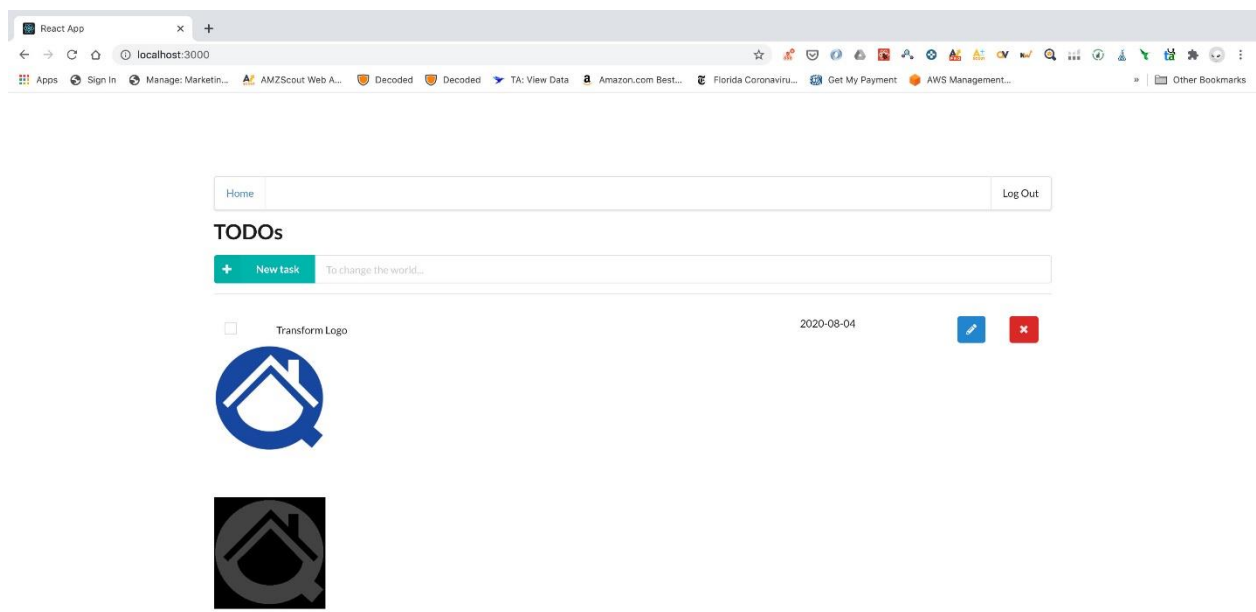# Capstone Project

To implement this project, I used the simple TODO application built using AWS Lambda and Serverless framework and put it together with the function to transform an image every time the user uploads one

Functionality of the application

This application will allow creating/removing/updating/fetching TODO items. Each user only has access to TODO items that he/she has created.

Each TODO item can optionally have an attachment image and every time a user uploads an image, a notification service was implemented using AWS Simple Notification Service (SNS) that will trigger a function to transform the image in a black and white thumbnail square image and place it underneath the original picture.

Functions to be implemented

To implement the transformImage function, I created a Notification Service that is comprised of a Topic and Subscribers to the topic. The Upload Notification Topic (UploadNotificationTopic) has a S3 Bucket as publisher and a Lambda Function (TransformImage) that will be triggered to transform the image.

Screenshot in AWS

Logging

Besides the loggers inside the code, I implemented additional tracing with AWS X-Ray for the **transformImage** function as shown in the bottom part of the graphic.