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BSIT 4A

**Assignment #1**

Companies: Spotify

Case Questions:

**1. How they uses Microservices?**

Answer: Spotify provides a range of services including, music streaming, podcasting, artist’s playlists and personalized suggestions among others. To manage these functionalities efficiently, Spotify uses microservices where each service is given its own designated responsibility; for example one service retrieves songs, another searches for music, provides recommendations for users while another looks after account verification process. Therefore such an architecture helps Spotify carry out upgrades or improvements on every service independently helping maintain responsiveness and reliability to its customers at all times. The modular nature of the design also boosts performance and fosters innovation because it allows quick testing of new features.

**2. Microservices in Architecture**

Answer:

**3. Impact on Business and Scalability**

Answer: This is where microservices became a huge help to Spotify as they allow it to scale and manage the growth of more users. They enable the app to handle numerous transactions and user activities very smoothly and are really important when needed in busy periods; with 246 million subscribers in over 180 markets, it's clear how big such a company has become and how this supports such great success. Overall, microservices play a key role in helping Spotify respond to what its users want and need.

**4. Challenges and Solutions**

Answer:

**Challenges:** Spotify, launched in 2008, has grown to over 200 million monthly active users, aiming to provide quality services and an immersive listening experience. As an early adopter of microservices and Docker, they initially used a homegrown orchestration system called Helios. However, by late 2017, they realized that having a small team working on features was inefficient compared to adopting a more widely supported solution.

**Solution:** Spotify decided to migrate to Kubernetes, attracted by its rich features and the vibrant community surrounding it. This transition aimed to enhance speed, reduce costs, and align with industry best practices. The migration happened alongside Helios, allowing for a smooth transition.

(A Kubernetes is a container orchestration platform that helps manage and deploy microservices)

**5. Lesson Learned from the said companies**

Answer: The lesson I learned from Spotify is the importance of making decisions that lead to better service for all users. By implementing microservices, Spotify has improved its application, allowing users to enjoy a seamless experience without issues in the overall system. This approach helps ensure that users can use the app without complications.