

Set up WordPress Instance for Your Organization

This section will guide you to:

- Create a CloudFormation new stack
- Create an AMI of the WordPress instance
- Configure Auto Scaling to launch a new WordPress instance
- Configure the new WordPress instance to shut down automatically

Step 1: Create a CloudFormation new stack

- From the EC2 dashboard, select **CloudFormation**
- Select **Create New Stack**
- From the **Choose a template** section, choose **Select a sample template**
- From the drop-down, choose **WordPress blog**, and then click on the **Next** button

Select a sample templateView more sample templates

Sample templates

This collection of sample templates will help you get started with AWS CloudFormation and quickly build your own templates

WordPress blog

S3 URL: https://s3-external-1.amazonaws.com/cloudformation-templates-us-east-1/WordPress_Multi_AZ.template

View in Designer

- Enter a name in the **Stack Name** field
- Change the **Instance Type** to **T2.micro**
- In the **KeyName** section, select a key, and then click on the **Next** button

Stack name
ProjectSAA03

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters
Parameters are defined in your template and allow you to input custom values when you create or update a stack.

DBAllocatedStorage
The size of the database (Gb)
5

DBClass
Database instance class
db.t2.micro

DBName
The WordPress database name
wordpressdb

DBPassword
The WordPress database admin account password

DBUser
The WordPress database admin account username

InstanceType
WebServer EC2 instance type
t2.micro

KeyName
Name of an existing EC2 KeyPair to enable SSH access to the instances
Project03

MultiAZDatabase
Create a Multi-AZ MySQL Amazon RDS database instance
false

SSHLocation
The IP address range that can be used to SSH to the EC2 instances
0.0.0.0/0

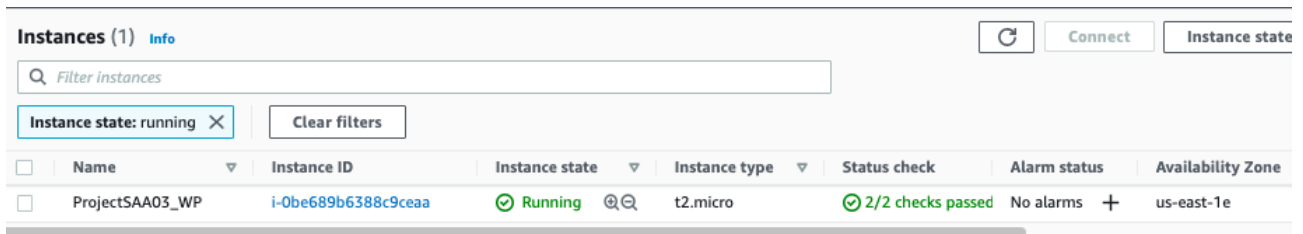
- Give your instance a meaningful tag name, and then click on the **Next** button
- Review the settings, and then click on the **Create** button
- Wait until the status of the stack changes from **Pending** to **CREATE_COMPLETE**

CloudFormation > Stacks

Stacks (1)					Refresh	Delete	Update	Stack actions ▼	Create stack ▼
Filter by stack name					Active ▼	View nested			
	Stack name	Status	Created time ▼	Description					
<input type="radio"/>	ProjectSAA03	CREATE_COMPLETE	2021-07-20 04:02:52 UTC+0530	AWS CloudFormation Sample Template WordPress_Multi_AZ: WordPress is web software you can use to create a beautiful website or blog. This template installs a highly-available, scalable WordPress deployment using a multi-az Amazon RDS database instance for storage. It demonstrates using the AWS CloudFormation bootstrap scripts to deploy WordPress. **WARNING** This template creates an Amazon EC2 instance, an Application Load Balancer and an Amazon RDS database instance. You will be billed for the AWS resources used if you create a stack from this template.					

Step 2: Create an AMI of the WordPress instance

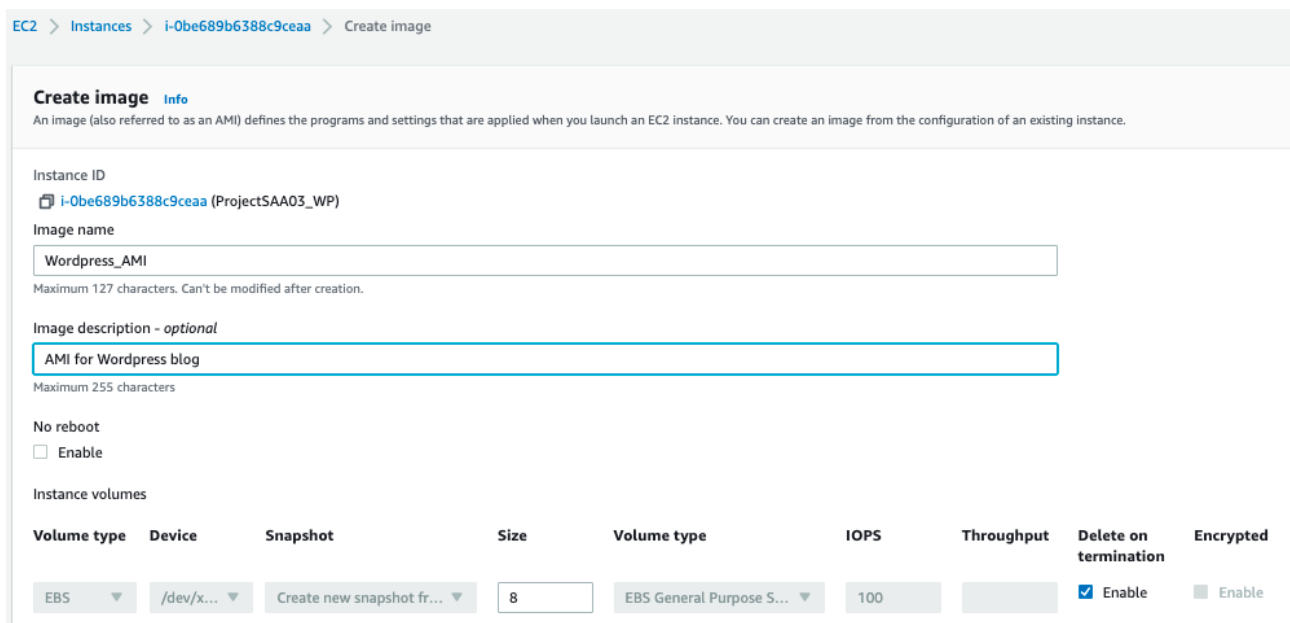
- Switch to the **EC2 dashboard** and verify that your new instance is available for use



The screenshot shows the AWS Management Console 'Instances' page. At the top, there's a search bar and filters. The 'Instance state' filter is set to 'running'. Below the filters, a table lists the instances. One instance is shown: 'ProjectSAA03_WP' with ID 'i-0be689b6388c9ceaa', state 'Running', type 't2.micro', and '2/2 checks passed'.

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	ProjectSAA03_WP	i-0be689b6388c9ceaa	Running	t2.micro	2/2 checks passed	No alarms	us-east-1e

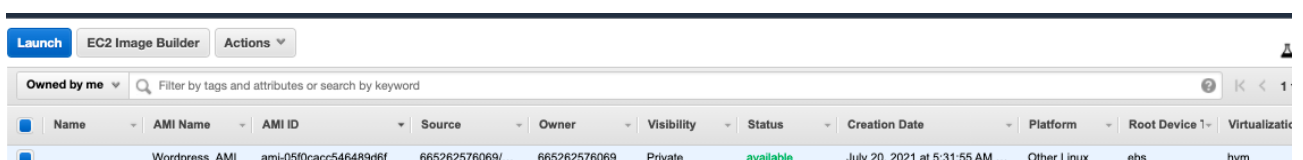
- Select the new instance and click on the **Actions** button
- Select the **Image** option
- Click on the **Create Image** button
- Enter an **Image Name** and **Image description**, and then click on the **Create Image** button



The screenshot shows the 'Create image' wizard. The 'Instance ID' is 'i-0be689b6388c9ceaa' (ProjectSAA03_WP). The 'Image name' is 'Wordpress_AMI'. The 'Image description' is 'AMI for Wordpress blog'. The 'No reboot' checkbox is checked. The 'Instance volumes' section shows a table with columns: Volume type, Device, Snapshot, Size, Volume type, IOPS, Throughput, Delete on termination, and Encrypted.

Volume type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/x...	Create new snapshot fr...	8	EBS General Purpose S...	100		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

- Switch to the **AMI dashboard** and wait until the status of your new AMI changes from **pending** to **available**



The screenshot shows the AWS Management Console 'AMI dashboard'. The table lists the AMIs. One AMI is shown: 'Wordpress_AMI' with ID 'ami-05f0cacc546489d6f', source '665262576069/...', owner '665262576069', visibility 'Private', status 'available', creation date 'July 20, 2021 at 5:31:55 AM ...', platform 'Other Linux', root device 'ebs', and virtualization 'hvm'.

	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date	Platform	Root Device	Virtualization
<input checked="" type="checkbox"/>	Wordpress_AMI		ami-05f0cacc546489d6f	665262576069/...	665262576069	Private	available	July 20, 2021 at 5:31:55 AM ...	Other Linux	ebs	hvm

Step 3: Configure Auto Scaling to launch a new WordPress instance

- Switch to the **Auto Scaling Groups** dashboard, and then click on the **Create Auto Scaling Group** button
- Click on the **Create launch configuration** button
- On the **Choose AMI** page, click on the **My AMIs** button, and then select your newly created AMI
- On the **Choose Instance Type** page, select **T2.micro**, and then click on **Next: Configure Details**
- Enter a suitable **Name** for the launch configuration, and then click on **Next: Add Storage**
- Click on **Next: Configure Security Group**
- Choose a suitable Security Group or select the Security Group that was created as part of your CloudFormation stack
- Click on the **Review** button
- Review the settings, and then click on **Create launch configuration**
- Select your key, and then click on **Create launch configuration**

Successfully created launch configuration: ProjectSAA03-ASG

EC2 > Launch configurations

Launch configurations (1/2) Info

Search launch configurations

Actions Copy to launch template Create launch configuration

	Name	AMI ID	Instance type	Spot price	Creation time
<input type="checkbox"/>	ProjectSAA03-ASG	ami-05f0cacc546...	t2.micro	-	Tue Jul 20 2021 07:53:35 GMT+0530 (India Standard Time)
<input checked="" type="checkbox"/>	ProjectSAA03-LaunchConfig-TDGD80WC4MPP	ami-032930428b...	t2.micro	-	Tue Jul 20 2021 04:17:55 GMT+0530 (India Standard Time)

Launch configuration: ProjectSAA03-LaunchConfig-TDGD80WC4MPP

Details Copy launch configuration

AMI ID ami-032930428bf1abbff	Instance type t2.micro	IAM instance profile -
Kernel ID -	Key name Project03	Monitoring true
EBS optimized false	Security groups sg-0936988fe76952a3d	Spot price -
Create time Tue Jul 20 2021 04:17:55 GMT+0530 (India Standard Time)	RAM disk ID -	IP address type Default
Metadata accessible -	Token hop limit -	Metadata version -
User data View user data		

- You can now use the new launch configuration to create a new WordPress instance during the working hours (9 AM - 6 PM).

Step 4: Configure the new WordPress instance to shut down automatically

- Click on **Create Auto Scaling group**
- Enter a **Group Name** and set the **Group Size** as **zero**
- Select a subnet where you want to create the new instance

Successfully created launch configuration: ProjectSAA03-ASG

EC2 > Launch configurations

Launch configurations (1/2) Info

Search launch configurations

Actions Copy to launch template Create launch configuration

	Name	AMI ID	Instance type	Spot price	Creation time
<input type="checkbox"/>	ProjectSAA03-ASG	ami-05f0cacc546...	t2.micro	-	Tue Jul 20 2021 07:53:35 GMT+0530 (India Standard Time)
<input checked="" type="checkbox"/>	ProjectSAA03-LaunchConfig-TDGB0WC4MPP	ami-032930428b...	t2.micro	-	Tue Jul 20 2021 04:17:55 GMT+0530 (India Standard Time)

Launch configuration: ProjectSAA03-LaunchConfig-TDGB0WC4MPP

Details Copy launch configuration

AMI ID ami-032930428bf1abbff	Instance type t2.micro	IAM instance profile -
Kernel ID -	Key name Project03	Monitoring true
EBS optimized false	Security groups sg-0936988fe76952a3d	Spot price -
Create time Tue Jul 20 2021 04:17:55 GMT+0530 (India Standard Time)	RAM disk ID -	IP address type Default
Metadata accessible -	Token hop limit -	Metadata version -
User data View user data		

- Select **Keep this group at its initial size**
- Click on **Next: Configure Notifications**
- Click on **Next: Configure Tags**
- Enter suitable tags, and then click on **Review**
- Review the settings, and then click on **Create Auto Scaling group**
- Click on **View your Auto Scaling groups** and select the new group
- Click on **Actions**, select **Edit**, and then set the **Desired** value to **0**, **Min** value to **0**, and **Max** value to **1**

Group details		
Desired capacity 0	Auto Scaling group name WORDPRESS_AUTOSCALE	
Minimum capacity 0	Date created Tue Jul 20 2021 08:06:00 GMT+0530 (India Standard Time)	
Maximum capacity 1	Amazon Resource Name (ARN) arn:aws:autoscaling:us-east-1:665262576069:autoScalingGroup:341c0834-0ae5-4316-82f1-7acd0eb366dc:autoScalingGroupName/WORDPRESS_AUTOSCALE	
Launch configuration		
Launch configuration ProjectSAA03-LaunchConfig-TDGB0WC4MPP	AMI ID ami-032930428bf1abbff	Security groups sg-0936988fe76952a3d
Instance type t2.micro	Key pair name Project03	Create time Tue Jul 20 2021 04:17:55 GMT+0530 (India Standard Time)

- Click on the **Scheduled Actions** tab, and then click on **Create Scheduled Action** to create the scheduled actions
- Enter a **Name**, for example, **SCALEUP_9AM**, set the **Desired Capacity** as **one**, and then set the time when you want the job to run
- The time is in the **UTC** format, so you need to set it to the **UTC** equivalent of 9 AM for your time zone.
- Once complete, click on the **Create** button

Edit scheduled action
X

Name
SCALEUP_9AM

Provide at least one value for Desired, Min, or Max Capacity

Desired capacity	Min	Max
1		

Recurrence
Cron ▼
0 14 * * *

Time zone
Etc/UTC ▼

Current time in selected time zone is 2021-07-20/02:50 UTC

Specific start time
Schedule a specific date and time for the first scheduled action to run. Interpreted in recurrence time zone: Etc/UTC

2021/07/20
14:00
Etc/UTC

Set End Time

[Learn more about scheduled scaling](#)

Cancel
Save changes

- Enter a **Name**, for example, **SCALEDOWN_6PM**, set the **Desired Capacity** as **zero**, and then set the time when you want the job to run
- The time is in the **UTC** format, so you need to set it to the **UTC** equivalent of 6 PM for your time zone.
- Once complete, click on the **Create** button

Edit scheduled action

Name

SCALEDOWN_6PM

Provide at least one value for Desired, Min, or Max Capacity

Desired capacity

Min

Max

0

Recurrence

Cron

0 23 * * *

Time zone

Etc/UTC

Current time in selected time zone is 2021-07-20/02:53 UTC

Specific start time

Schedule a specific date and time for the first scheduled action to run. Interpreted in recurrence time zone: Etc/UTC

2021/07/20

23:00

Etc/UTC

Set End Time

[Learn more about scheduled scaling](#)

Cancel

Save changes

- Verify that the actions have been created successfully

Scheduled actions (2/2) [Info](#)

<input checked="" type="checkbox"/>	Name ▲	Start time ▼	End time ▼	Recurrence ▼	Time zone ▼	Desired capacity
<input checked="" type="checkbox"/>	SCALEDOWN_6PM	2021 July 21, 04:30:00...		0 23 * * *	Etc/UTC	0
<input checked="" type="checkbox"/>	SCALEUP_9AM	2021 July 20, 07:30:00...		0 14 * * *	Etc/UTC	1