

EXPERIMENT 10

Aim: Implementation of SaaS using AWS / Azure

Theory

Software as a service [SaaS] is a way of delivering applications over the internet as a service.

It is called web based software, on-demand software, or hosted software.

It runs on a SaaS providers server. The provider manages access to the applications, including security, availability and performance.

SaaS works through the cloud delivery model. A software provider will either host the application and related data using its own servers, databases, networking and computing resources, or it may be on IaaS that contacts the cloud provider to host the applications in the providers data center.

Characteristics

1] Multitenant architecture

All users and applications share a single common infrastructure and code base that is centrally maintained.

ii] Easy customisation

The ability for each user for easily customising applications to fit their purposes without affecting the common infrastructure.

iii] Better Access

Easily accessible from any networked device, while making it easier to manage privileges, monitor database and ensure everyone has the same information at the same time.

Amazon Lightsail

- Amazon Lightsail is an easy-to-use cloud service that offers you everything needed to deploy an application or website.
- Under the hood, Lightsail is powered by Amazon Elastic Compute Cloud (EC2), Amazon Relational Database Service (RDS), Application Load Balancer and other AWS services.
- When deploying to Lightsail, you can choose between six operating systems [4 Linux distributions, FreeBSD, Windows], seven applications [WordPress, Drupal, Plisk, ...] and seven stacks [Node.js, LAMP, ...]

Amazon Lightsail offers a simple way for developers to deploy their containers to the cloud. The user needs to provide a docker image for container and it is automatically containerized. Lightsail gives user an HTTPS endpoint that is ready to serve the application running in the cloud container.

It automatically sets up a load balanced TLS endpoint, and takes care of the TLS certificate. It replaces unresponsive containers automatically, it assigns a DNS name to endpoint. It maintains the old version till the new version is healthy and live to go.


Conclusion.


A wordpress website was successfully deployed using Amazon Lightsail for demonstration of SaaS using AWS

Creation of instance in Amazon Lightsail:

Pick your instance image [?](#)

Select a platform


 **Linux/Unix**
28 blueprints


 **Microsoft Windows**
4 blueprints


Select a blueprint


Apps + OS


OS Only


 **WordPress**
5.6.1-1


 **WordPress Multisite**
5.6.1


 **LAMP (PHP 7)**
7.4.15-3


 **Node.js**
12.20.2


 **Joomla**
3.9.24-8


 **Magento**
2.4.1-12


 **MEAN**
4.4.4


 **Drupal**
9.1.4-5


 **GitLab CE**
12.5.0


 **Redmine**
4.1.1-7


 **Nginx**
1.18.0-42

 **Ghost**
3.41.5

 **Django**
3.1.6-4

 **PrestaShop**
1.7.7-2-7

 **Plesk Hosting Stack on Ubuntu**
18.0.34

 **cPanel & WHM for Linux**
11.92.0.9

Word press Instance created:

Good evening!


Instances


Containers



Databases

Networking

Storage

Sort by **Date** 

 **Anish**
512 MB RAM, 1 vCPU, 20 GB SSD

Running

35.154.118.129
2406:da1a:8cb:8e00:d427:bc8a:789d:af93
Mumbai, Zone A

Creating static IP and attaching to the instance:

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

lightsail



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Anish

512 MB RAM, 1 vCPU, 20 GB SSD
WordPress

Cancel

Identify your static IP

Your Lightsail resources must have unique names.

Anish-IP

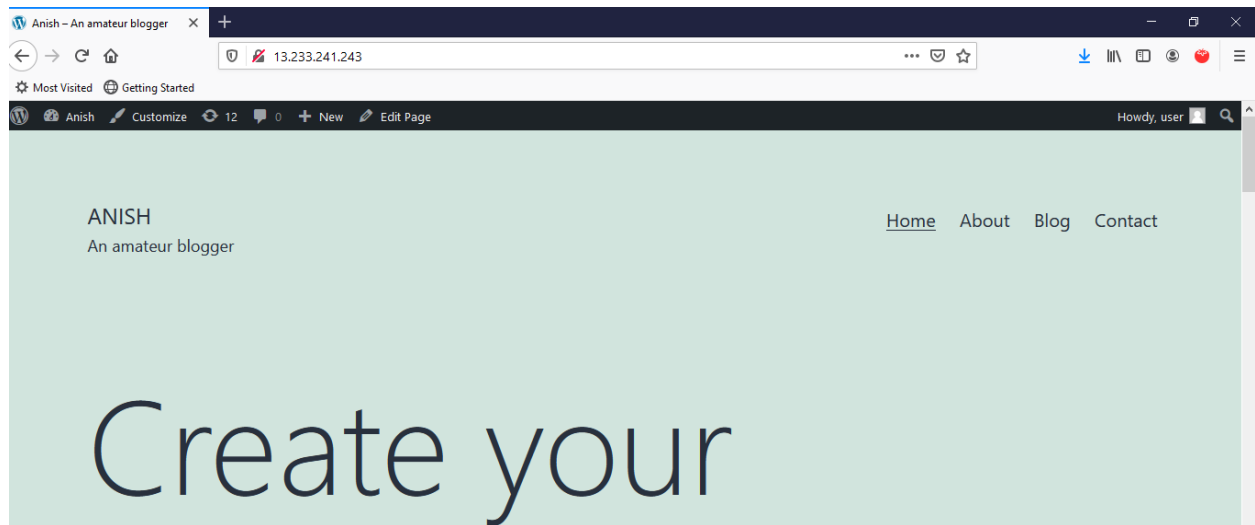
Static IP addresses are free only while attached to an instance.

You can manage five at no additional cost.

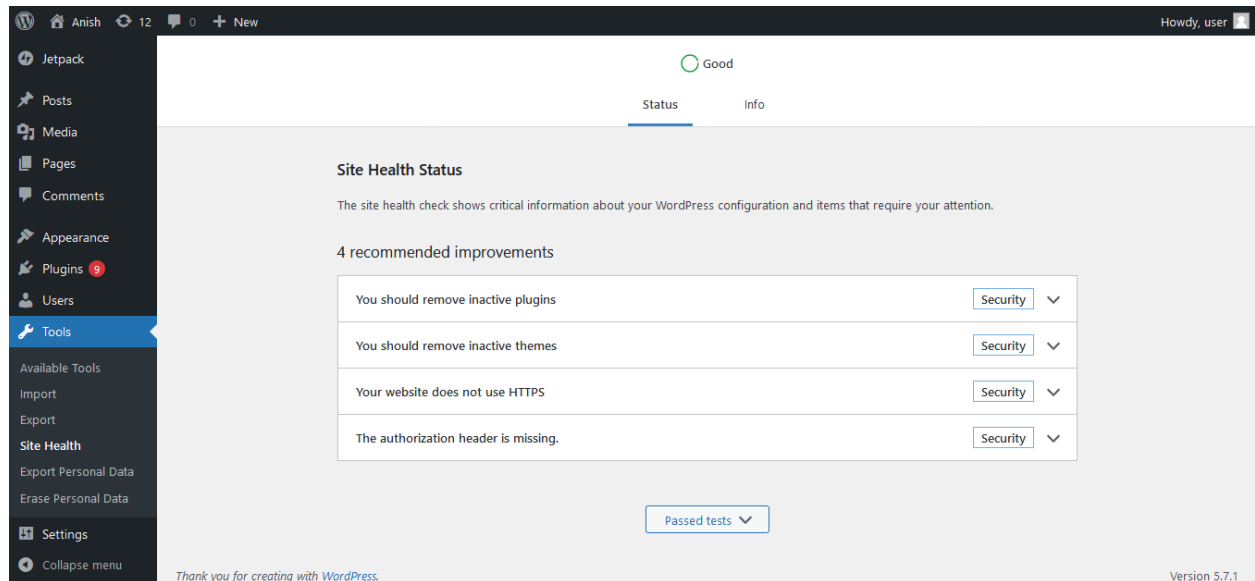
Create

Your use of AWS services is subject to the [AWS Customer Agreement](#).

Website hosted on static IP address of the hosted instance:



Word press Dashboard accessed via static IP:



Hosted Instance:

<http://13.233.241.243/2021/04/30/my-first-blog/>