S3 Static Website Use Case

Level Up Bank is a ficticious fintech startup that offers digital banking services to customers. The company's website is the primary means of acquiring new customers, providing them with information about the services offered, and serving as a platform for them to interact with the bank. Currently, the website is hosted on an on-premises server, which requires a dedicated IT team to manage and maintain it. This creates additional costs for the company, and also adds a level of complexity to the infrastructure.

To address these challenges, Level Up Bank has decided to move its website to AWS S3. Here's how it can benefit from this decision:

1. **Cost savings**: Hosting a static website on AWS S3 is more cost-effective compared to using an EC2 or on-premises server. This is because AWS S3 charges only for the amount of storage used, and the cost of data transfer is also minimal. On the other hand, an EC2 instance requires additional expenses for compute power, storage, and data transfer.

2. **Improved scalability**: AWS S3 provides automatic scalability without requiring any additional effort from the company. If the website receives more traffic, AWS S3 can easily handle the increased load without any downtime.

3. **High availability**: AWS S3 offers high availability and durability, ensuring that the website is accessible to users at all times. This is achieved through the use of multiple availability zones and redundancy.

4. **Reduced management overhead**: Since AWS S3 is a fully managed service, Level Up Bank can reduce the burden of managing and maintaining the website. This frees up the company's IT team to focus on more critical tasks, such as developing new banking features and improving customer experience.

Advanced & Complex Portion:

Level Up Bank has a growing number of customers who are accessing their website from different geographic locations around the world. As a result, the website's performance is

starting to suffer due to latency issues. In addition, Level Up Bank is concerned about website security and wants to protect their website from cyber attacks. Lastly, Level Up Bank is looking to reduce their website hosting costs while improving their website's performance and security.

To address these challenges, I would recommend Level Up Bank to add AWS CloudFront to their S3 Hosted Static website. AWS CloudFront is a content delivery network (CDN) service that delivers static and dynamic web content, such as HTML, CSS, JavaScript, images, and videos, to users around the world with low latency and high data transfer speeds.

By adding AWS CloudFront to their S3 Hosted Static website, Level Up Bank can take advantage of the following benefits:

1. **Improved website performance**: AWS CloudFront caches website content at edge locations, which are located closer to the user, reducing latency and improving website performance.

2. **Enhanced website security**: AWS CloudFront integrates with AWS Web Application Firewall (WAF), which protects websites from common web exploits such as SQL injection, cross-site scripting (XSS), and cross-site forgery requests (CSRF).

3. **Reduced website hosting costs**: AWS CloudFront charges based on the amount of data transferred and the number of requests made to the website, which can reduce Level Up Bank's website hosting costs compared to hosting the website on EC2 instances or on-premises servers.