Capstone Project

We are aiming for a Group Capstone Project. The project will be a Wordpress website with a MySQL database on AWS. The project will be done using Terraform. They can either use the default project or they can go for the advanced or expert project. It can be deployed with the terraform commands using the github repository or they use https://app.terraform.io/session to connect to the repository and deploy the project. Which means everyone will have at least one project to work. They will work on their own individual project and will be responsible for it. Groups are allowed to help each other but the main responsibility is on the individual.

Project Idea

There are multiple levels of this project:

Level 1. Default Project

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- Creating an EC2 Machine as Webserver with Wordpress on it (using script in the
user data)
- Creating all necessary resources for it (VPC, SG, Subnets, IGW, Route Tables,
etc.)
-  2 AZ with 2 Subnets (Public and Private)
- Local mysql database on the ec2 machine
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Level 2. Advanced Project

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- Adding RDS to the project
- Script needs to be adjusted since the database will be on RDS
- Multi-AZ RDS in private subnet
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Level 3. Expert Project

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- Adding Bastion Host
- Shifting Wordpress Servers to private subnet
- Adding NAT Gateway
- Adding Autoscaling Group
- Adding Application Load Balancer
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Steps for the Coaches

First we introduce Terraform. How to install Terraform and how to use it. Then we will slowly talk about the first level and provide some default code for it. They have to adjust the code and deploy it. The idea is to let them understand the code and how it works. Therefore it's lot of self study and self learning. They have to

read the documentation and understand the code. We will provide some hints and some help but the main responsibility is on the individual.

This will be done with every level.