Portfolio Part 2: Cloud Implementation

Monday, 2 October 2023 3:16 pm

Portfolio Part 2: Cloud Implementation (*Weighting 40% overall*)

Provide evidence of a basic Cloud Services implementation, to meet the requirements of a scenario.

The labs you have conducted in AWS ACF provide the experience and skills you will need, to plan and implement a suitable solution:

Scenario

https://medium.com/@whollydeals/knowing-the-difference-mountain-bicycle-or-bmx-bike-9465c1044fb0

"**Port Hills Thrills**" is a flourishing adventure Tourism business, facilitating a range of exciting outdoor activities provided by a team of six trained guides.

"Port Hills Thrills" are on a tight budget. They require you to provide a cheap cloud-based web server, with a decoupled data tier using a managed database service, thus providing resilience* of their product and customer data.

Because of cost-constraints, the customer understands the website is limited. It will simply allow customers to browse and select from the range of outdoor activities available, and to make calendar bookings only, allocating customers to the trained guides appropriately. You need to avoid any guide or activity getting double booked. (*You can creatively imagine what these activities might be* :-))

Prove that the bookings have been stored in RDS:

- Ideally "Port Hills Thrills" staff should be able to log in and view the bookings made, and the guides should be able to print out their appointments.
- (An acceptable fallback for this assessment, is to simply use mysql commands to login to RDS and demonstrate that the bookings have been stored).

To keep costs low - at this stage customers will pay in-person on the day. The website IS NOT expected to perform any financial transactions.
However the site should collect customer details (name, address, mobile phone numbers and age) for follow-up purposes.

Because of the tight budget, "Port Hills Thrills" only need **one compute instance, and one decoupled database**.
Resilience of compute is **not expected** , therefore there is **no need** for scaling, load balancing or multiple EC2s across AZs.

Support

Collaboration between students to find solutions to challenges is allowed, however ultimately every student must submit your own implementation. (You cannot just be a consultant).

You are welcome to use our existing Moodle Forum or any other method to collaborate through issues.

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expected to implement "multi-az" (multiple avai

Implementation

You can choose how to host this shop website, perhaps using simple HTML code on a web server, or by installing a free App such as WordPress, as a way to display articles that showcase the shops products.
(p.s.: WordPress provides an easy way to connect from its' web-tier compute to a decoupled database service).

Refer to Moodle for some tips on installing Wordpress. Please note - do not use any third-party site that already hosts Wordpress in a cloud service. I want to see you installing it and hosting it yourself in your won AWS VPC.

You will need to explore how to use Wordpress to provide a basic website experience.

- Wordpress install tips - UPDATED LINK 2023,S2
- What is Wordpress Used For?

The **website is concept-only** illustrating 2-3 activities. The other activities can just be a text description. There is no need to spend hours developing a flash website. The real focus, and the bulk of allocated points for this assessment, is secure and functional cloud implementation. **Refer to the marking schedule**.

- The best way to practice and implement this challenge is by utilizing a AWS Academy Learner Lab student account, where your instructor will set up for you. The only other free approach is using the AWS Academy sandpit in our existing course, but as you know in that method you are always needing to reset the four hour session timer.

Outputs

Your outputs will consist of Evidence and Reflection items, both to be submitted in OneNote.

Ideas for reflection:

- Make notes similar to a design document, including topology diagram, where you advise "Port Hills Thrills" how your design meets their needs.
  - If you like, you could consider using this app.diagrams.net site to make a topology diagram.
- Reflect on the solution you implemented. What went well? What difficulties did you encounter? If you did it again, what would you do differently?

Evidence:

Evidence of implementation needs to be provided as pasted screenshots* from the AWS Console environment and from your working website. The screenshots will prove* implementation of the required elements. There needs to be commentary text with the screenshots, to show me how you set up the solution.

* Verification

The provided screenshots and text commentary need to provide enough evidence to convince the teacher that you implemented your own working solution.

On a spot-check basis, or if there was not enough evidence, the teacher will need to verify your implementation.

This can be done by using screen-sharing over a Teams video-conference session with the teacher.

Verification will be by question-and-answer conversation and /or screen-sharing evidence of your implementation.

Please include notes # of how you implemented, in case this verification phase is needed. If the teacher wants you to re-enact some setup, this should be easy to achieve from your notes.

An idea is to create another OneNote page to store your setup notes.

Reflection:

In a separate OneNote tab, write some reflection notes about what you have learnt through this implementation.

The reflection notes only need to be **around 600 words long** (approx 1 page) and the content is flexible. You could make use of some of the ideas below, or your own idea, as long as it is relevant to your cloud implementation learning.

Implementation

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- Reflect on the solution you implemented. What went well? What difficulties did you encounter? If you did it again, what would you do differently?
- Reflect on other ways "Port Hills Thrills" could implement a Cloud Solution (such as Lambda server-less compute) - how that might be done, and what are the pros and cons.
- Reflect on how "Port Hills Thrills" could enhance their solution in the future, if the company grows and becomes multi-national.
- ... or your own idea as long as it is relevant to your Cloud implementation learning.

The screenshots with text commentary, and the reflection notes should all be submitted into your **Cloud Implementation** *tab in OneNote*.

The requirements of Portfolio Part 2 and some implementation tips, will be discussed further in class.

Please refer to the marking schedule.

The Due date for Portfolio Part 2: Cloud Implementation is Friday 24 November 2023

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