**Architecture Description**

Lambda Functions:

The used Lambda functions are mainly used to interact with the DynamoDb and the S3 Buckets. Each Lambda Functions uses the Same Role “WildRydesLambda” (We never changed the name) with the Full Access to DynamoDb and S3

Each Lambda Function can be invoked with the corresponding Lamda Libs. For Javascript it is the AWS.Lambda Lib. Each Invokation needs params (Javascript)

*var params = {*

*FunctionName: "authUser",*

*InvocationType: "RequestResponse",*

*LogType: "Tail",*

*Payload: '{ "param1Name" : "' + param1 +'", "param2Name" : "' + param2 + '"}'*

*};*

Method: authUser

Params: username, password

Response: on Success: 200

Response on Failure: 500, 403 (Wrong Credentials), 400 (username or password not set

Response Body: None

Description: Takes the username and querys DynamoDb. Checks if the password in the Db is the same as the parameter password if user is found. Returns 200 if it succeeded.

Method: addFile

Params: username, file(file.txt), wordCount (optional = 0), content(file content)

Response on Success: 200

Response on Failure: 500 (Error while query), 400 (Params not set)

Response Body: Error Code or All Clear

Description: Takes the filename and filecontent from a user. If the file doesn’t exist from the user it saves a new map entry for the user and sets the wordcount to it. Furthermore the content is saved into a s3 bucket with the name user-text-files. Filename in Buckets is always username\_filename. If the file exists it gets overwritten.

Method: getFiles

Params: username

Response on Success: 200

Response on Failure: 500 (Error while query), 400 (Params not set)

Response Body: DynamoDb Data Items as a nested JSON Object with the calculated file features. They key of each object is the name of the file

Description: Querys the DynamoDb for all Userfile

Method: getFileByFileName

Params: username, filename

Response: on Success: 200

Response on Failure: 500 (Query Failure), 400 (Wrong parameters)

Response Body: Json with Data Buffer of the files content

Description: Returns a Data Buffer from requested File.