Project 2

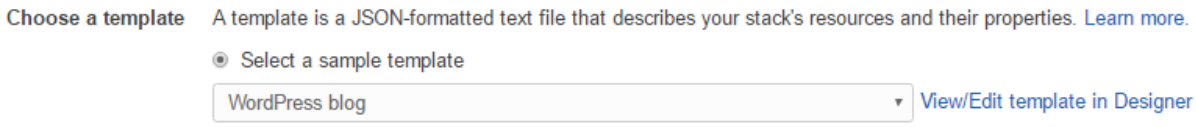
Following are the steps for implementing this project:

Action Points:

1. **Use CloudFormation to create an EC2 instance, to run WordPress with the following specification:**
    - Instance Type: T2.micro.

To create the WordPress instance, you need to complete the following steps:

1. From the EC2 dashboard, select “CloudFormation”.
2. Select “Create New Stack”.
3. From the “Choose a template” section, highlight “Select a sample template” and from the dropdown choose “WordPress blog” and click “Next”



4. Enter a name in the “Stack Name” box and complete the rest of the options. Be sure to change the “Instance Type” to “T2.micro” and in the “KeyName” section, select a key which you have possession of. Then click “Next”.

5. Give your instance a meaningful tag name, for example, “Key = Name” and “Value = PROJECT2_WP1”. Then click “Next”.
6. Review the settings and then click “Create”.
7. Wait until the Stack has a “Status” of “CREATE_COMPLETED”

Stack Name	Created Time	Status
PROJECT2	2016-06-05 15:18:52 UTC-0400	CREATE_COMPLETE

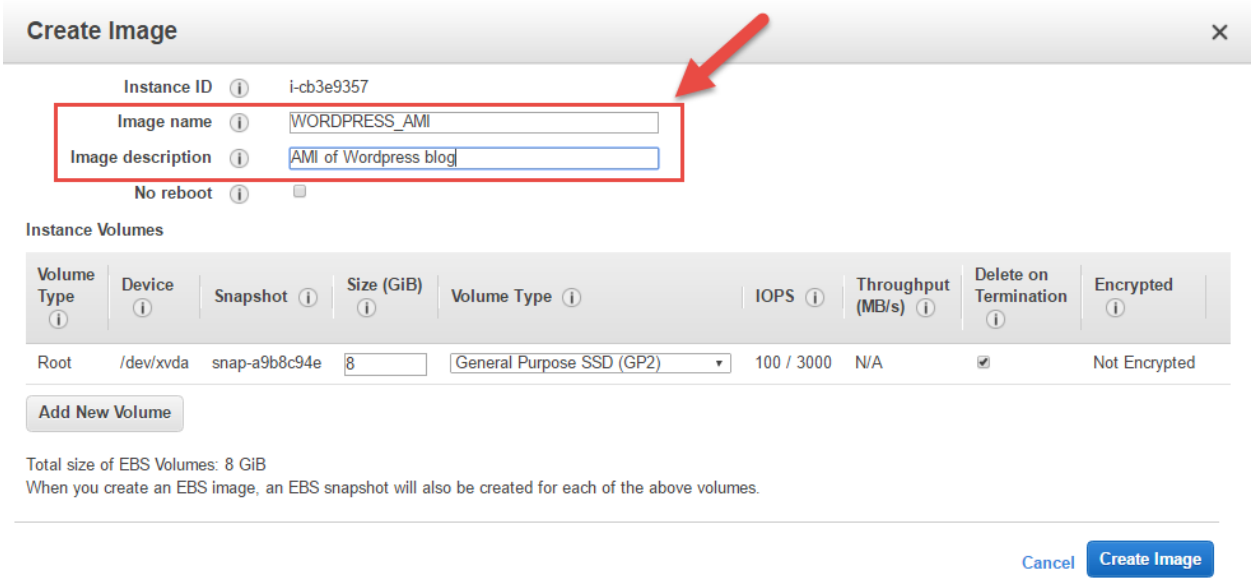
2. Create a new AMI of the WordPress instance

To create an AMI of the new instance, you need to complete the following steps:

1. Switch to the EC2 dashboard and verify that your new instance is available for use.

Name	Instance ID	Instance Type	Availability Zone	Instance State
PROJECT2_WP1	i-cb3e9357	t2.micro	us-east-1b	running

2. Highlight the new instance and click Actions > Image > Create Image.
3. Enter an “Image Name” and “Image description” and then click “Create Image”



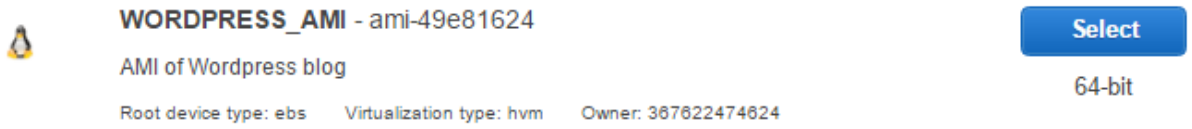
4. Switch to the AMI dashboard and wait until your new AMI has a “Status” of “available”

AMI Name	AMI ID	Source	Owner	Visibility	Status
WORDPRESS_AMI	ami-49e81624	367622474624/W...	367622474624	Private	available

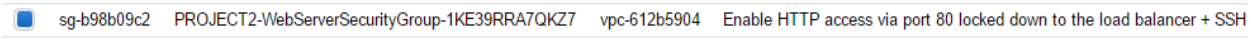
3. Configure Auto Scaling to launch a new WordPress instance during 9AM-6PM

To configure Auto Scaling, you need to complete the following steps:

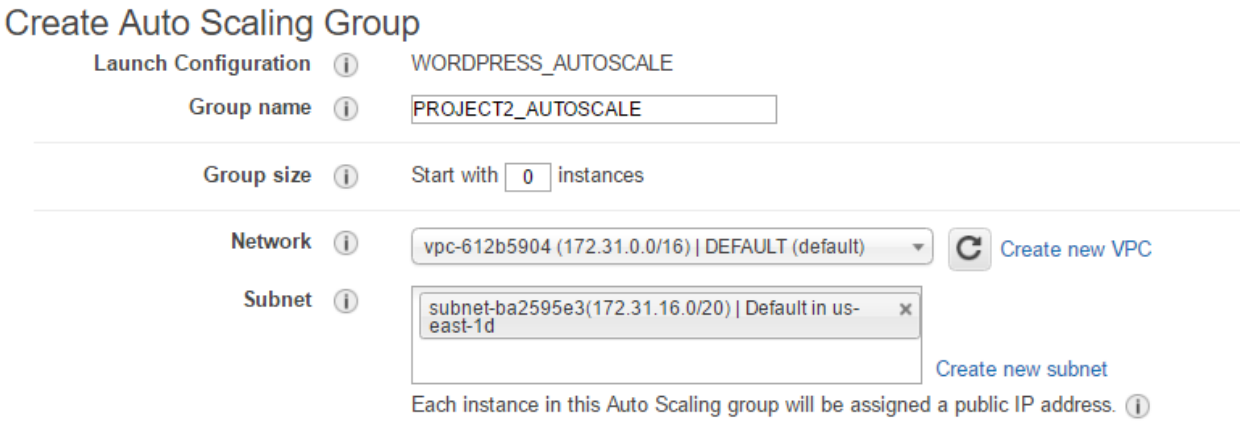
1. Switch to the “Auto Scaling Groups” dashboard, and click “Create Auto Scaling Group”.
2. Click “Create launch configuration”.
3. On the “Choose AMI” page, click “My AMIs” and select your newly created AMI.



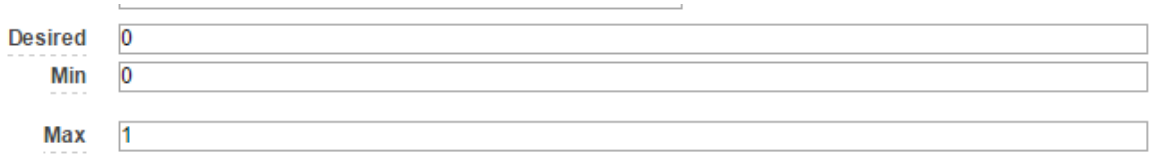
4. On the “Choose Instance Type” page, select “T2.micro” and click “Next: Configure Details”.
5. Enter a suitable “Name” for the Launch Configuration, and click “Next: Add Storage”.
6. Click “Next: Configure Security Group”.
7. Choose a suitable Security Group or select the Security Group that was created as part of your CloudFormation step. Then click “Review”.



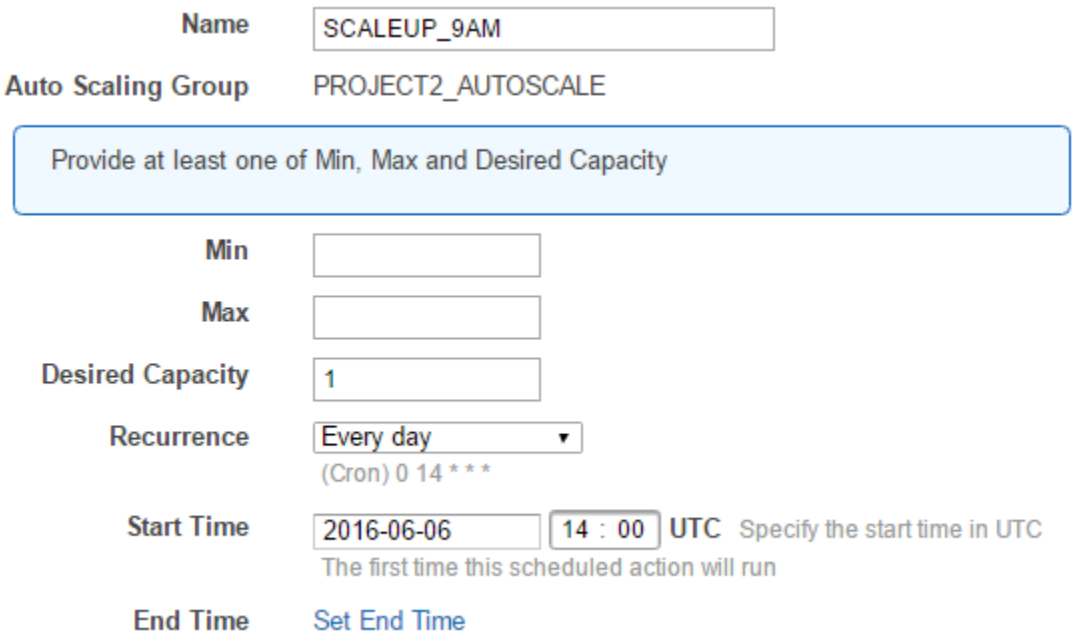
8. Review the settings and then click “Create launch configuration”.
9. Choose a key that you have in your possession and then click “Create launch configuration”.
10. You can now use the new Launch Configuration to create a new WordPress instance during the hours of 9AM-6PM. To do this, click “Create Auto Scaling group”.
11. Enter a “Group Name” and a “Group Size” of 0. Also select a subnet or subnets you want the new instance to be created in.



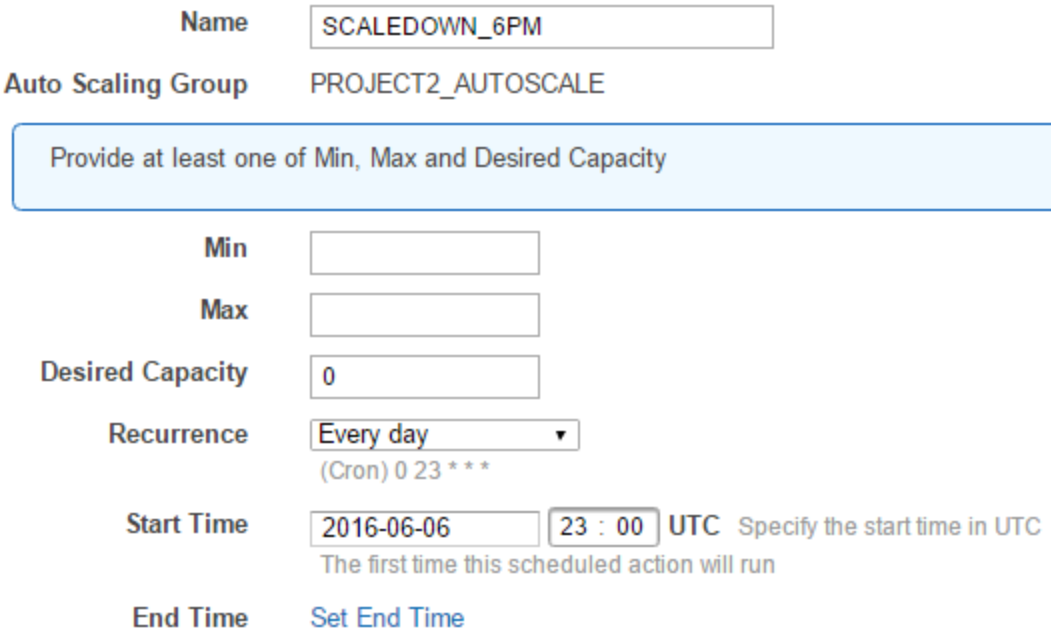
12. Select “Keep this group at its initial size” and click “Next: Configure Notifications”.
13. Click “Next: Configure Tags”.
14. Enter meaningful tags, for example “Key = Name” and “Value = PROJECT2_WP_AUTOSCALE”. Then click “Review”.
15. Review the settings and then click “Create Auto Scaling group”.
16. Click “View your Auto Scaling groups” and highlight the new group.
17. Click Actions > Edit and set the “Desired” value to “0”, “Min” to “0” and Max to “1”



18. Click the “Scheduled Actions” tab and click “Create Scheduled Action” to create the scheduled actions.
19. Enter a “Name”, for example “SCALEUP_9AM”, the “Desired Capacity” of “1” and set the time of day you first want the job to run. The time is UTC format so you need to set it to the UTC equivalent of 9AM for your time zone. Once complete, click “Create”.



20. Enter a “Name”, for example, “SCALEDOWN_6PM”, the “Desired Capacity” of “0” and set the time of day you first want the job to run. The time is UTC format, so you need to set it to the UTC equivalent of 6PM for your time zone. Once complete, click “Create”.



21. Verify that the actions have been created successfully.

Name	Start Time	End Time	Recurrence	Desired Capacity
SCALEUP_9AM	2016 June 6 10:00:00 UTC-4		0 14 * * *	1
SCALEDOWN_6PM	2016 June 6 19:00:00 UTC-4		0 23 * * *	0

22. If you want to test further, try creating Scheduled Actions to run immediately to see if they work.

When you have finished, be sure to shut down and terminate any instances, Auto Scaling groups, Auto Scaling Launch configurations, CloudFormation Stacks, AMIs, and snapshots used during this project.