AWS Use Case – Ransford Danso

AWS Serverless Web App Use Case

Business Overview:

This use case implements a simple serverless web application that enables users to request mobile scooters from the Mobile scooter fleet. The application will present users with an HTML based user interface for indicating the location where they would like to pick up a scooter and will interface on the backend with a RESTful web service to submit the request and dispatch a nearby scooter. The application will also provide facilities for users to register with the service and log in before requesting scooters.

Functional Goal:

* User’s will mainly interact with the web application through their smart phones for transportation convivence when they are in large population settings like beaches, amusement parks, touring city’s, etc.
* This will be a local service that will be used through out the US in multiple city’s.

Technical Goals:

* The application will be implemented with AWS auto scaling for monitoring our application to adjust to the capacity needed for our application to run effectively.
* AWS quicksight can be used for our large scale of users since our fleets will be located at multiple locations throughout the country.
* Our Storage system will be mainly 70/30 read to write ratio.
* Files and Data that would be stored in our system would PCI components since we would be collecting a lot of customer data and also volumes of users we get per day.

Additional Architectural Design :

* AWS PrivateLink will be used on the app for security of our internet traffic
* The application will use Amazon S3 for storage of data
* Amazon cognito user pool for authentication
* Amazon API Gateway we be in use use for traffic management, authorization and access control, monitoring of data.
* Amazon AWS Lambda would be used for scaling performance and security of our application.
* Amazon DynamoDB for high performance of our databases since we would use different scooter fleets for different locations.

Deployment Process:

* The web application will use AWS SDK for Java Script for deployment of the application

After deployment of the application we would use AWS Cloudformation for configuration of the web application, after the mobile application is developed the website should look something like this:

* register.html under your website domain, register yourself.
* Verify the registered user email.
* Visit /ride.html under your website domain.
* If you are redirected to the sign in page, sign in with the user you created in the previous module.
* After the map has loaded, click anywhere on the map to set a pickup location.
* Choose Request Scooter. You should see a notification in the right sidebar that a scooter is on its way and then see a scooter icon fly to your pickup location.