

## **AIM: Implementation of SAAS using AWS**

### **THEORY:**

#### **SaaS (Software As A Service)**

Cloud application services, or Software as a Service (SaaS), represent the largest cloud market and are still growing quickly. SaaS uses the web to deliver applications that are managed by a third-party vendor and whose interface is accessed on the clients' side. Most SaaS applications can be run directly from a web browser without any downloads or installations required, although some require plugins.

Because of the web delivery model, SaaS eliminates the need to install and run applications on individual computers. With SaaS, it's easy for enterprises to streamline their maintenance and support, because everything can be managed by vendors: applications, runtime, data, middleware, OSes, virtualization, servers, storage and networking.

Popular SaaS offering types include email and collaboration, customer relationship management, and healthcare-related applications. Some large enterprises that are not traditionally thought of as software vendors have started building SaaS as an additional source of revenue in order to gain a competitive advantage.

**SaaS Examples:** Google Apps, Salesforce, Workday, Concur, Citrix GoToMeeting, Cisco WebEx

#### **AWS (Amazon Web Services)**

AWS provides a low cost, reliable, and secure foundation for you to use as you build and deliver Software as a Service (SaaS) solutions to customers. The AWS Partner Network (APN) helps companies build a successful AWS-based business by providing valuable business, technical, marketing, and go-to-market (GTM) support.

#### **Why Build SaaS on AWS:**

- **Innovation**

The breadth and depth of tools and services available on AWS can facilitate a faster time-to-market for SaaS providers. The pace of innovation at AWS also provides SaaS companies with new services and capabilities to enhance the features, cost, and management profile of their solutions. By leaving the operational responsibilities to AWS, you're able to focus more of your energy directly on the needs of your products.

- **Scale and Availability**

Uptime and the ability to respond to continually evolving workloads is essential to SaaS products.

AWS provides a broad range of capabilities that can be leveraged to align with the uptime requirements of SaaS environments.

- **Global Reach**

SaaS providers often need to reach customers in a broad range of geographies.

The AWS Cloud spans 64 Availability Zones within 21 geographic Regions around the world, with plans for more Availability Zones and more Regions.

- Security and Compliance

Customers of your SaaS product want to know that their data is secure and private. Cloud security at AWS is the highest priority. AWS customers benefit from a data center and network architecture built to meet the requirements of the most security-sensitive organizations.

- Pay for Use Pricing

Managing and optimizing costs is essential to SaaS environments. With the elasticity of the AWS environment, you're able to build SaaS solutions that are optimized to match the infrastructure of your multi-tenant load. Visit the pricing pages of each service to learn more.

CONCLUSION: We have successfully implemented SAAS using AWS.

# Amazon Web Services (AWS)

1. Create an account in Amazon Web Services by going to <https://aws.amazon.com/>
2. Login to your account

## (A) Creating a Virtual Desktop using EC2 Service

1. In your admin console, search for EC2 and select it.

The screenshot shows the AWS Management Console homepage. At the top, there's a navigation bar with the AWS logo, a 'Services' dropdown, 'Resource Groups', and user information ('AnkitaKar1412', 'N. Virginia', 'Support'). Below the navigation is the main header 'AWS Management Console'. On the left, there's a sidebar titled 'AWS services' with a 'Find Services' search bar containing 'EC2'. A dropdown menu for 'EC2' is open, showing options like 'Virtual Servers in the Cloud', 'EC2 Image Builder', 'AWS Compute Optimizer', 'AWS Firewall Manager', 'EFS', 'Elastic Container Service', and 'GuardDuty'. To the right of the sidebar, there are two main sections: 'Access resources on the go' (with a link to the AWS Console Mobile App) and 'Explore AWS' (listing 'Amazon SageMaker Studio', 'Amazon EFS Infrequent Access', and 'Amazon EMR'). At the bottom of the sidebar, there are three quick-launch links: 'Launch a virtual machine' (With EC2, 2-3 minutes), 'Build a web app' (With Elastic Beanstalk, 6 minutes), and 'Build using virtual servers' (With Lightsail, 1-2 minutes).

2. EC2 resource page will open. Click on “Launch Instances”.

The screenshot shows the AWS EC2 Dashboard. On the left, there's a sidebar with navigation links like 'New EC2 Experience', 'Events New', 'Tags', 'Reports', 'Limits', 'INSTANCES' (with 'Instances' and 'Instance Types' under it), 'Launch Templates New', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts New', 'Scheduled Instances', 'Capacity Reservations', 'IMAGES' (with 'AMIs' and 'Bundle Tasks' under it), and 'ELASTIC BLOCK'. The main area has a 'Resources' section with tables for 'Running instances' (0), 'Elastic IPs' (0), 'Dedicated Hosts' (0), 'Snapshots' (0), 'Volumes' (0), 'Load balancers' (0), 'Key pairs' (0), 'Security groups' (1), and 'Placement groups' (0). Below this is a 'Launch instance' section with a 'Launch instance' button and a note about launching in the US East (N. Virginia) Region. To the right is a 'Service health' section showing 'Region: US East (N. Virginia)' and 'Status: This service is operating normally'. On the far right, there's an 'Account attributes' panel with sections for 'Supported platforms' (VPC), 'Default VPC' (vpc-516b332b), 'Console experiments', and 'Settings'. A sidebar on the right also includes 'Explore AWS' with tips for cost optimization and 'Save with AMD EPYC-Powered EC2 instances'.

3. Select the operating system as “Windows” which is eligible for free tier.

The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' screen. It lists several AMI options:

- Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-08bc77a2c7eb2b1da** (64-bit x86) / ami-0c37ee902a7924ed2 (64-bit Arm)
  - Select** button
  - Free tier eligible
  - Ubuntu Server 16.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
  - Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
- Microsoft Windows Server 2019 Base** - ami-09d496c26aa745869
  - Select** button
  - Free tier eligible
  - Microsoft Windows 2019 Datacenter edition. [English]
  - Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
- Deep Learning AMI (Ubuntu 18.04) Version 27.0 - ami-0ddb717493016a1a**
  - Select** button
  - Free tier eligible
  - MXNet-1.6.0, Tensorflow-2.1.0 & 1.15.2, PyTorch-1.4.0, Keras-2.2, & other frameworks, configured with Neuron, NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker & NVIDIA-Docker. For fully managed experience, check: <https://aws.amazon.com/sagemaker>
  - Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
- Deep Learning AMI (Ubuntu 16.04) Version 27.0 - ami-0a79b70001264b442**
  - Select** button
  - Free tier eligible
  - MXNet-1.6.0, Tensorflow-2.1.0 & 1.15.2, PyTorch-1.4.0, Keras-2.2, & other frameworks, configured with Neuron, NVIDIA CUDA, cuDNN, NCCL, Intel MKL-DNN, Docker & NVIDIA-Docker. For fully managed experience, check: <https://aws.amazon.com/sagemaker>
  - Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

#### 4. Select “General Purpose” hardware which is eligible for free tier. Click Next

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
General purpose	<b>t2.micro</b> <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

#### 5. Specify the number instances, networking options, etc. Here we have kept the default values as they are. Click Next.

Step 3: Configure Instance Details

Additional charges apply.

Tenancy i: Shared - Run a shared hardware instance  
Additional charges will apply for dedicated tenancy.

Elastic Graphics i:  Add Graphics Acceleration  
Additional charges apply.

T2/T3 Unlimited i:  Enable  
Additional charges may apply

Advanced Details

Metadata accessible i: Enabled

Metadata version i: V1 and V2 (token optional)

Metadata token response hop limit i: 1

User data i:  As text  As file  Input is already base64 encoded  
(Optional)

Cancel Previous Review and Launch Next: Add Storage

## 6. Specify the Storage. We have kept the default value. Click Next.

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-06bc605cdf0e6fd3d	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

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## 7. Click on “Add Tag”. Specify the key and value. Click Next.

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.  
A copy of a tag can be applied to volumes, instances or both.  
Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	(128 characters maximum)	Value	(256 characters maximum)	Instances	Volumes
Name		WindowsServer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

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8. Configure security group to provide access to VM using different protocols. We have selected default RDP protocol. Click Review and Launch.

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. Learn more about Amazon EC2 security groups.

Assign a security group:

- Create a new security group
- Select an existing security group

Security group name: launch-wizard-1

Description: launch-wizard-1 created 2020-03-30T21:43:58.258+05:30

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

Add Rule

**⚠ Warning**  
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous Review and Launch

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9. Review the instance. Click Launch.

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

**⚠ Improve your instances' security. Your security group, launch-wizard-1, is open to the world.**  
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.  
You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. Edit security groups

AMI Details

Microsoft Windows Server 2019 Base - ami-09d496c26aa745869

Free tier eligible

Microsoft Windows 2019 Datacenter edition [English]  
Root Device Type: ebs Virtualization type: hvm

If you plan to use this AMI for an application that benefits from Microsoft License Mobility, fill out the License Mobility Form. Don't show me this again

Instance Type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups

Launch

Cancel Previous

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10. Select “Create a new key pair”. Set key pair name as cloud. Click on “Download Key Pair”. And then click on Launch Instance.

ck to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

## Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

cloud

Download Key Pair

You have to download the **private key file (\*.pem file)** before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel      Launch Instances

11. Click on View Instance.

aws Services Resource Groups ★ AnkitaKar1412 N. Virginia Support

### Launch Status

Your instances are now launching  
The following instance launches have been initiated: i-097ee78ebe1765319 [View launch log](#)

Get notified of estimated charges  
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

#### How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can [connect](#) to them from the Instances screen. [Find out how to connect to your instances.](#)

Here are some helpful resources to get you started

- How to connect to your Windows instance
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- Amazon EC2: Microsoft Windows Guide
- Amazon EC2: Discussion Forum

While your instances are launching you can also

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## Launch Status

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- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Microsoft Windows Guide](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

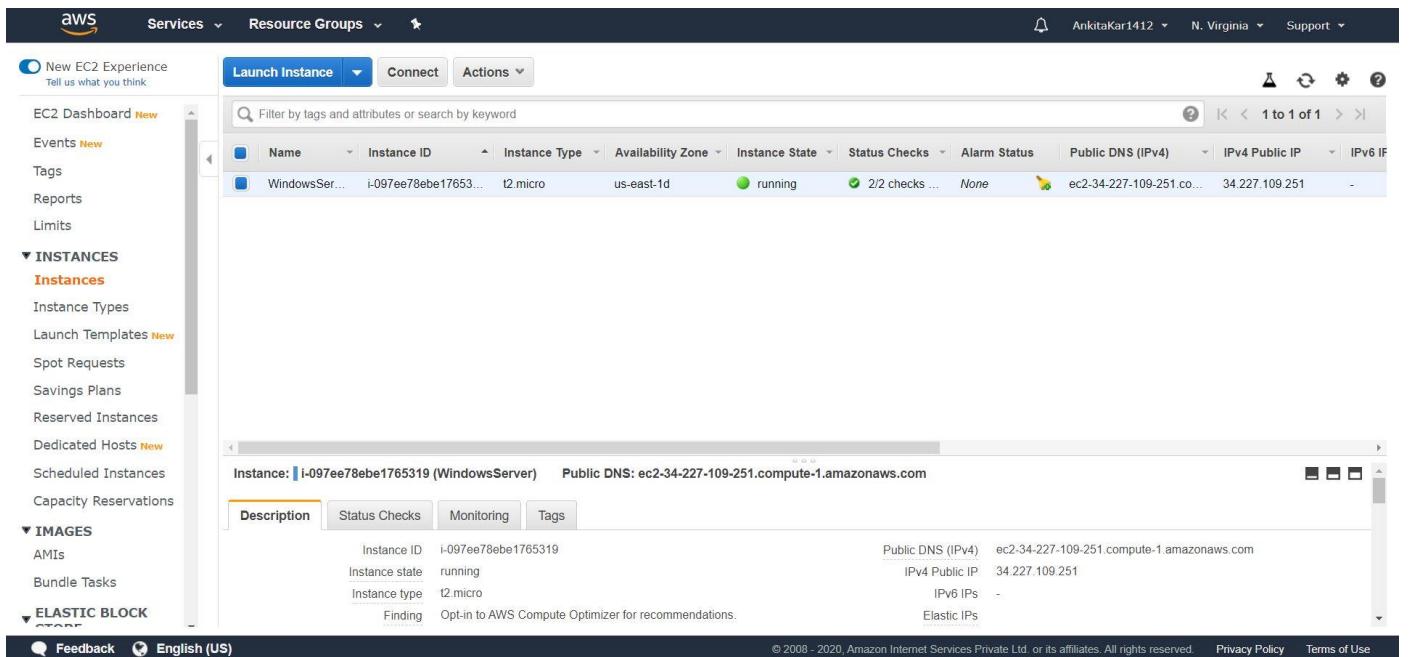
- Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)
- Create and attach additional EBS volumes (Additional charges may apply)
- Manage security groups

[View Instances](#)

[Feedback](#) [English \(US\)](#)

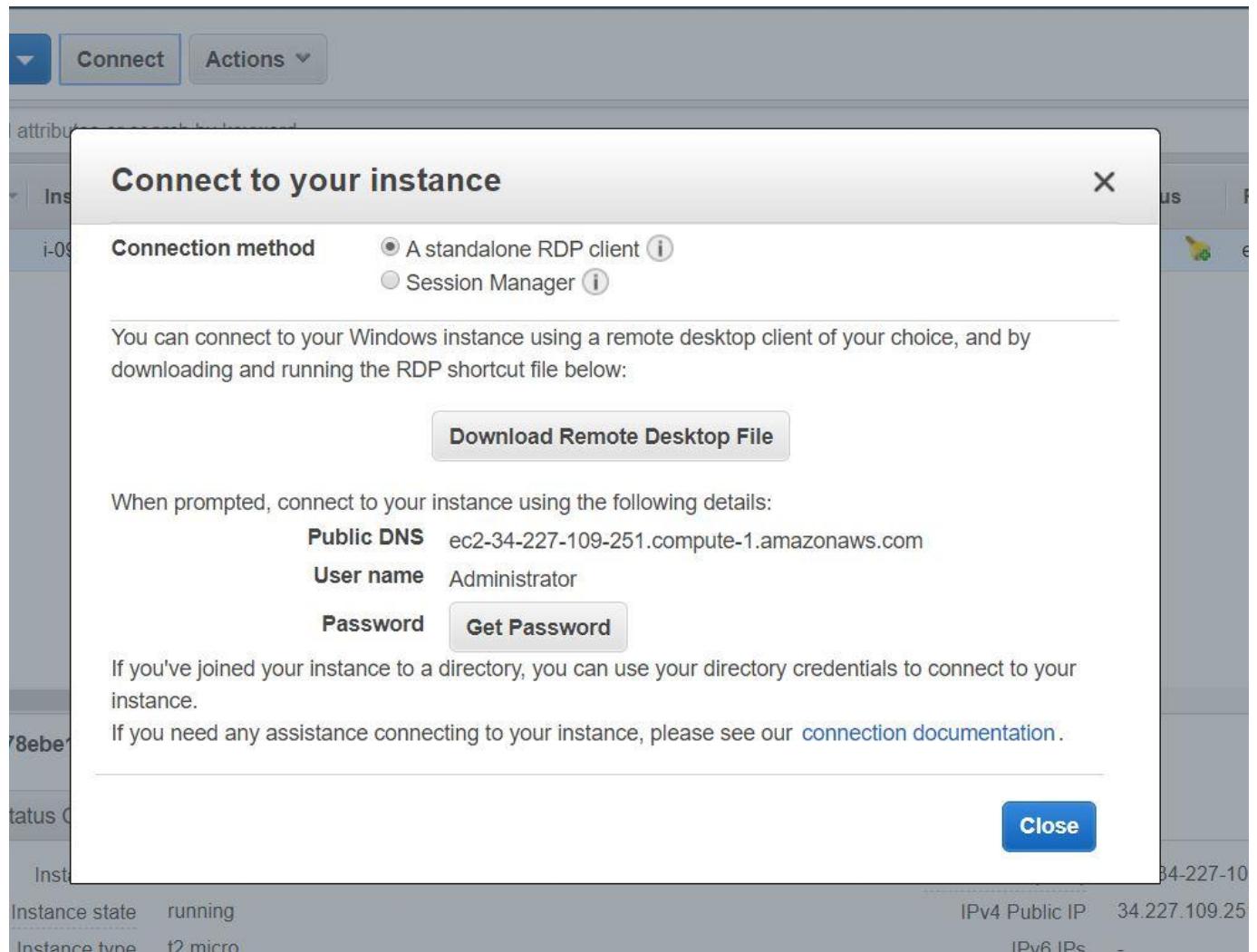
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## 12. You will see summary of your instance.

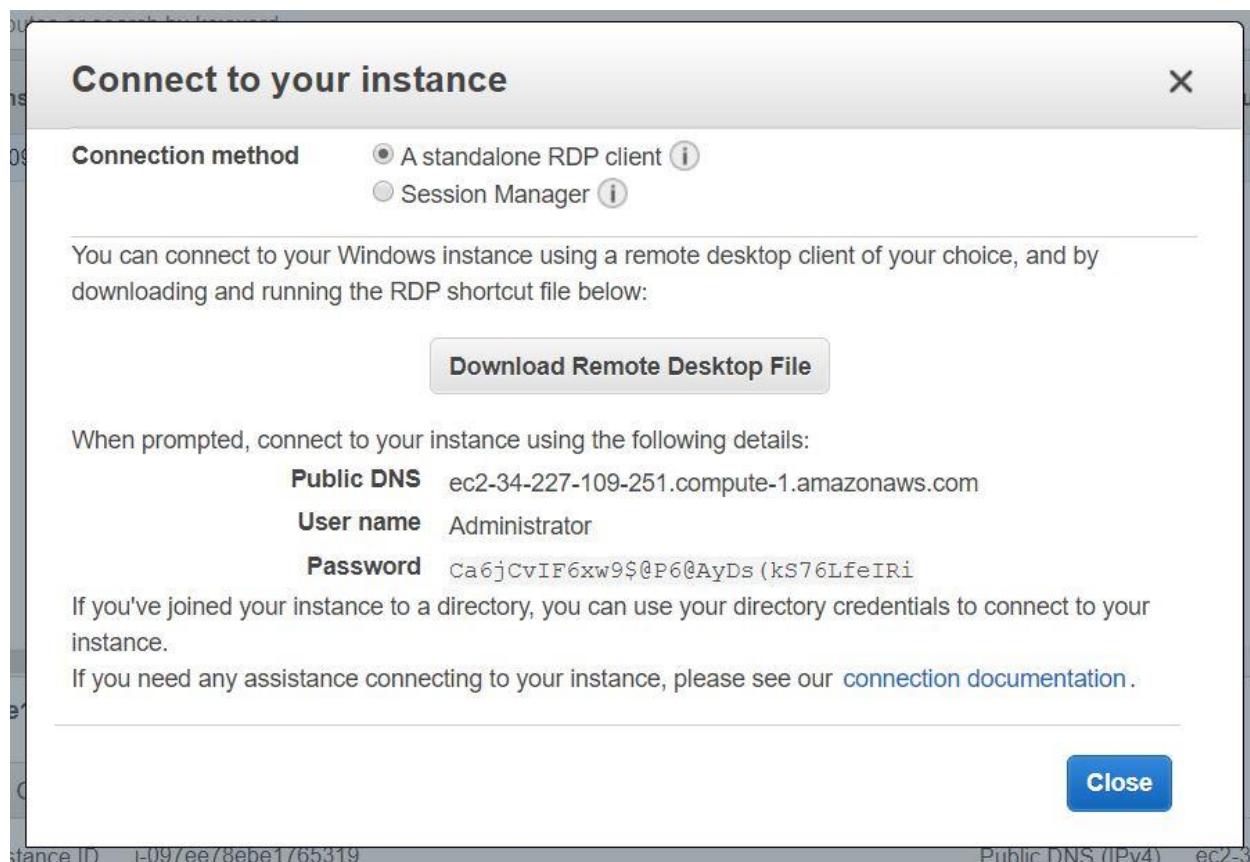
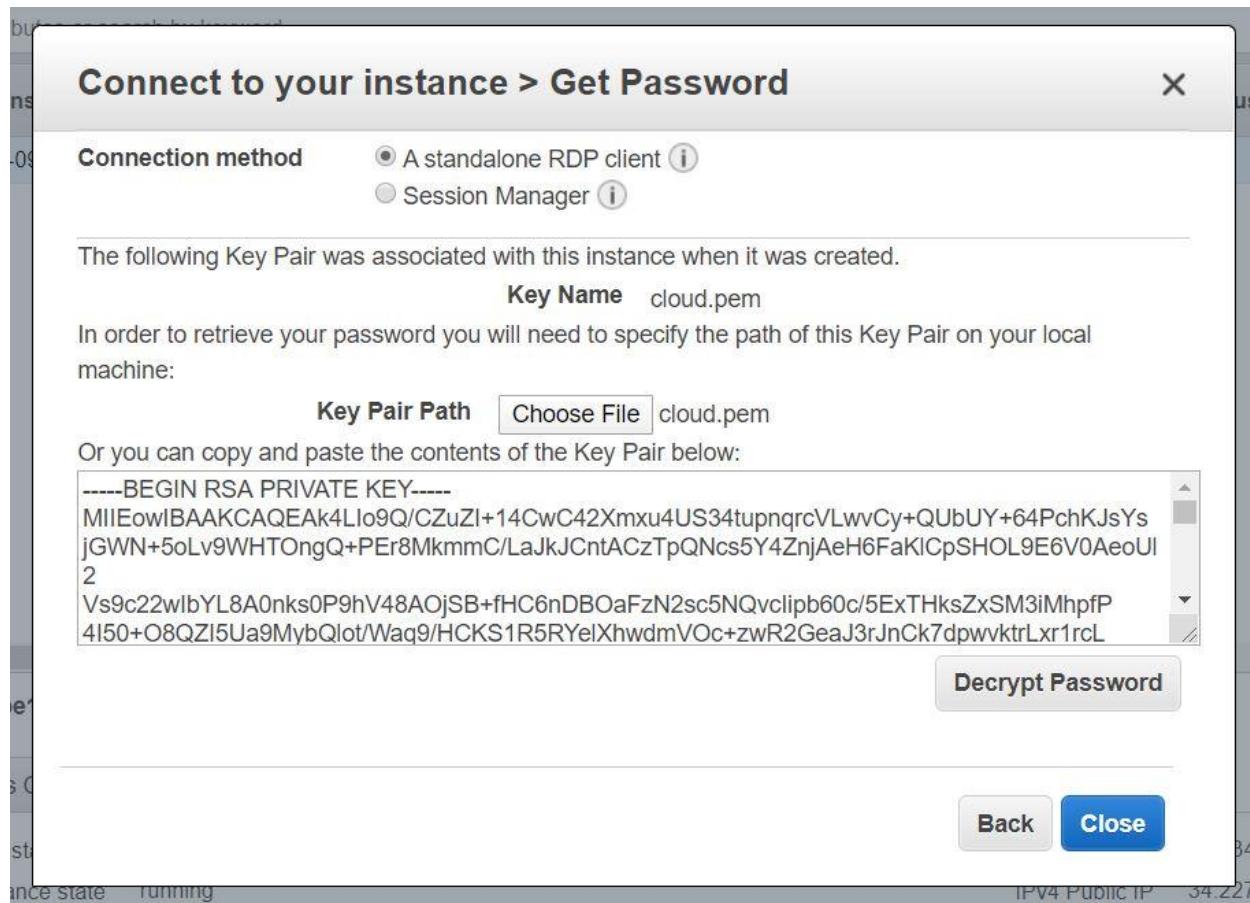


The screenshot shows the AWS EC2 Dashboard. On the left, there's a sidebar with navigation links like New EC2 Experience, EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, AMIs, Bundle Tasks, and Elastic Block Store. The main area has tabs for Launch Instance, Connect, and Actions. Below that is a search bar and a table with one row of data. The table columns include Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, Public DNS (IPv4), IPv4 Public IP, and IPv6 IP. The data row shows 'WindowsSer...' as the name, 'i-097ee78ebe1765319' as the Instance ID, 't2.micro' as the Instance Type, 'us-east-1d' as the Availability Zone, 'running' as the Instance State, '2/2 checks ...' as Status Checks, 'None' as Alarm Status, 'ec2-34-227-109-251.co...' as Public DNS (IPv4), '34.227.109.251' as IPv4 Public IP, and '-' as IPv6 IP. At the bottom, there's a detailed view for the selected instance, showing fields like Description, Status Checks, Monitoring, and Tags. The status checks table shows the instance ID, state, type, and a note about finding the AWS Compute Optimizer. The monitoring table shows public DNS, IPv4 public IP, IPv6 IPs, and elastic IPs. The bottom of the page includes a feedback link, language selection, and a copyright notice.

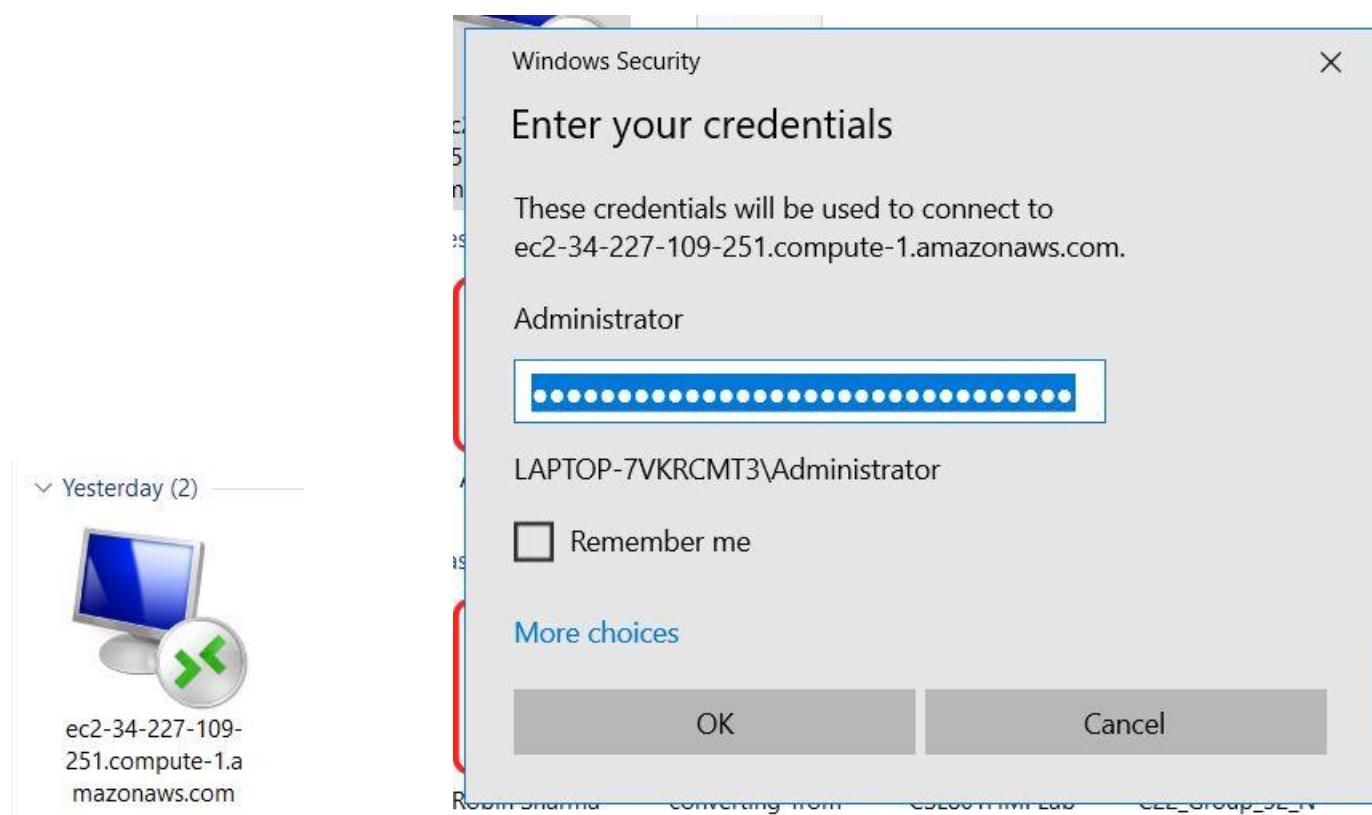
13. Click on “Connect”. Then click on “Get Password”.



14. Select the downloaded file (in step 10). Then click Decrypt Password.



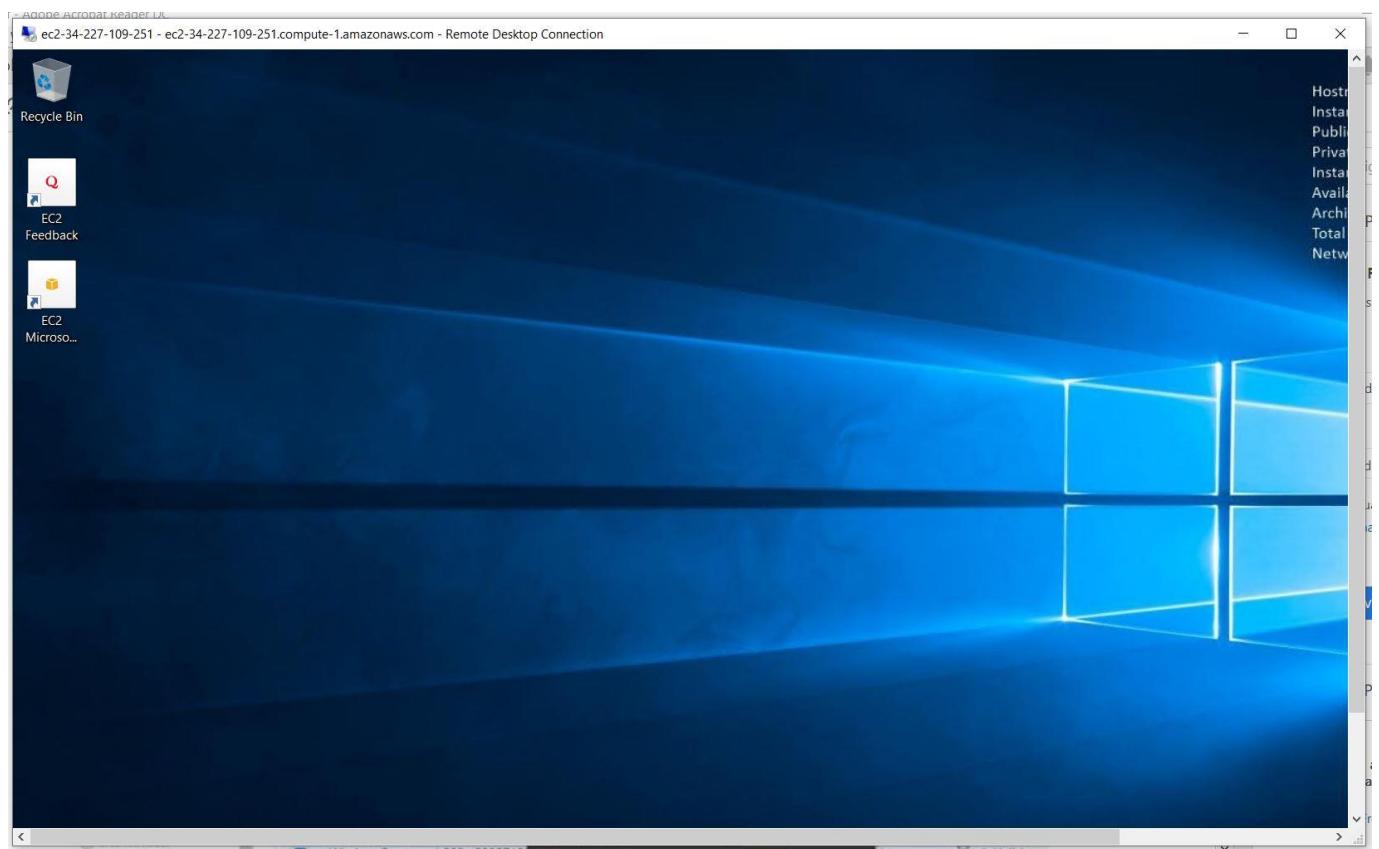
15. Now click “Download Remote Desktop File”. Open the downloaded file. It will ask for Credentials. Put Username as “Administrator” and Password as the password which we got in step 14.



16. Select Yes.



17. You will now see a virtual desktop running on your screen.



18. You can shut down instance by selecting instance state followed by stop.

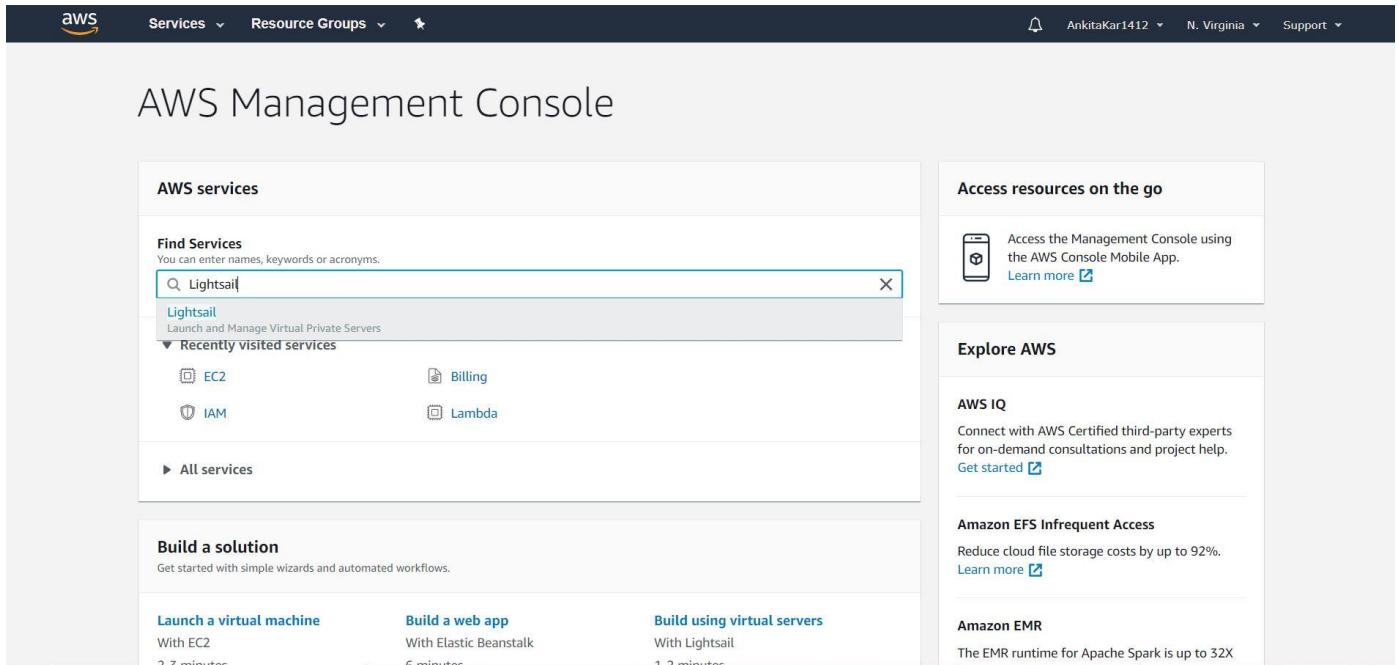
A screenshot of the AWS Management Console, specifically the EC2 Instances page. The left sidebar shows navigation options like New EC2 Experience, EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (selected), Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, IMAGES, AMIs, and Bundle Tasks. The main content area shows a table of instances. One instance, "WindowsSer... i-097ee78be1765319", is selected. A context menu is open over this instance, with the "Actions" dropdown expanded. The "Instance State" option is selected, revealing a submenu with "Start", "Stop", "Stop - Hibernate", "Reboot", and "Terminate". Below the table, a detailed view of the selected instance is shown, including its ID, state, type, and network information, along with its public DNS and IP addresses.

19. You can shut down instance by selecting instance state followed by Terminate.

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links like EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, AMIs, and Bundle Tasks. The main area displays a table of instances. A context menu is open over an instance named "WindowsSer...". The menu has options: Connect, Get Windows Password, Create Template From Instance, Launch More Like This, Instance State (selected), Instance Settings, Image, Networking, CloudWatch Monitoring, Start, Stop, Stop - Hibernate, Reboot, and Terminate. Below the table, a detailed view of the selected instance (i-097ee78ebe1765319) is shown, including its ID, state (running), type (t2.micro), and network details. At the bottom, a modal dialog titled "Terminate Instances" contains a warning message about EBS-backed instances and root volume deletion, followed by a question "Are you sure you want to terminate these instances?" with a list of the selected instances and two buttons: "Cancel" and "Yes, Terminate".

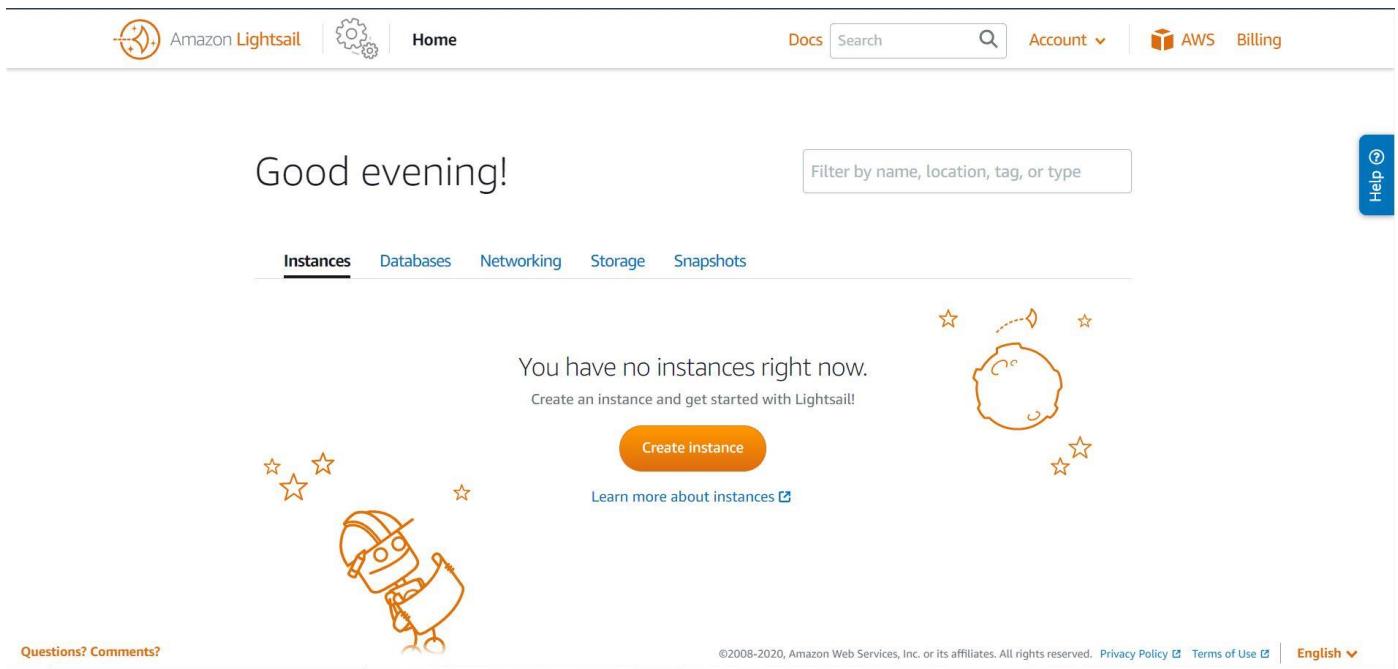
## (B) Creating a WordPress Website using Lightsail Service

1. In your admin console, search for Lightsail and select it.



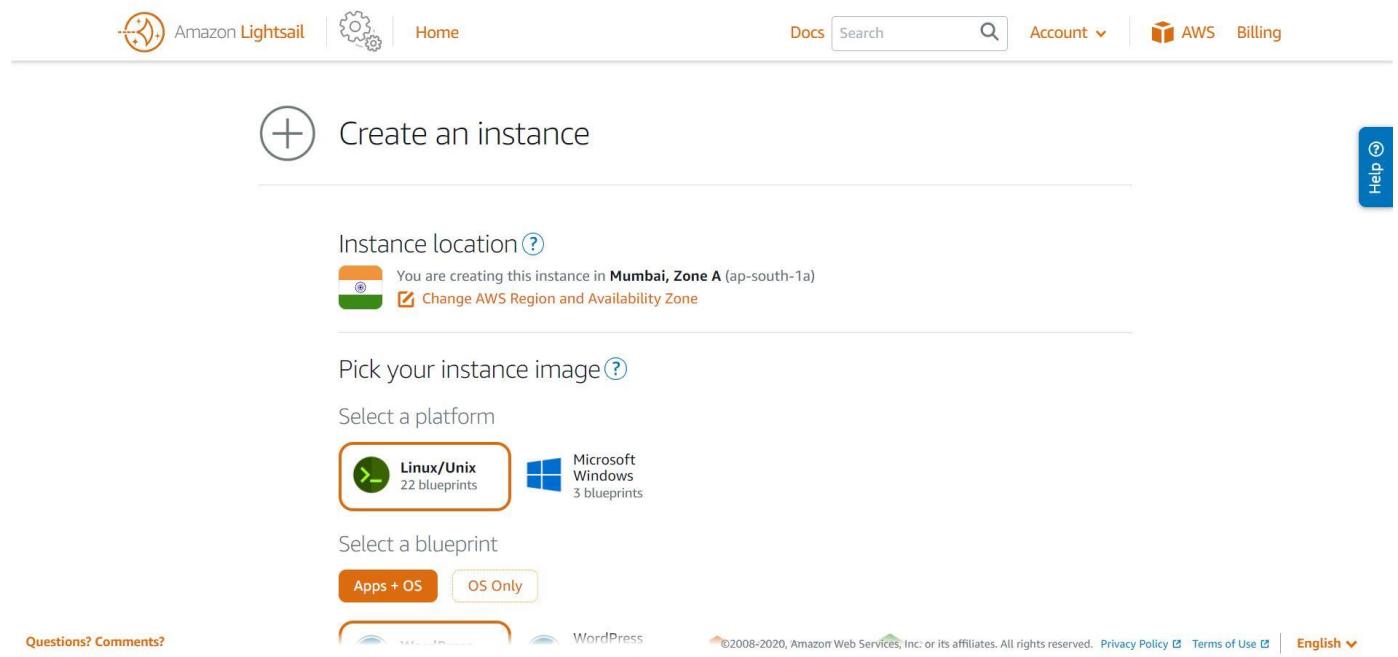
The screenshot shows the AWS Management Console homepage. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Resource Groups' dropdown, and user information ('AnkitaKar1412', 'N. Virginia', 'Support'). Below the navigation is the title 'AWS Management Console'. On the left, there's a sidebar titled 'AWS services' with a search bar containing 'Lightsail'. Under 'Recently visited services', there are links for EC2, IAM, Billing, Lambda, and All services. To the right, there are sections for 'Access resources on the go' (with a link to the AWS Console Mobile App), 'Explore AWS' (with a link to AWS IQ), and 'Amazon EFS Infrequent Access' (with a link to Learn more). At the bottom of the sidebar, there are three quick-launch options: 'Launch a virtual machine' (With EC2, 2-3 minutes), 'Build a web app' (With Elastic Beanstalk, 5 minutes), and 'Build using virtual servers' (With Lightsail, 1-2 minutes).

2. Select “Create Instance”.



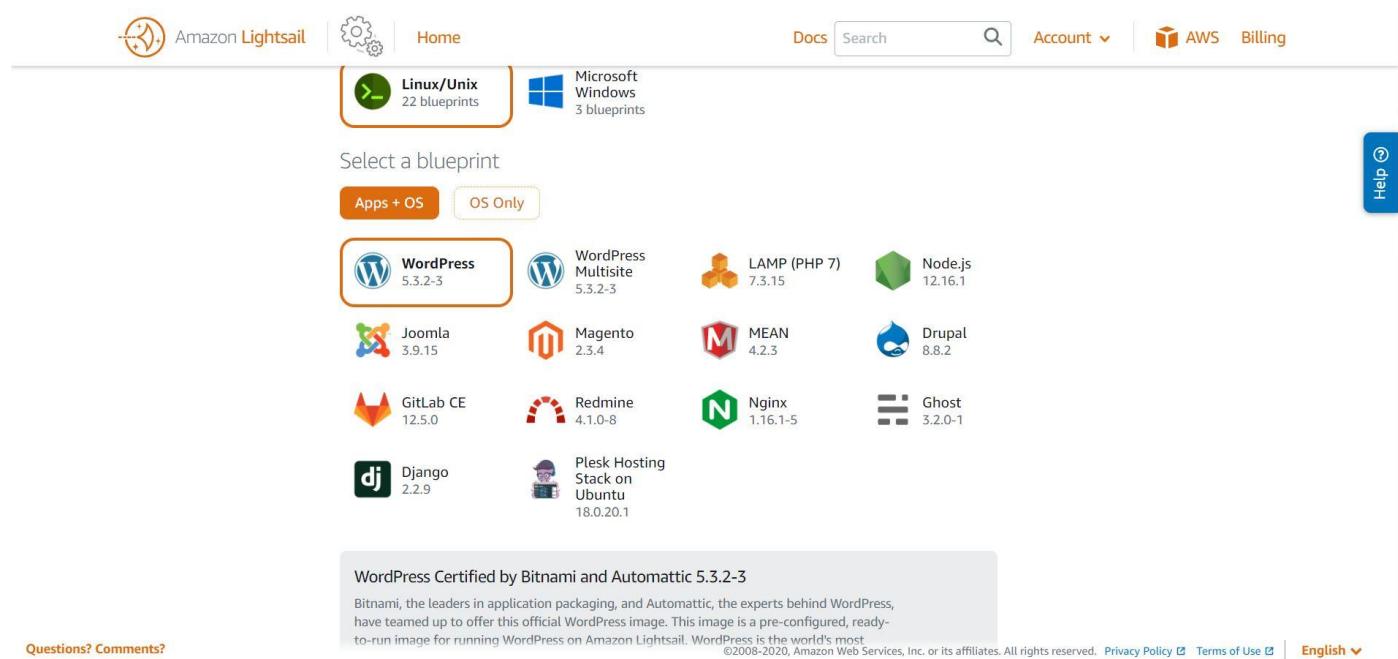
The screenshot shows the Amazon Lightsail Instances page. At the top, there's a header with the Amazon Lightsail logo, a gear icon, 'Home' link, 'Docs' link, a search bar, 'Account' dropdown, 'AWS' icon, and 'Billing' link. To the right is a 'Help' button. The main area has a friendly cartoon character holding a wrench. A message says 'Good evening!' and 'You have no instances right now. Create an instance and get started with Lightsail!'. Below this is a large orange 'Create instance' button and a link 'Learn more about instances'. At the bottom, there are links for 'Instances', 'Databases', 'Networking', 'Storage', and 'Snapshots'. The footer includes 'Questions? Comments?' and copyright information: '©2008-2020, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy | Terms of Use | English'.

### 3. Select Linus hosting instance.



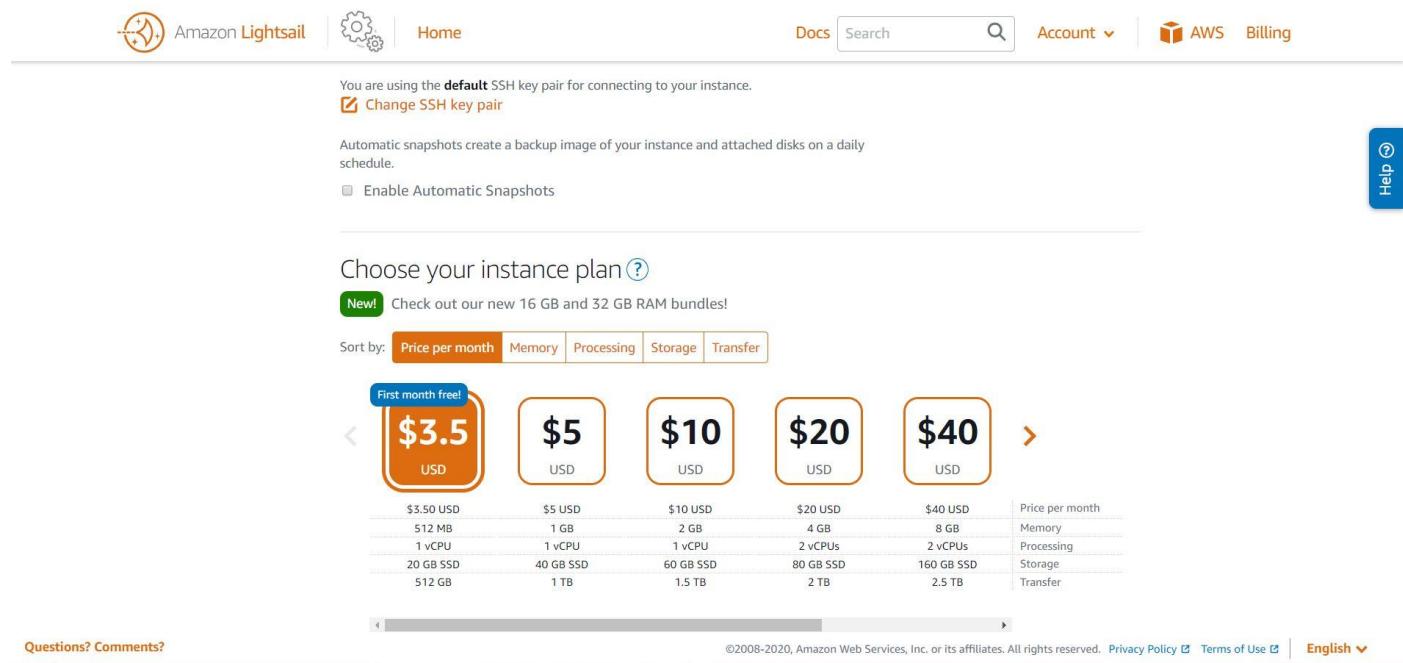
The screenshot shows the 'Create an instance' page on Amazon Lightsail. At the top, there's a header with the Amazon Lightsail logo, a gear icon, and a search bar. Below the header, a large plus sign icon and the text 'Create an instance' are displayed. The main section starts with 'Instance location' with a note about creating an instance in Mumbai, Zone A (ap-south-1a). It includes a dropdown for 'Change AWS Region and Availability Zone'. The next section is 'Pick your instance image' with a 'Select a platform' dropdown showing 'Linux/Unix' (22 blueprints) and 'Microsoft Windows' (3 blueprints), where 'Linux/Unix' is selected. Below this, there's a 'Select a blueprint' section with 'Apps + OS' and 'OS Only' buttons, and a grid of blueprint icons including WordPress, LAMP (PHP 7), Node.js, Joomla, Magento, MEAN, Drupal, GitLab CE, Redmine, Nginx, Ghost, Django, and Plesk Hosting Stack on Ubuntu. At the bottom, there are links for 'Questions? Comments?' and 'English'.

### 4. Select WordPress hosting.



The screenshot shows the 'Select a blueprint' page on Amazon Lightsail. The interface is similar to the previous one, with the Amazon Lightsail logo, gear icon, and search bar at the top. The 'Linux/Unix' blueprint is highlighted with a blue border. Below the blueprint selection, there's a 'Select a blueprint' section with 'Apps + OS' and 'OS Only' buttons, and a grid of blueprint icons for various applications like WordPress, LAMP (PHP 7), Node.js, Joomla, Magento, MEAN, Drupal, GitLab CE, Redmine, Nginx, Ghost, Django, and Plesk Hosting Stack on Ubuntu. A callout box highlights the 'WordPress Certified by Bitnami and Automattic 5.3.2-3' blueprint. At the bottom, there are links for 'Questions? Comments?' and 'English'.

## 5. Choose the first plan which is eligible for free tier.



You are using the **default** SSH key pair for connecting to your instance.  
 Change SSH key pair

Automatic snapshots create a backup image of your instance and attached disks on a daily schedule.  
 Enable Automatic Snapshots

Choose your instance plan [?](#)

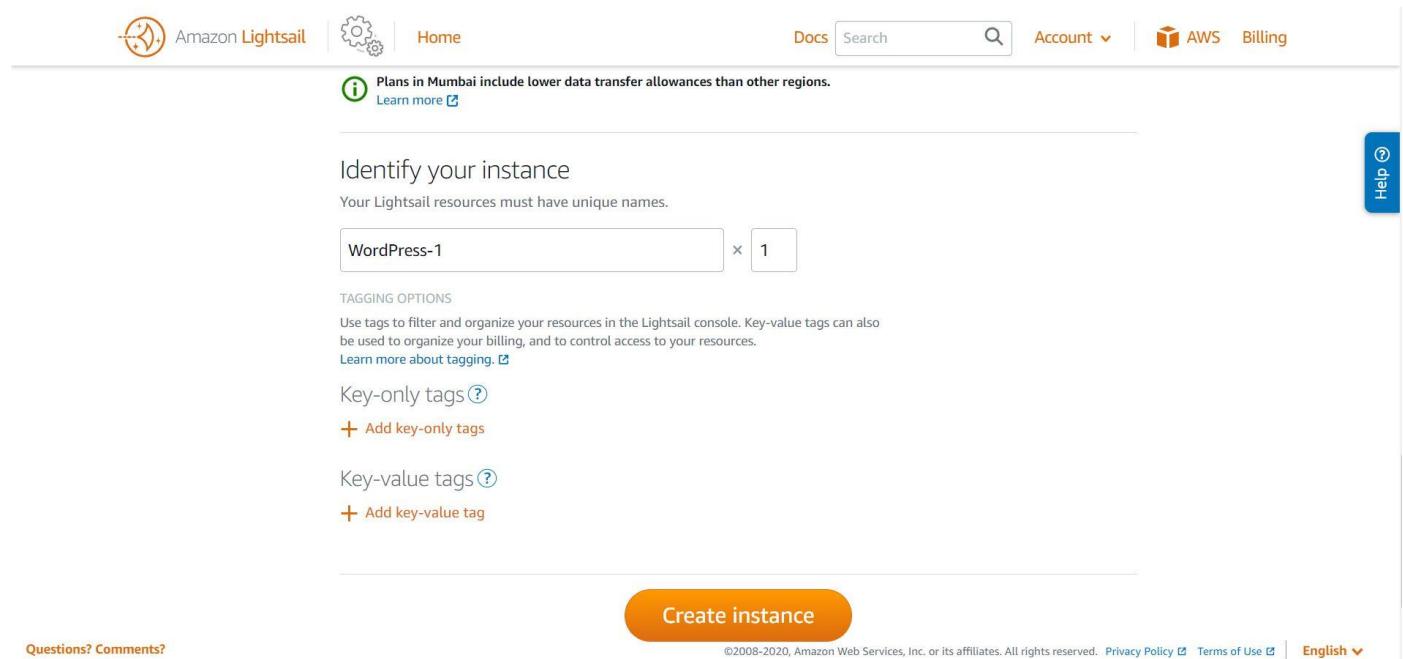
New! Check out our new 16 GB and 32 GB RAM bundles!

Sort by: **Price per month** Memory Processing Storage Transfer

First month free!	\$3.5	\$5	\$10	\$20	\$40	>
\$3.50 USD	\$5 USD	\$10 USD	\$20 USD	\$40 USD	Price per month	
512 MB	1 GB	2 GB	4 GB	8 GB	Memory	
1 vCPU	1 vCPU	1 vCPU	2 vCPUs	2 vCPUs	Processing	
20 GB SSD	40 GB SSD	60 GB SSD	80 GB SSD	160 GB SSD	Storage	
512 GB	1 TB	1.5 TB	2 TB	2.5 TB	Transfer	

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## 6. Specify instance name and Add key-only tags.



Plans in Mumbai include lower data transfer allowances than other regions.  
[Learn more](#)

Identify your instance  
Your Lightsail resources must have unique names.

WordPress-1 x 1

TAGGING OPTIONS  
Use tags to filter and organize your resources in the Lightsail console. Key-value tags can also be used to organize your billing, and to control access to your resources.  
[Learn more about tagging](#)

Key-only tags [?](#)  
+ Add key-only tags

Key-value tags [?](#)  
+ Add key-value tag

Create instance

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## Identify your instance

Your Lightsail resources must have unique names.

WordPress-1  1

### TAGGING OPTIONS

Use tags to filter and organize your resources in the Lightsail console. Key-value tags can also be used to organize your billing, and to control access to your resources.

[Learn more about tagging.](#)

#### Key-only tags

 WordpressServer  Enter a tag key

Add a tag key and press **Enter**.

#### Key-value tags

 Add key-value tag

**Create instance**

[Questions? Comments?](#)

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## 7. Then click on Create Instance.

Good evening!

Filter by name, location, tag, or type

**Instances** Databases Networking Storage Snapshots

Sort by **Date** 

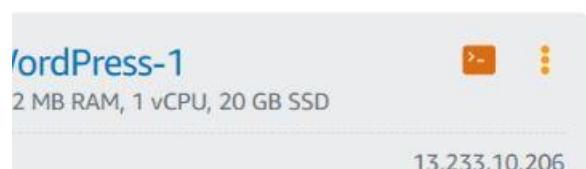
**Create instance**

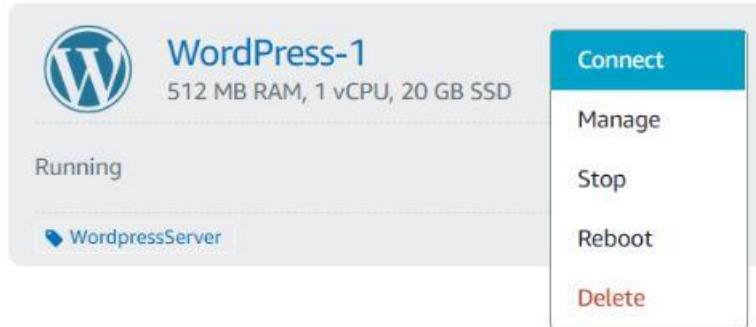
	<b>WordPress-1</b>	512 MB RAM, 1 vCPU, 20 GB SSD	 
Running		13.233.10.206 Mumbai, Zone A	
 WordpressServer			

[Questions? Comments?](#)

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## 8. Go to the three vertical dots icon and select “Connect”.





WordPress-1 – Terminal | Lightsail - Google Chrome  
lightsail.aws.amazon.com/ls/remote/ap-south-1/instances/WordPress-1/terminal?protocol=ssh

```
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-1102-aws x86_64)
*** System restart required ***

[   ] [   ] [   ] [   ] [   ]
[   ] [   ] [   ] [   ] [   ]
[   ] [   ] [   ] [   ] [   ]

*** Welcome to the Bitnami WordPress 5.3.2-3 ***
*** Documentation: https://docs.bitnami.com/aws/apps/wordpress/ ***
*** https://docs.bitnami.com/aws/ ***
*** Bitnami Forums: https://community.bitnami.com/ ***

#####
### For frequently used commands, please run:
### sudo /opt/bitnami/bnhelper-tool
#####

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

bitnami@ip-172-26-6-13:~$
```

WordPress-1  
13.233.10.206

9. Type command **cat bitname\_application\_password**. Note down this password in Notepad or any safe place

```
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.4.0-1102-aws x86_64)
*** System restart required ***
```



```
*** Welcome to the Bitnami WordPress 5.3.2-3 ***
*** Documentation: https://docs.bitnami.com/aws/apps/wordpress/
*** https://docs.bitnami.com/aws/
*** Bitnami Forums: https://community.bitnami.com/
```

```
#####
### For frequently used commands, please run:
###   sudo /opt/bitnami/bnhelper-tool
#####

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

```
bitnami@ip-172-26-6-13:~$ ls
apps  bitnami_application_password  bitnami_credentials  htdocs  stack
bitnami@ip-172-26-6-13:~$ cat bitnami_application_password
mCBBjfA42Fx3
bitnami@ip-172-26-6-13:~$
```

10. Now we have to reserve a static IP address for our website. In browser, go to Networking tab and select “Create static IP”.

Instances   Databases   **Networking**   Storage   Snapshots

You have no network resources right now.

Network resources improve how users and outside services connect to Lightsail instances.

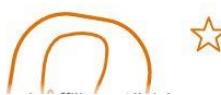
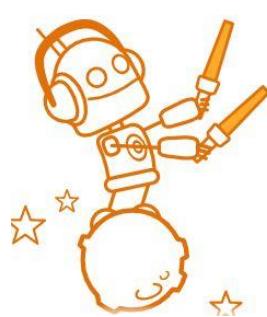
A **Static IP** is a fixed, public IP address that you can always rely on to be the same.

[Create static IP](#)

A **DNS zone** defines subdomains for a domain and directs traffic to your endpoints.

[Create DNS zone](#)

A **Load balancer** distributes traffic from a single endpoint among multiple instances.



## 11. Select the wordpress instance.

Amazon Lightsail | Home | Docs | Search | Account | AWS | Billing | Help

### Create a static IP address

A static IP is a fixed, public IP address that you can assign and reassign to your instances.

**Static IP location** ⓘ

You are creating this static IP in **Mumbai, all zones** (ap-south-1)

[Change AWS Region and Availability Zone](#)

**Attach to an instance**

Attaching a static IP replaces that instance's dynamic IP address.

Static IP addresses can only be attached to instances in the same region.

Select an instance... ▾

WordPress-1

[Questions? Comments?](#) [Identify your static IP](#) ©2008-2020, Amazon Web Services, Inc. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#) [English](#)

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### Create a static IP address

A static IP is a fixed, public IP address that you can assign and reassign to your instances.

**Static IP location** ⓘ

You are creating this static IP in **Mumbai, all zones** (ap-south-1)

[Change AWS Region and Availability Zone](#)

**Attach to an instance**

Attaching a static IP replaces that instance's dynamic IP address.

**WordPress-1**

512 MB RAM, 1 vCPU, 20 GB SSD

WordPress

WordpressServer

[Cancel](#) ⏺

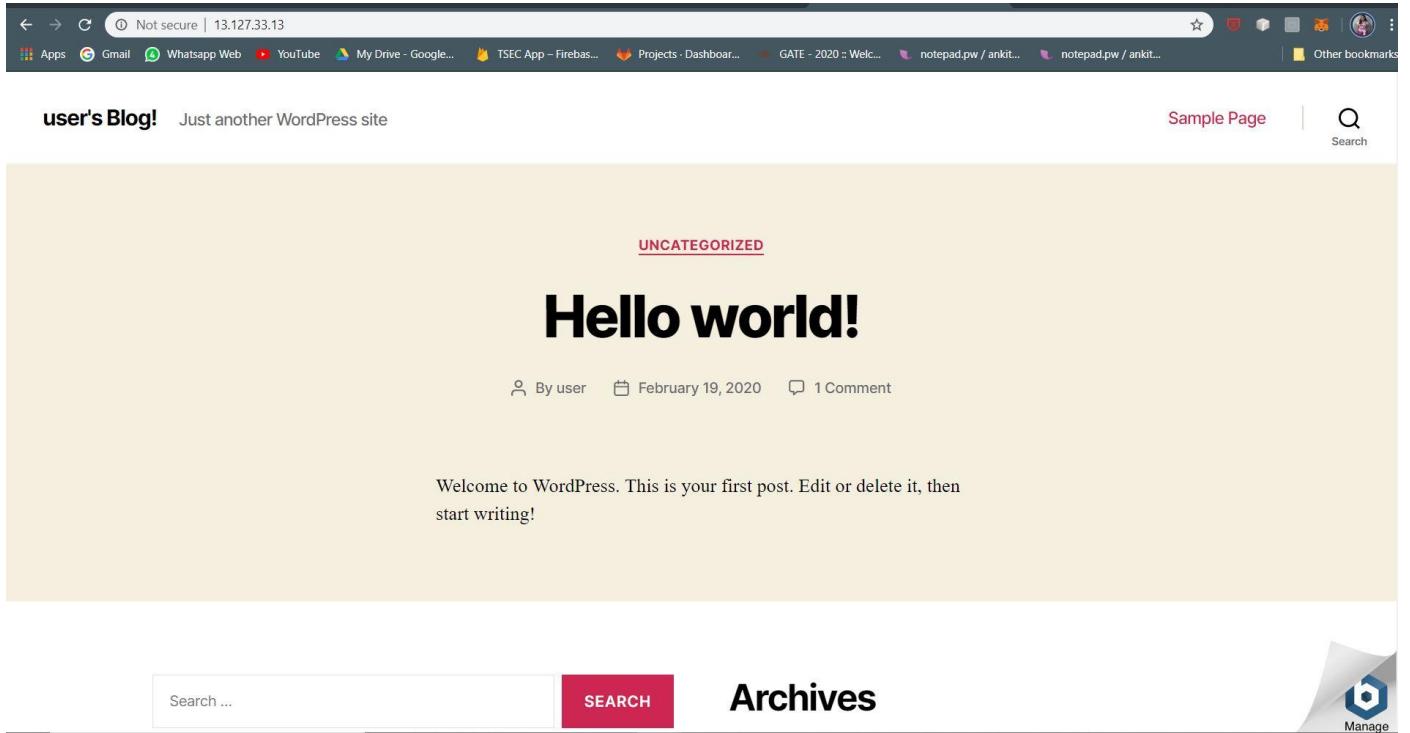
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12. Keep the name as it is. Click Create. You will get your static IP address. Here it is 13.127.33.13

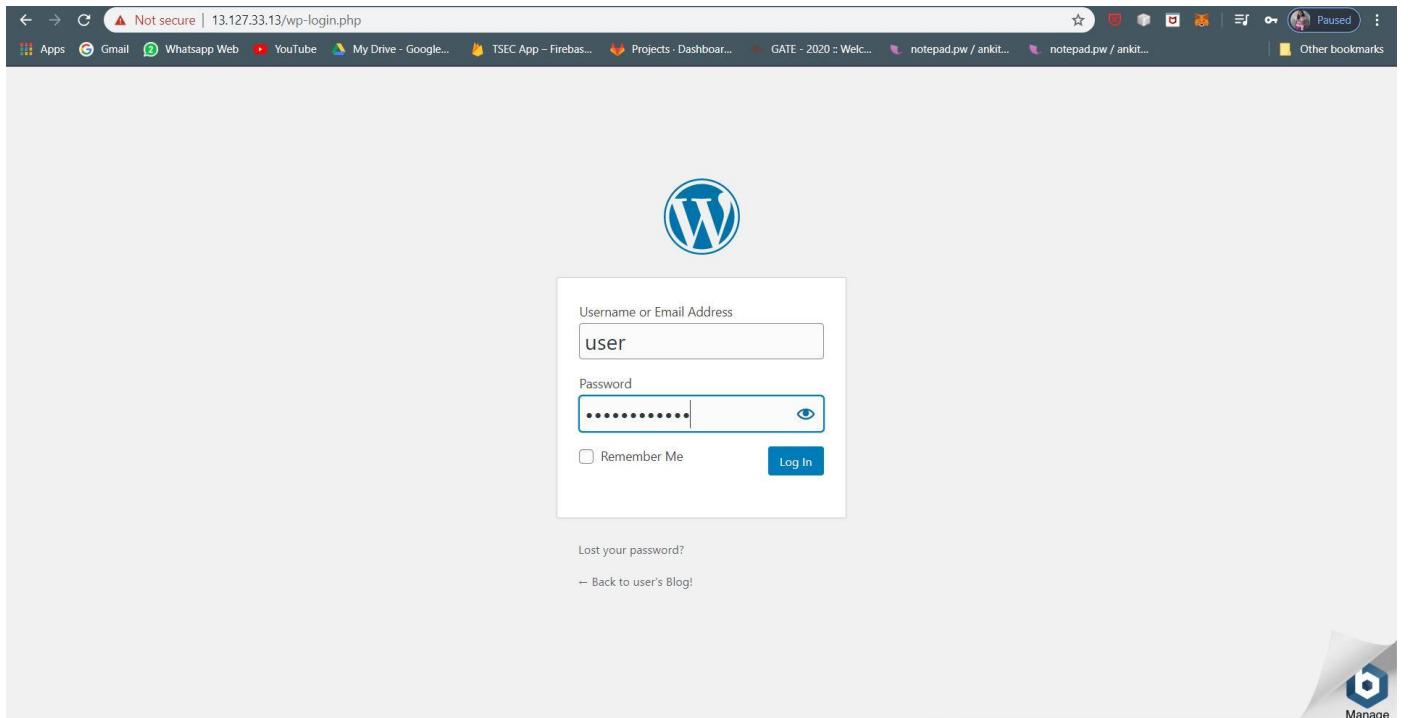
The screenshot shows the Amazon Lightsail interface. At the top, there are navigation links for Home, Docs, Search, Account, AWS, and Billing. A sidebar on the right has a Help button. In the center, there's a card for a WordPress instance named "WordPress-1" with 512 MB RAM, 1 vCPU, and 20 GB SSD. Below this, a "WordpressServer" tag is shown. A "Cancel" button with a trash icon is at the bottom right of the card. Below the card, a section titled "Identify your static IP" asks for a unique name, with "StaticIp-1" entered in the input field. A note states: "Static IP addresses are free only while attached to an instance. You can manage five at no additional cost." A large orange "Create" button is centered below the note. At the bottom of the page, there are links for "Questions? Comments?", AWS Customer Agreement, Privacy Policy, Terms of Use, and English language selection.

The screenshot shows the Amazon Lightsail interface after creating the static IP. The top navigation and sidebar are identical to the previous screenshot. In the center, there's a card for the static IP "StaticIp-1", which is "Attached" to the "WordPress-1" instance. It shows "Static IP, Attached" and "Mumbai, all zones (ap-south-1)". To the right, the static IP address "13.127.33.13" is displayed. Below the card, there are "Details" and "Delete" buttons. Under "Public static IP address", the IP "13.127.33.13" is listed with the note: "This static IP is available for public connection worldwide." An "Attach to an instance" section shows the "WordPress-1" instance again with a "Detach" button. At the bottom, there are links for "Questions? Comments?", AWS Customer Agreement, Privacy Policy, Terms of Use, and English language selection.

13. Open this IP address in new tab of your browser.



14. You can login into your admin console of Wordpress. Open new tab in browser. Type in your address bar <http://PublicIpAddress/wp-login.php> Replace “PublicIpAddress” in this link you’re your static IP Address. In this example, link will be <http://13.127.33.13/wp-admin/>. Type Usename as “user” and Password as the one which you got in step 9. Click Log In.



15. You will see the admin dashboard. Now you can create a complete Word press website and use it.

The screenshot shows the WordPress Admin Dashboard at the URL 13.127.33.13/wp-admin/. The dashboard features a dark sidebar on the left with various menu items: Home, Updates (6), Jetpack, Posts, Media, Pages, Comments, Appearance, Plugins (6), Users, Tools, Settings, and a Collapse menu. The main content area has a "Welcome to WordPress!" header and a "Get Started" section with a "Customize Your Site" button and a note about changing the theme. It also includes sections for "At a Glance" (1 Post, 1 Page, 1 Comment) and "Activity" (Recently Published: Feb 19th, 2:36 pm, Hello world!). To the right, there's a "Quick Draft" section with fields for Title and Content, and a "Save Draft" button. A "More Actions" sidebar offers links to Manage widgets, Manage menus, Turn comments on or off, and Learn more about getting started. A large, dashed rectangular area on the right is labeled "Drag boxes here". The top navigation bar shows several browser tabs and the user "Howdy, user".