**Prior Information**

In order to carry out the tasks, you should have a minimal node.js setup ready in your local environment.   
No AWS or any external account/setup is necessary.  
  
In the task, you will be asked to write/run node.js scripts locally using Javascript or Typescript.

**Task - Testing language/library usage & research with little AWS knowledge**

Write a node.js script (that will run on AWS Lambda):

* Reading an x509 Certificate(that is in PEM format) from S3(doesn't matter where in S3)
* Extracts public key from the certificate
* Extracts the CommonName from the certificate subject
* Generates a private key using RSA algorithm
* Signs the Public Key you have extracted with the private key you have generated
* Writes the encrypted content to DynamoDB with Hash Key equals CommonName
* Write tests to cover the functionality

Bonus (if you finish earlier than expected):

* Write [README](http://README.md) explaining how to run this locally
* Write CloudFormation template for creating S3 and DynamoDB needed for this script.
* Write IAM Policy template with min requirements for accessing s3 and DynamoDB.
* Extra Bonus: use ECC algorithm instead of RSA

Remarks:

* Make sure node.js script is tailored for lambda with valid handler function for triggering
* You can use any library in node.js for certificates and for AWS clients
* Script, templates, policies won't need to be deployable or executable right away. Just the content is important. They don't need to be working really on AWS or be perfect
* Both Javascript and Typescript are accepted
* Commit index.js/ts and other files into a public GitHub repo.
* Feel free to improvise or make assumptions if you feel stuck.

Reviewing/Expectation:

* The goal of the task is not to come up with something perfectly working or production-ready.
* The important points are
  + If you could find the required libraries and read their documentation to find out the required functions to solve your problem
  + If you can search and understand the basic concepts of what is unknown to you