Introduction to Cloud Computing

Course Project, Spring 2018

General Instructions:

- The project is to be done in Heroku PAAS (Platform as a Service).
- You are allowed to use a template for front end for this project.
- Keep the design as simple yet as professional as you can.

Your main focus should be on how to use Heroku as a PAAS and integrate plugins so that you can develop your own application with much less time required as compared to conventional methods. You should use Amazon web services to implement the functionalities of the application with least focus on the front end (but keep in mind it does not mean that you show up poorly). Moreover, it will allow you to walkthrough this new technology in a much detailed way.

Objective:

- To be able to create, deploy and run a web application in a PAAS.
- To be able to use Database, Picture and Video upload in a public cloud.

About the deliverables

- The project consists of two deliverables
- Requirements for the first deliverable will not be marked in the second one.
- Submission date is the actual due date.
- No marks for the front end.

NO	Submission Date	Tasks
1	11 March 2018 11:59 pm	**Deployment of the project** **User requirements number** 1, 3 and 4 **Admin requirements number** 1,3 and 4
2	29 April 2018 11:59 pm	**User requirements number** 2, 5 and 6 **Admin requirements number** 2, 5, 6 and 7

Warning: Don't submit/commit anything after the due date until assessment is done, because logs are maintained in the cloud.

TASKS

1. **Deployment in the cloud**

User requirements

A user is the person who will book a room in the hotel.

1. **Registration**
   User should be able to register on the website.

2. **Profile**
   User should be able to add/update their profile and update their picture.

3. **Login/logout**
   User should be able to login/logout to/from the website(Login using public cloud services will be a bonus).

4. **Book a room**
   User should be able to select and book a room.

5. **Add reviews**
   User should be able to add reviews and comments about the hotel.

6. **Rate the Hotel**
   User should be able to rate

Admin User Specific Actions

A. Room

1. Admin should be able to add/delete room.
2. Admin should be able to configure the room features.
3. Admin should be able to set/update room price.
4. Admin should be able to add/update/delete room pictures.
5. Admin should be able to add/update availability of rooms.

B. User

6. Admin should be able to delete registered user.
7. Admin should be able to delete comments.

NOTE:

- Use DynamoDB as a service for this project.
- You can use S3 bucket for picture uploading and video functionality and other services like AWS LAMBDA(use to compute service that runs your code in response to events and automatically manages the compute resource for you).
- Integration of other services and API will be awarded as a bonus. (This include using Apps/Services available directly from Heroku Marketplace, or using Google/Facebook API for login and signup of user).

How to get started

- Sign up for an account on Heroku.
- Sign up for an AWS Educate accont.
- Choose your programming language from those supported by Heroku
- Follow the step by step guide on Heroku, after choosing the language and download all necessary software.

2. Download the sample project written in your chosen language by following that guide.
3. Look at the source code and analyze what's happening.
4. Complete all the steps in that guide.
5. Edit the sample project to your project domain (Hotel Management)

- While setting up the project on Heorku, Go to Qwicklabs.com and follow the guide to Amazon Dynamo DB and Amazon S3 storage.

Useful tips

- Check logs for debugging purposes
- Don’t forget to periodically check in your code changes to the cloud