**Capstone Final Statement of Work**

For my final Capstone project, I decided to build and host a simple sign-up/sign-in web application utilizing several AWS services. To host the frontend of the sign-up web application, I will use Amazon S3. To distribute the frontend of the sign-up web app to users around the world, I will use Amazon CloudFront. To expose a RESTful API that can be called from the frontend to submit the sign-up data, I will use Amazon API Gateway. To store the sign-up data, I will use DynamoDB. To process the sign-up data and store it in DynamoDB, I will use AWS Lambda.

A high-level overview of the architecture is as follows: The frontend of the sign-up web app sends a POST request to the API Gateway endpoint with the sign-up data. The API Gateway invokes the Lambda function, which processes the sign-up data and stores it in DynamoDB. The frontend of the sign-up web app is hosted in an Amazon S3 bucket and distributed using Amazon CloudFront for fast and reliable access.

To set up this architecture, I will need to create and configure each of the resources listed above, as well as set up the appropriate IAM policies and roles to allow the different AWS services to communicate with each other.

**Deliverables:**

* A responsive web page that allows users to sign up by entering their name, address, email, and phone number.
* An API Gateway that exposes a RESTful API for the web page to communicate with.
* A Lambda function that processes the sign-up data and stores it in DynamoDB.
* A DynamoDB table that stores the sign-up data.

**Estimated time to Build and Deploy:**

* The level of effort (in hours), would depend on several factors, such as size of the team, the experience of the team members, etc. Since I am completing this project on my own, I estimate this web application will require between 8-12 hours of total effort.

The estimated monthly cost for these services will depend on several factors, including the amount of data being stored, the number of requests to the API Gateway and Lambda, and the number of users accessing the frontend of the sign-up web app. Below you will find rough estimates of the cost of each service used:

1. Amazon API Gateway: The cost of API Gateway is based on the number of requests and the amount of data transferred. For a simple sign-up web app, the cost could be around $3 to $5 per month.
2. AWS Lambda: The cost of Lambda is based on the number of requests and the amount of memory and computing resources used by your functions. For a simple sign-up web app, the cost could be around $0.20 to $0.50 per million requests.
3. Amazon DynamoDB: The cost of DynamoDB is based on the amount of data stored, the number of read and write requests, and the size of the reserved capacity (if any). For a simple sign-up web app that stores a small amount of data, the cost could be around $10 to $25 per month.
4. Amazon S3: The cost of S3 is based on the amount of data stored and the number of requests made to the S3 bucket. For a simple sign-up web app that stores a small amount of data, the cost could be around $0.03 to $0.05 per GB per month.
5. Amazon CloudFront: The cost of CloudFront is based on the amount of data transferred and the number of requests made to the distribution. For a simple sign-up web app, the cost could be around $0.085 to $0.20 per GB of data transferred.

**Benefit to end user/customer:**

A sign-up web app can provide several benefits to the end user or customer, such as:

* A user-friendly interface for users to sign up for a service or product.
* Secure storage of the user data, reducing the risk of data loss or theft.
* Automated processing and storage of the sign-up data, reducing the risk of data entry errors and improving data accuracy.
* The ability to easily retrieve and analyze sign-up data for marketing and business intelligence purposes.
* A scalable and reliable system architecture that can handle an increasing number of sign-ups over time.
* By implementing a simple sign-up web app, the end user or customer can provide a convenient and secure way for users to sign up for a service or product, while also improving the accuracy and availability of sign-up data for business purposes.