Introduction to Amazon CloudFormation

**Lab Details:**

1. This lab walks you through to AWS CloudFormation. AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. In this lab we will demonstrate aws cloudFormation by creating a sample LAMP Stack.
2. Duration: 00:30:00 Hrs
3. AWS Region: US East (N. Virginia)

**Tasks:**

1. Login to AWS Management Console.
2. Create a WordPress CloudFormation Stack.
3. Test the Environment created by CloudFormation Stack.

**Steps:**

1. Launch your lab environment by clicking on **Start Lab** button.
2. Once your lab environment is created successfully your **Console Login** button will be active, Now click on **Console Login** button, this will open your **AWS Console** Account for this lab in a new tab.
3. Navigate to S3 by clicking on the “services” menu in the top,then click on S3 (in the “Management Tools” section).
   1. You can see the bucket name with some numeric digits like -1234564543
   2. Open that bucket and click on object name LAMP\_template.json .
   3. Now copy the **Object URL** to the clipboard for use in cloudFormation template.
4. Navigate to CloudFormation by clicking on the “services” menu in the top,then click on “CloudFormation” (in the “Management Tools” section).
5. **Create Stack** : On the CloudFormation dashboard click on **Create new stack** button.
6. **Select Template** :
   1. **Choose a template :** choose the option **Specify an Amazon S3 template URL** and Paste the s3 URL which copied in the step 3.
   2. Click on Next.
7. **Specify Details**
   1. **Stack name :**Enter stack name.
8. **Parameters** 
   * 1. **DBName :**Enter database name.
     2. **DBPassword :**Enter database password.
     3. **DBRootPassword :**Enter database root password.
     4. **DBUser :**Enter database username.
     5. **InstanceType :**Select t2.micro
     6. **KeyName :**Select the key from the list name **whizlabs-key**
     7. **SSH Location :**Enter 0.0.0.0/0
     8. Click on Next.
9. **Options** :
   1. **Tags** : Enter a tag name with key value combination for stack identification.
   2. **Permissions** : No need to select for this lab leave it blank.
   3. **Rollback Triggers** : No need to change anything leave it blank.
   4. **Advanced** : No need to change for this lab leave it default values.
   5. Click on Next.
10. **Review** : Review your stack details and click on **Create**
11. Once you clicked on create button you will redirect to CloudFormation stack list.
12. **Stacks** Here select your stack from the list and you can see its status **CREATE\_IN\_PROGRESS**
13. You need to wait till 5-10 min for complete the stack resource creation.
14. Once your stack status changed to **CREATE\_COMPLETE** Navigate to output section and click on the URL. This will take you to your server's home page.
15. If you see the php info and your database connection messaage means, You have completed a LAMP server setup with AWS CloudFormation.
16. You have successfully completed the lab.