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BSIT-4D

SIA-101
September 12, 2023

**Assignment 1**

**Instructions:**
**Situation 1**

Create a reaction paper of the article below.

During the late days of December, the Bank of the Philippine Islands (BPI), a well-known banking institution led by Ayala, encountered a significant problem that resulted in a sudden disruption of their online banking services for their clients. This disruption left many customers feeling confused, frustrated, and anxious.

Numerous clients took to social media to vent their anger and disbelief at the situation. Online transactions, balance inquiries, and other banking activities became inaccessible and unauthorized. According to BPI's official statement, the issue was attributed to a **technical glitch**, and they reassured their customers that their funds remained safe and secure. BPI added that these sudden disruptions only happened between the duration of December 30 and 31, 2022.

In an update issued, BPI said the listed bank has resolved the issue, *stating "We are pleased to inform you of the successful resolution of duplicate transactions on affected BPI accounts,"* it said.

But this statement would raise more concerns, where some clients complained about transactions being posted twice and were made outside the December 30 and 31, dates given by the BPI.

As a project manager, how will you answer the following:

**- What is the issue?**

The issue is about the "technical glitch" that occurred in the Bank of the Philippine Islands' (BPI) computer system, which happened in the late days of December 2022. This sudden disruption caused customers to experience unavailability of its online banking, unauthorized withdrawals, inaccessibility to their accounts online, failure to perform transactions and check balances.

**- Who are affected in the issue?**

First and foremost, the most glaringly affected group by this issue is BPI's customers who were using their online banking services when the problem occurred. These customers had placed their financial resources in the bank's care, and this issue has disrupted their financial activities, causing potential stress and anxiety as their funds are at risk.

Secondly, BPI's customer service representatives, who were directly involved, were the initial point of contact for customers, dealing with their inquiries, complaints, and requests for assistance. They went through every complaint despite having some clients who are hard to deal with.

Thirdly, BPI as the banking institution itself is adversely impacted. This incident has eroded trust, leading to doubts about entrusting financial assets to the bank. This could harm the bank's reputation, result in the loss of existing customers, and deter potential new customers from establishing relationships with the bank.

In an indirect manner, shareholders and investors are also affected. The incident may have repercussions on the stock price and the value of their investments in the bank.

**- What are the possible factors of the issue?**

This incident has created significant disturbance and confusion that is linked to various potential root causes. These include cybersecurity threats and attacks, unauthorized data manipulation and breaches, compromised servers, software glitches or mistakes, failures in the IT infrastructure, human errors, and network problems, particularly in the configuration of the system's database.

**- What are the proposed solutions to prevent the issue from happening?**

As a project manager, our priority is to prevent future technical issues at BPI, we need effective and regular testing and quality assurance processes, including thorough checks for software updates, performance, security, and user experience, to identify and mitigate potential risks. Implement redundancy and failover measures, along with incident response and disaster recovery plans, including backup systems, to handle problems effectively. Take cybersecurity seriously, continuously improving intrusion detection and prevention systems to secure access and provide regular updates. Ensure the overall system's performance, including hardware and network infrastructure, through regular maintenance.

**- Who are involved in the solution? Define each role:**

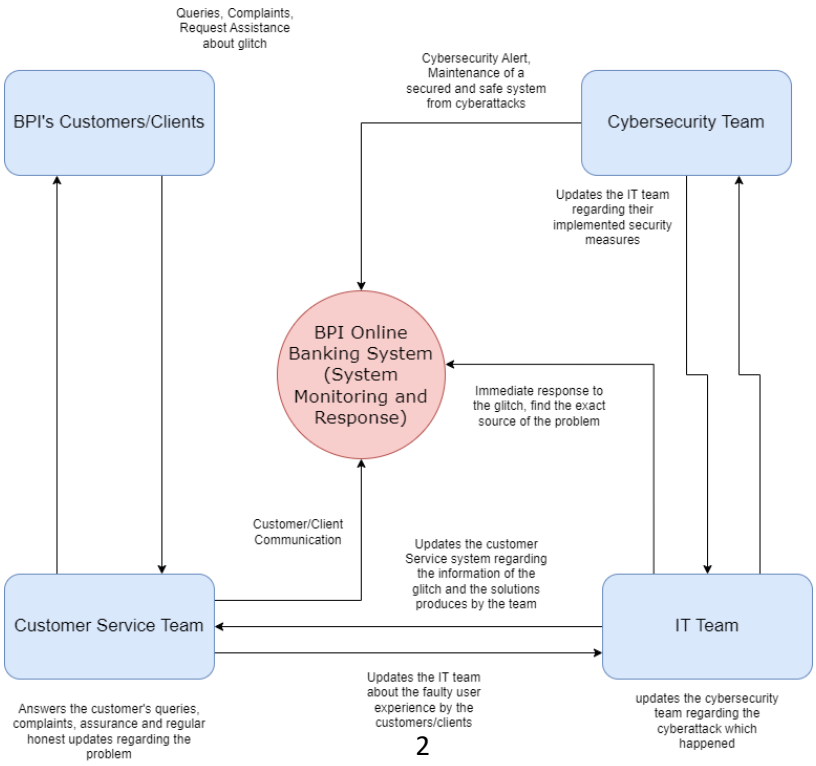
**Clients/Customers:** Customers are actively involved in implementing solutions. Their cooperation is vital in securing their accounts, remaining vigilant during issues, and following established protocols and practices.

**IT Team:** This group, including Software Developers, System Administrators, Network Engineers, Database Administrators, Backup Specialists, Quality Assurance Testers, and the Project Manager, is responsible for pinpointing software bugs, coding errors, and ensuring smooth system performance. They maintain IT infrastructure, like servers and databases, and uphold data integrity and backups.

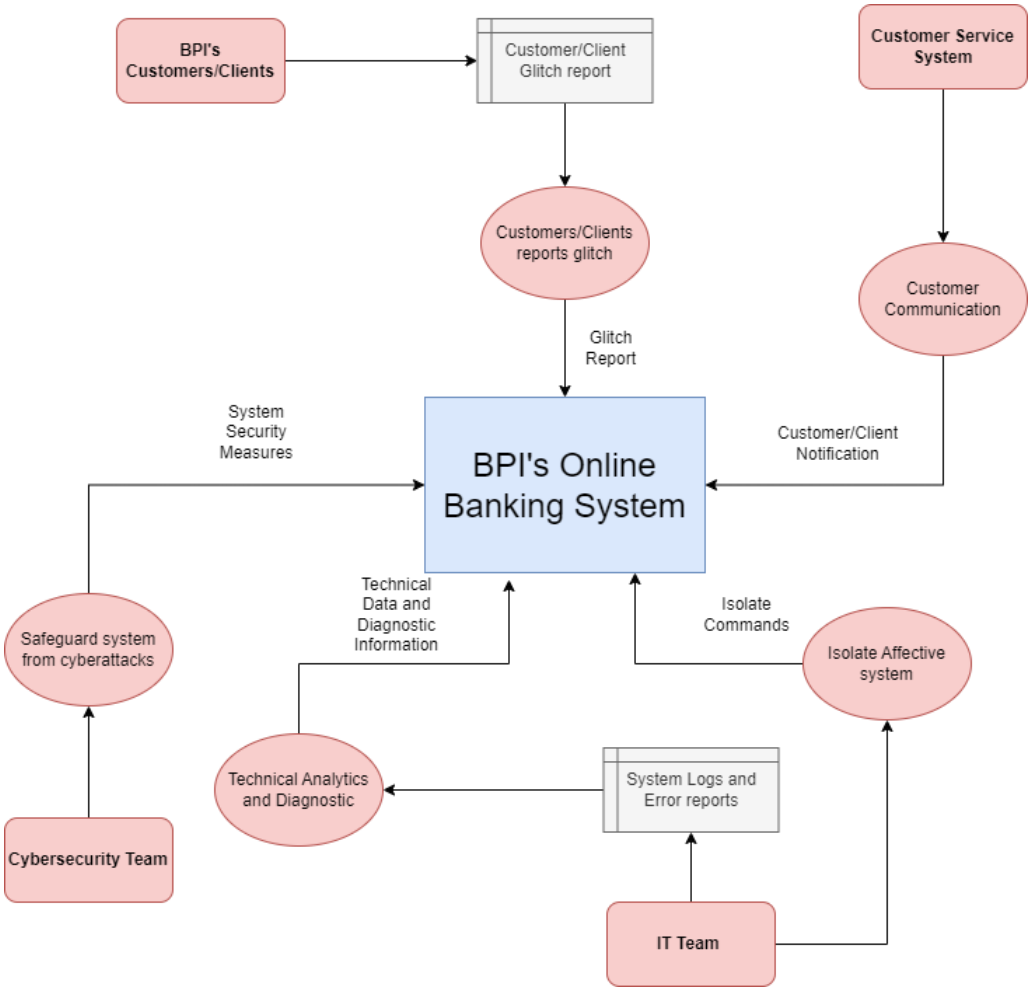
**Customer Service Team:** Serving as the initial contact point for customers, they handle inquiries, complaints, and guidance. They also facilitate clear communication between the IT team and customers to address concerns effectively.

**Cybersecurity Team:** Comprising security analysts, engineers, and penetration testers, this team detects unusual activity, enforces security measures, and mitigates risks proactively to prevent exploitation.

**A. CONTEXT DIAGRAM**



**B. DATA FLOW DIAGRAM**




**Situation 2**

PSU portal(during enrollment)

As a project manager how will you answer the following

- **What is the issue?**

  The issue is having thousands of students access the PSU portal at the same time, which the Portal can't handle that many users. The problem occurs every enrollment when several numbers of students try to access, send requests, and login to their PSU portal accounts simultaneously in one day. With the issue mentioned, It's causing delay to the enrollment to the scheduled year level to enroll that day, compromising personal and future plans.

- **Who are affected in the issue?**

  **Enrollees/Students** - Enrollment delays can have significant consequences on students' academic journeys, including the potential loss of their preferred class slots, disruptions to their schedules, the necessity to make changes to their course selections, and the anxiety of encountering portal enrollment closures.

  **PSU MIS/IT Support** – As the intermediary between students and the IT Team regarding this issue. They well be handling a range of matters. These include fielding complaints, responding to inquiries, and assisting students, academic departments, as well as faculty administrators and staff with their concerns.

- **What are the steps to implement once the issue occurs?**
  1. Remain on standby and promptly respond to reports of problems coming from the university, faculty, or students.

  2. Given the recurring nature of this problem during each enrollment period, prioritize continuous monitoring of the portal's performance.

  3. Determine the underlying reasons for delays and errors, like the database script errors observed in the previous enrollment.

  4. React swiftly to the issue, including temporarily restricting user access and implementing rapid solutions to enhance performance.

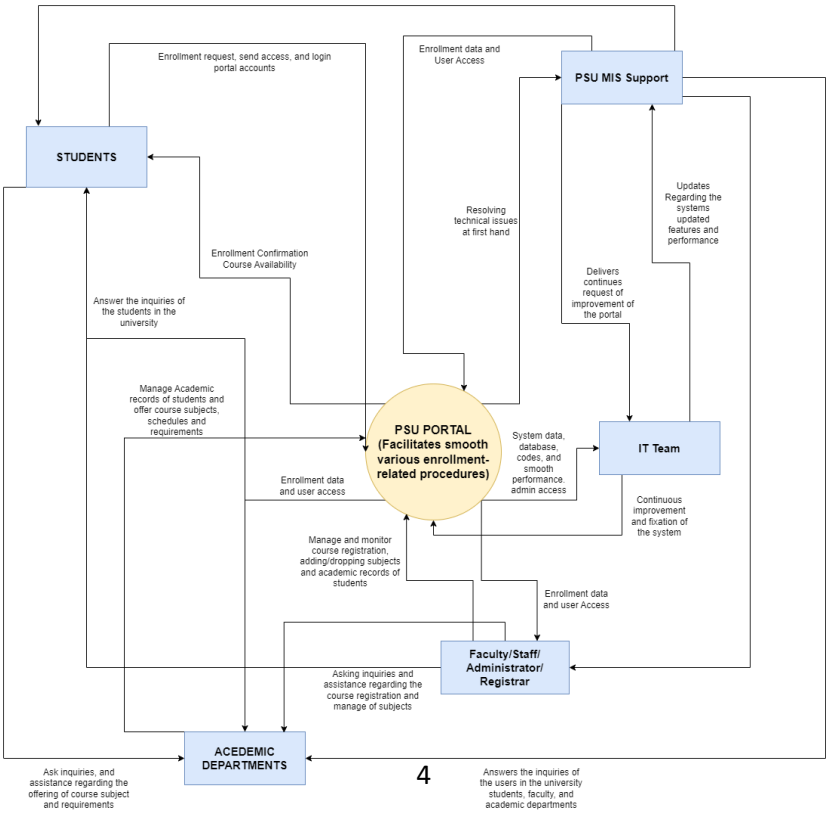
- **What are the possible factors of the issue?**

  Several factors contributed to the enrollment period's issues. One key factor was the substantial user traffic, with numerous simultaneous requests overwhelming the database and the technical infrastructure of the portal. Another factor to consider is the portal's system design, which lacks scalability, speed, and high-performance capabilities. Additionally, the complex enrollment procedures further hindered usability for users.

- **What are the proposed solutions to prevent the issue from happening?**

  Fix the PSU Portal so that it can cater high amounts of user at a time, and simplified the enrollment procedure to lessen the time using the portal, it could also benefit the Administrator because it could definitely lessen the work every enrollment, It should maintain consistency in terms of its performance, reliability, speed, scalability, security and should be regularly updated to prevent overwhelm.

## A. CONTEXT DIAGRAM



**B. DATA FLOW DIAGRAM**