SECP1513 - SECTION 04

DISCUSSION 01

ASSIGNMENT: VIDEO DISCUSSION OF CHAPTER 5 THE SYSTEM UNIT

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TABLE OF CONTENT

PROBLEM BACKGROUND

1. Overview of Project

1.1 For this project we plan to create a system that relates to online ticket booking for citizens to use it as another medium to get their tickets. It will help the end-users to make them purchase the tickets whenever and wherever they are.

1.2 Our project focuses on solving the problem by implementing 4IR technology into it.

1.3 This project can explain how the 4th Industrial Revolution expanded its network around the world. Furthermore, we used this opportunity to use one of the 4IR Technologies which is Big Data Analytics as we collect all the data that are related to the theme park in Malaysia and put it on our interface.

1.4. This online booking system is a software solution that allows potential guests to self-book and pay through your website and other channels, while also providing users with the most up-to-date tools.

2. Problem Statement

The project is done to overcome some problems that consumers could go through and ensure that consumers are making use of the 4th IR technology to ease their daily life.

2.1 Consumers face a hard time buying tickets when arriving at the theme park as it is a hassle to queue and wait for others to purchase their tickets.

2.2 Consumers have trouble booking for tickets without the online ticket system as they have to wait for the theme park's business hours which may be a busy time for the consumers itself. This is because business hours are work hours for consumers.

2.3 Consumers have to keep their physical tickets with them at all times and there might be a possibility that they lose their tickets.

3. Proposed Solution

Regarding the problem statements that have been justified, we proposed the solutions to solve the issues that end-users faced.Based on the problem statement, we're actually implementing the solutions based on a few methods.

3.1 We implemented the prototype which uses the cloud computing architecture that is connected to the Internet services that has expanded the network to help the end-users to actually save up their time for purchasing their theme park tickets wherever they are.

3.2 We implemented the prototype to help the end-users to purchase their theme park tickets at any time since some of the people in our country have different work hours and it is hard for them to get the best deals or lower price tickets since they need to buy them at the retail store.

3.3 We implemented the prototype which can make the end-users not care or worry about lost ticket issues since our project provides cloud storage to save their theme park tickets in a secure place.

4. Objectives

The design's main goal is to fulfill the need as specified in the feasibility study. We have a few goals that we keep in mind.

4.1 Practically, the system is quite stable and simple enough for people of average intelligence to run.

4.1.1 Everyone can access this online theme ticket whether they are young, adult or teenagers.It's simple to use, it's a tried and true way, and both the user and the admin system are used to it.

4.2 We attempted to include accuracy, timeliness, and comprehensiveness of the system output in our efforts to improve efficiency.

4.2.1. This system will make sure the user booked the correct ticket and avoid mistakes (accuracy).

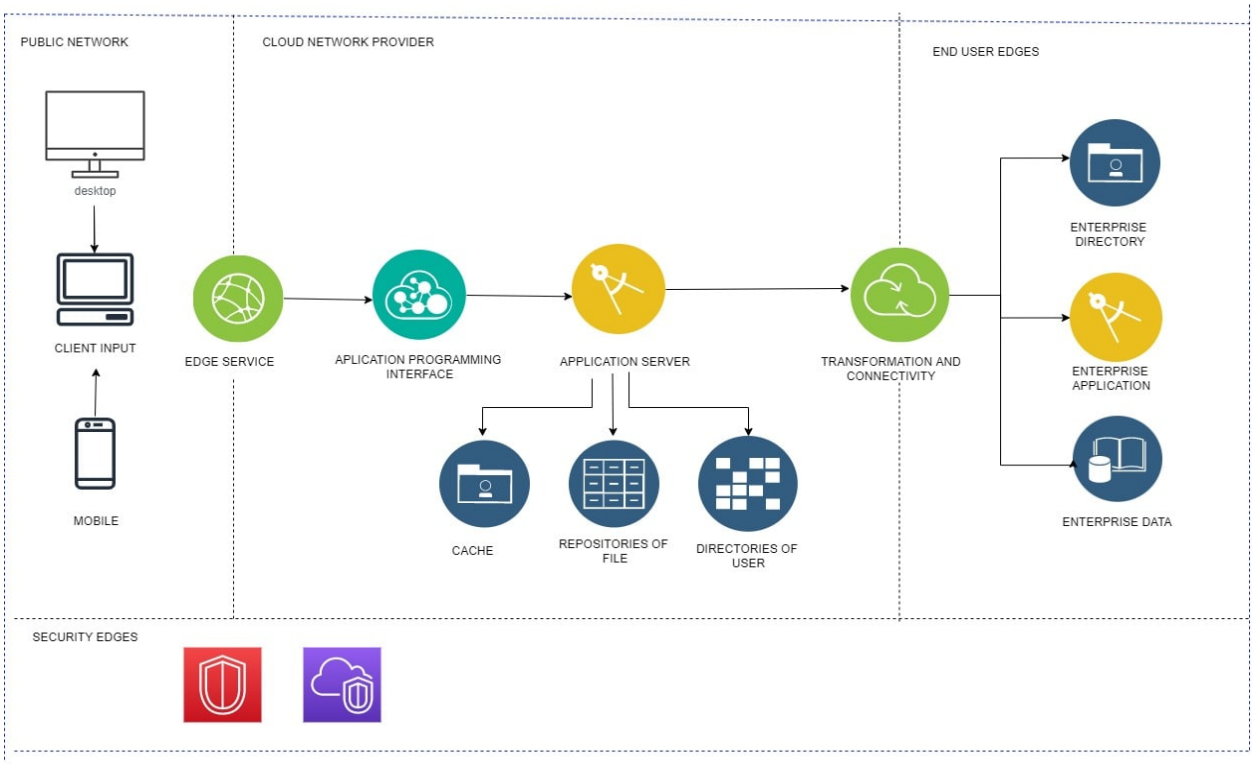
4.2.2 It's simple to keep track of your schedule, and can save our time and no need to queue up.

4.3 cost: it is preferable to aim for a system with the lowest possible cost, provided that it meets all of the requirements.

4.3.1. We do not need to waste our money to go there just to book a ticket, instead we are ready to book an online ticket just at home.

SUMMARY OF PROPOSED PROTOTYPE

Architecture Planning and Design



A.Security

- Also called cloud computing security
- Joint duty between the cloud provider and the customer.
- The Shared Responsibility Model divides responsibilities into three categories :
    - Provider
    - Customer
    - Service Model
- Entails securing cloud environments against unauthorized use/access, distributed denial of service (DDOS) attacks, hackers, malware, and other risks.
- Cloud security is the safeguarding of data saved online through cloud computing systems against theft,leakage, and erasure.

- Refers to steps made to safeguard digital assets and data held online through cloud service providers.

B.Edge Services

- A component which is exposed to the public internet
- It acts as a gateway to all other services, which we will refer to as platform services.
- An example edge service:
    - Nginx as a reverse proxy for two resource servers. Requests for images are routed to one server, while requests for text are routed to another.
- The edge service is Knewton's interface to the public internet
- To maintain high availability, our edge service runs as a cluster
- Edge service nodes register with the load balancer upon startup, which then distributes requests across the cluster.

C.API (Application Programming Interface) Management

- It shows how computers or applications communicate with each other.
- It is between an application and the web server, so the API acts as an intermediary layer that processes data transfer between systems.
- These are how an API works:
    - A client application initiates an API call to retrieve information that is also known as request.
    - After receiving a request, API makes a call to the external program or web server.
    - The server reacts with the requested information.
    - API transfers the data to the initial application's request.

D.Application services

- Caches

  -it is possible to catch and handle errors that occur during the execution of a workflow.

- Repository of files

  -In CodeCommit, a repository is the most basic version control object.It's where you keep your project's code and files safe.It also keeps track of your project's history, from the initial commit to the most recent revisions.You can collaborate on a project by sharing your repository with other users.it is like a structure where firearms are kept.

- Directories of users

  - It's possible for an IT administrator to administer Microsoft Active Directory (AD) on the cloud. Facilitating the configuration of user and group data, as well as providing end users with access to AWS cloud services.

E.Transformation and Connectivity

- Enterprise Directory
  - Acts a place to store information about a certain company, its customer and also other resources.
  - An common example that is an enterprise directory is the Domain Name System (DNS).

- Enterprise Applications
  - Aims to integrate and run computer systems at all stages of enterprise operations to promote the work cooperation and coordination of the entire enterprise.
  - There are three main enterprise applications which are enterprise systems, customer relationship management and supply chain management.

- Enterprise Data
    - Enterprise data management is an organizational feature that accurately defines, easily integrates, and effectively retrieves data for both internal applications and external communications.
    - It helps in ensuring the data is accurate and also allows organizations to manage their huge collection of data.

Potential clients

- This system has a big potential for future growth. Big vacation companies can purchase our system for their customers to purchase online tickets more easily.
    - Because our prototype contains all of the details for all of Malaysia's theme parks, large corporations will use it to compare the pricing for all of our country's theme park tickets. It is not limited to companies in our country, Malaysia, but to companies all over the world, as our country is a global tourism hub.

- This system can be used by anyone, young or old because it is convenient and easy.
    - Students can use this online system to buy their ticket for their school trip during the holidays and there is no need to queue up .
    - For family vacation planning, senior citizens can book a ticket without the assistance of their son.

CONCLUSION

In conclusion, we strongly believe that this project can fulfill the demand in the industry. With the involvement of 4th IR technology in this project, it will compete with the other megaprojects from companies around the world.

Limitations

users must have access to the internet if you operate excursions and activities in isolated places where they can't access online, online booking may not be the best option for them. To monitor your reservations and add online booking, it will need dependable internet access

Other than that, the limitation is from the citizen itself.It is because our country is in the process of transitioning to the Fourth Industrial Revolution (4IR), the constraints of this project are a lack of technological expertise among our citizens. We might claim that Malaysia is behind schedule in terms of modernization due to a variety of challenges in economics, politics, and other areas. It is demonstrated by the fact that Japan is one of the countries that is very rapid in terms of modernization, whereas our country is still in the process of engaging with 4IR. Japan, for example, has been actively advancing precision medicine, as evidenced by projects like the National Cancer Center's use of big data from cancer studies to find new biomarkers for clinical applications and the New Energy and Industrial Technology Development Organization's (NEDO) efforts to develop biomarkers for stroke and kidney failure. One reason such projects have been moving forward so swiftly in Japan is the country's aging population.

Next, the admin must be prepared for a surge of new users because many clients prefer to book online from their computers and mobile devices, thus online booking software is a great method to attract new users. Growing too fast can be difficult if running a small system with insufficient people or resources to extend activities.

Contributions

Despite having certain limitations in this project, it will still benefit a lot of parties. The use of technology will make it more efficient for companies and they can also keep track of what their customers prefer by looking into the data collected. It also can increase our country's economy due to big company involvement in the tourism industry to promote their business either way for local citizens or tourists. For example, this kind of interaction with the other companies around the world will make our Gross Domestic Product (GDP). Why ? It will make Malaysia being noticed by other countries and Malaysia will have the opportunities to expand its network in other countries.

Next, it will benefit the user as this system makes the payments simpler and quicker. The admin can ask the user to pay when they book, which will increase the admin's revenue and relieve them of the anxiety about payments when the user arrives. Furthermore, in the event of a no-show, the admin can keep a portion of the money as compensation.