Admin username/password - janani/Southampton100\$

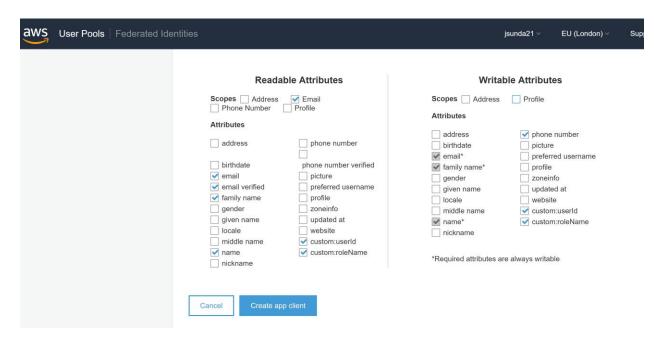
- Hosted a static website http://janani-southampton.s3-website.eu-west-2.amazonaws.com
- Configured cloudfront for s3 bucket d3w1fqi7l2w3j7.cloudfront.net

UserManagement – AWS Cognito

- 1. Created UserPool projectManagement.
- 2. Each user has the following attributes.

name family_name userId roleName

3. Generated app client



- 4. Created federated Identities for 'projectManagement' userpool
 - Get AWS Credentials

```
// Initialize the Amazon Cognito credentials provider
CognitoCachingCredentialsProvider credentialsProvider = new CognitoCachingCredentialsProvider(
  getApplicationContext(),
   "eu-west-2:d2a529ae-3444-4394-be7c-cacc0796844d", // Identity pool ID
   Regions.EU_WEST_2 // Region
);
```

- ▼ Then initialize the credentials provider:
 - Getting Started with Cognito Identity

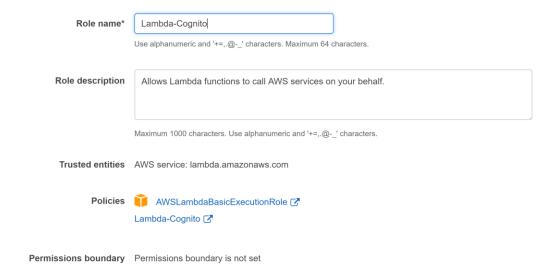
Go To Dashboard

```
We have the following cognito values
```

```
'cognito': {
    'REGION': ' eu-west-2',
    'USER_POOL_ID': 'eu-west-2_t3Um8HkrK',
    'APP_CLIENT_ID': '5qerodl71ajnqutadg7ap07to0',
    'IDENTITY_POOL_ID': 'eu-west-2:d2a529ae-3444-4394-be7c-cacc0796844d'
5. Created Policy –' Lambda Cognito' – to access AWS Cognito for User Management
     "Version": "2012-10-17",
      "Statement": [
          "Sid": "VisualEditor0",
          "Effect": "Allow",
          "Action": "cognito-idp:ListUsers",
         "Resource": "arn:aws:cognito-idp:eu-west-2:*:userpool/eu-west-2:d2a529ae-3444-4394-
   be7c-cacc0796844d"
       }
     ]
   }
```

6. Created Role 'Lambda-Cognito'

Provide the required information below and review this role before you create it.



ProjectManagement - DynamoDB

1. Created two DynamoDB tables customerRoles, projectManagement customerRoles -

Amazon Resource arn:aws:dynamodb:eu-west-

Name (ARN) 2:551021002244:table/customerRoles

projectManagement

Amazon Resource Name (ARN) – arn:aws:dynamodb:eu-west-2:551021002244:table/projectManagement

2. Created policy lambda-dynamodb to perform CRUD operations on both datatables

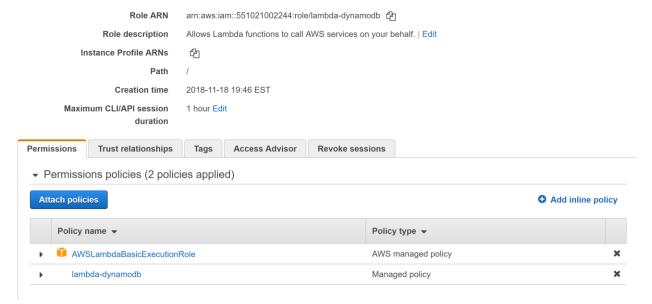
```
"Version": "2012-10-17",

"Statement": [

{
    "Sid": "VisualEditor0",
    "Effect": "Allow",
    "Action": [
        "dynamodb:BatchGetItem",
        "dynamodb:PutItem",
        "dynamodb:DescribeTable",
        "dynamodb:DeleteItem",
        "dynamodb:GetItem",
        "dynamodb:GetItem",
        "dynamodb:Scan",
```

```
"dynamodb:Query",
    "dynamodb:UpdateItem"
],
    "Resource": [
        "arn:aws:dynamodb:eu-west-2:551021002244:table/projectManagement",
        "arn:aws:dynamodb:eu-west-2:551021002244:table/customerRoles"
        ]
     }
     ]
}
```

3. Created role lambda-dynamodb.



AWS Lambda

getUsers

- Created Lambda function 'getUsers' and add role 'Lambda-Cognito'
- This function is used to get the list of users

getRole

- Created Lambda function 'getRole' and add role 'lambda-dynamodb'
- This function is used to get the role of a particular user

assignRole

- Created Lambda function 'assignRole' and add role 'lambda-dynamodb'
- This function is used to assign a role to a particular user

getProject

- Created Lambda function 'getProject' and add role 'lambda-dynamodb'
- This function is used to get projects created by/assigned to a particular user

assignProject

- Created Lambda function 'assignProject' and add role 'lambda-dynamodb'
- This function is used to create/update projects

API Gateway

/users

- Integrated with 'getUsers' lambda function

/project

- Integrated with 'assignProject' lambda function

/project/{userId}

- Integrated with 'getProject' lambda function

/roles

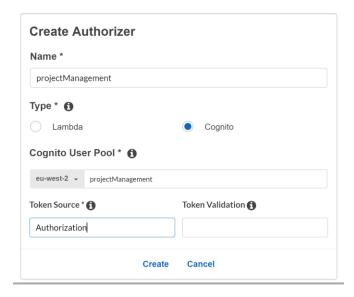
- Integrated with 'assignRole' lambda function

/roles/{userId}

Integrated with 'getRole' lambda function

_

Added Authorizer to secure the API



Enable CORS and deploy APIs

Invoke URL: https://1ndav6mxce.execute-api.eu-west-2.amazonaws.com/prod

S3 bucket

Created janani-southampton s3 bucket with policy:

- Uploaded production build of the project into S3 janani-southampton
- Created a static website
- Hosted a static website http://janani-southampton.s3-website.eu-west-2.amazonaws.com
- Configured cloudfront for s3 bucket d3w1fqi7l2w3j7.cloudfront.net

References:

- [1] https://github.com/youssefsharief/aws-cognito-angular-serverless-app-sample
- [2] Build a Serverless App with AWS Lambda Hands On! https://www.oreilly.com/library/view/build-a-serverless/9781789348149/
- [3] Angular UI Development with PrimeNG https://www.oreilly.com/library/view/angular-ui-development/9781788299572/