# Check the mobile number Before Call:

Check the mobile number before call is an 3 tier application that hosted in AWS. The application designed for the people who collect the customer data for marketing their product to customer either through SMS or call. The source for this application is from mobile operators. The collected data are maintained in database layer, while mobile validation is happening at application layer for the request that submitted through presentation layer.

In presentation layer, the front-end page designed using HTML for GUI & JavaScript for verifying whether the given value is numeric and length of the given digits is equal to mobile number digits.

In the application layer, python is used to validate the mobile number against mobile numbers that are available in the database.

In the database layer, dynamo DB is used to store all the mobile numbers that are opened to subscribers and currently active in use.

**Enter the Mobile Number:**

Submit

Validation

Data Base

In AWS, there are “n” number of services available to run our application in hassle-free manner. However, I am going to use certain services that are specifically useful to get my application up and running in AWS with cost effective manner.

##### Amazon S3:



Amazon S3 is cloud storage solution with bucketing concept, which can be leveraged to expose to public with read access or can be used as private that will be accessible only to services in the AWS that has access to that bucket based on IAM role.

##### Amazon API Gateway:

Amazon API gateway is a fully managed service for publish, maintain, monitor and secure APIs. The API comes in HTTP, REST and web-socket format. So, in our application, we will use REST API to have bi-direction communication between presentation layer to application layer. The API has the in-build to trigger the code that is deployed in AWS Lambda.



##### Amazon Lambda:

Amazon Lambda is provide the server-less architecture, where the product are not required to maintain and house-keep the server for their code, as it will be completely managed by Amazon, while we are given space to execute our application code whenever the trigger happened through API gateway. Amazon Lambda features the high-availability, high performance, auto-scaling, and pay for usage. So, in our application, we will deploy our python code as Lambda function under custom execution role that will have access to dynamo DB.



##### Amazon Dynamo DB:



Amazon dynamo DB is a NoSQL database that runs in scale with fully managed and built-in-security model.

# **Application Architecture:**

As described in the above diagram, the html, css, & Java script files are hosted in amazon S3 bucket. So, when the customer access the page, it will get the pages from the S3. Now, when the customer enter the mobile number, after basic validation at presentation layer, the request will be sent to AWS lambda function application layer through API gateway using REST. The request will be validated by python function against the amazon dynamo DB data.

Once the mobile number validated and it is confirmed to be available in the database, then there will response send back to customer with message that "Validated! go ahead and call this valid number"

**Enter the Mobile Number:**

Submit

