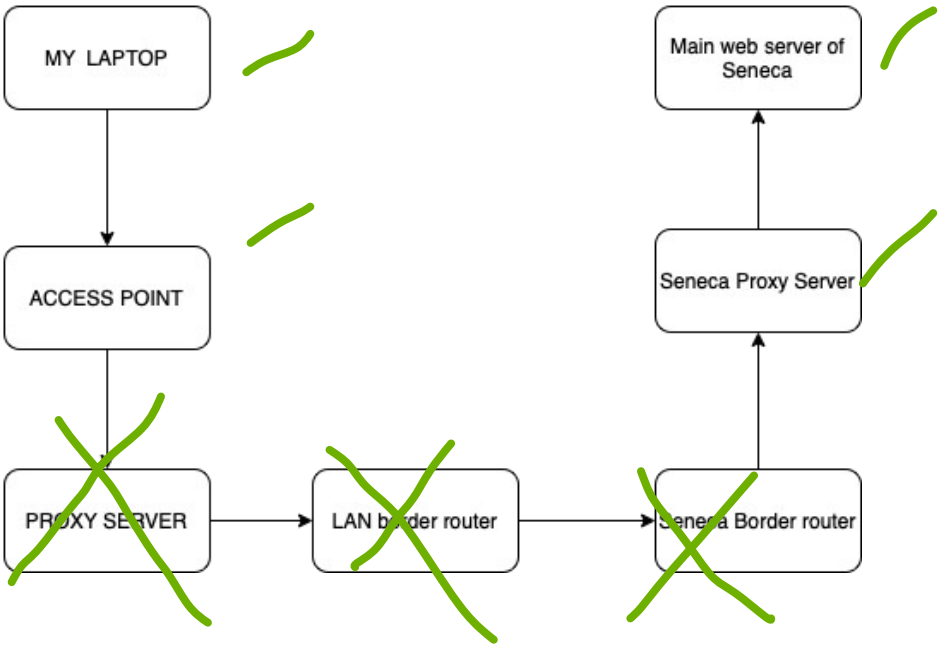
b. Sketch/draw a network connection from your device to the Seneca web server. [5 Marks]

ANSWER 3(B) :


MY LAPTOP
ACCESS POINT
PROXY SERVER
LAN border router
Seneca Border router
Seneca Proxy Server
Main web server of Seneca