SWE4002 Cloud Computing
Project Based Component

HOSTING WORDPRESS WEBSITE USING AWS

Happy Clinics

Best Site Human Care

GUIDED BY
PROF.KUMARESAN P

Team Members:

Arun kumar C-16MIS0029

Mokesh B-16MIS0052

Satheesh R-16MIS0097

Dinesh Kumar S-16MIS0462

Harish Kumar M-16MIS0492

SITE

VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SWE 4002- Cloud Computing – Project Report

1. Title: HOSTING WORDPRESS WEBSITE USING AWS

2. Abstract:

We hosted a health care website. The WordPress website is hosted using Amazon web service EC2. This website is to publish trending children medical news and tips. These news and tips are aggregated from various sites online. Here people can share their views on the blogs by commenting. It also has many way for users to contact us like through Facebook, Gmail etc.

Keywords: Hosting WordPress, Amazon web service, health care.

3. Literature Review:

Online health care: The importance of health care is immense in a society and over the past years, this sector has been evolving to produce a more efficient and computerized system. Bangladesh has also made a significant improvement in the health care system over the years. This paper presents the development of a web application for the general public of Bangladesh where they can store their own medical data and access it anytime, from anywhere. In the Online Health Care (OHC) system, users can register as patients to store their medical data in the database. The system also consists of registered doctors under the enlisted hospitals, who can give free medical advice and prescribe necessary medications to the patients when requested for an appointment. The doctors can view their patient's data and issue prescriptions. The system has been developed using Codeigniter, a PHP framework. The database has been designed using mySQL and XAMPP as the server. The system has been tested, verified and implemented. It provides an efficient way of storing information electronically, a faster communication mechanism between patients and doctors, and also ensures better security for the users.

Human Health Care System of Systems: IT IS MOST important for humans to maintain good health. Health care for normal individuals has attracted considerable attention as a novel application domain in systems engineering. To do so, it is essential to practice daily health care and medical checks. A health management system is a solution for our daily health care. A low invasive health monitoring system development is required and its cost should be low. Medical systems such as magnetic resonance imaging (MRI), X-ray computed tomography (X-ray CT) scanners, and ultrasonic systems are widely used to diagnose, treat, and manage human health during medical examinations. If we unfortunately contract a disease

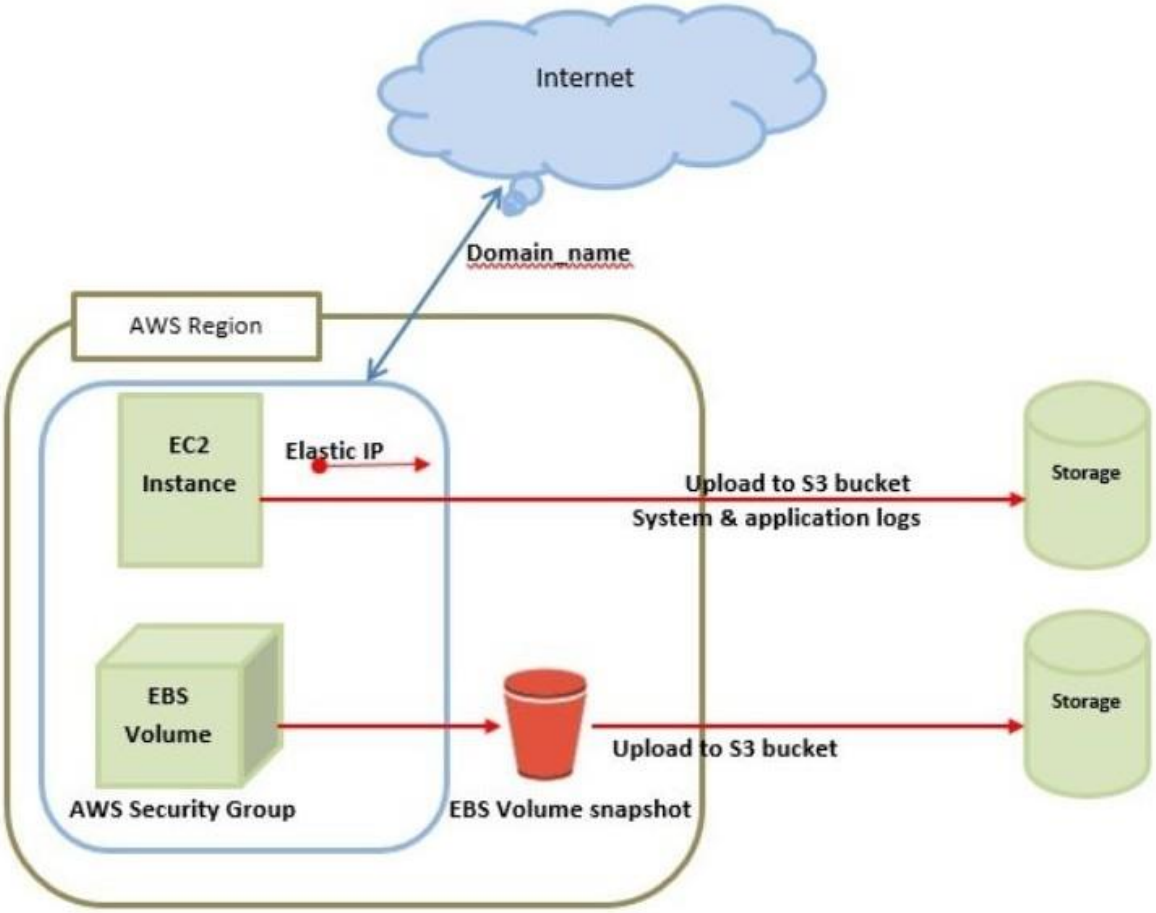
for which we must receive surgery, a surgery support system, typically medical robots, contributes to leading a safe and reliable surgery.

Exploring the cloud from passive measurements: The Amazon AWS case

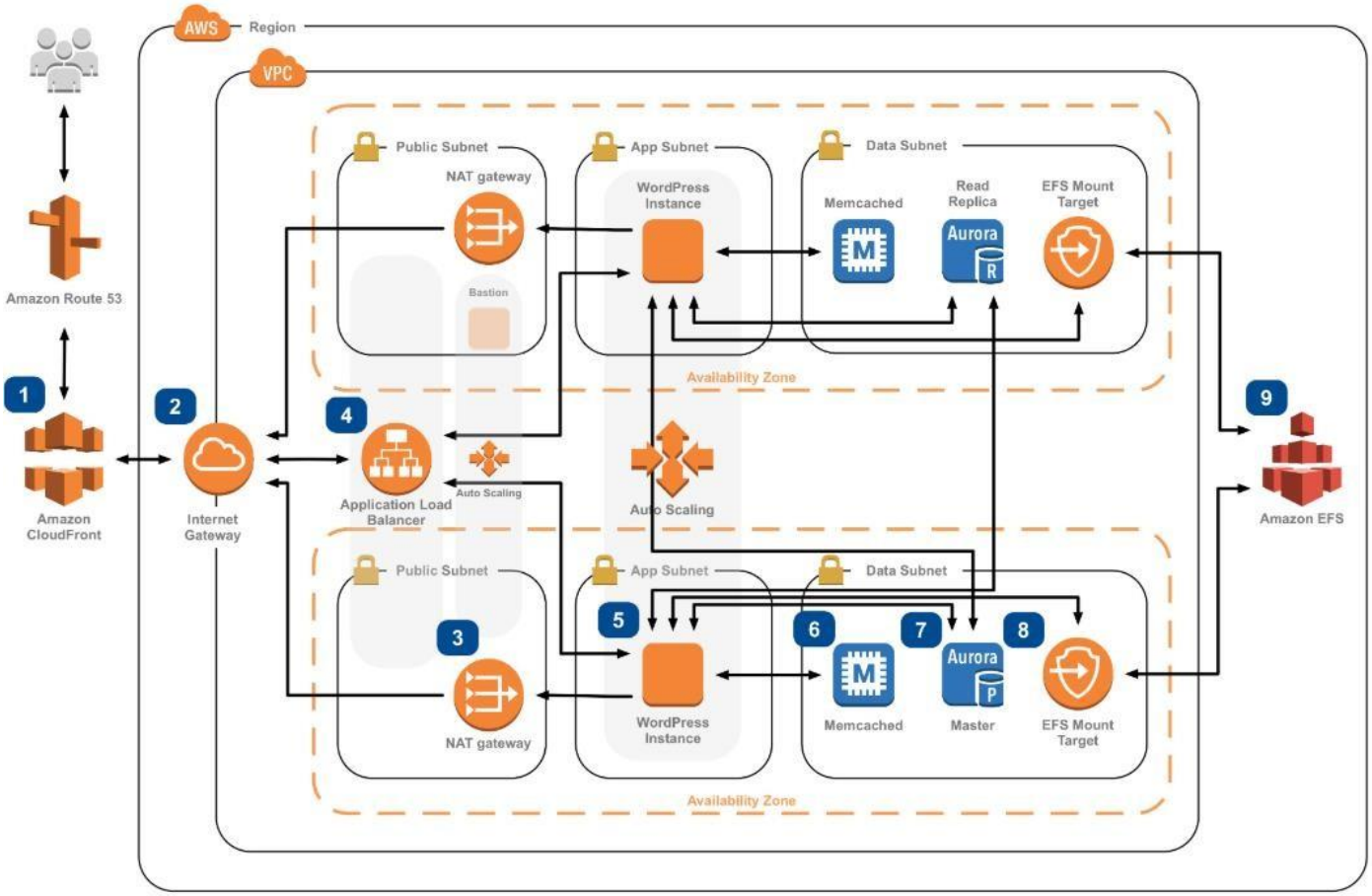
Last years witnessed the growth of cloud-based services that provide computing, storage and offloading capabilities on remote datacenters, offering the opportunity to customers to reduce costs by virtualizing hardware management. The leading position in this panorama is taken by Amazon, which offers a large gamma of cloud-based services, named Amazon Web Services (AWS). The most well-know Amazon cloud services are “Elastic Compute Cloud” (EC2), and “Simple Storage Service” (S3), with “CloudFront”, the Content Delivery Network (CDN). Following the definitions provided, AWS represents an Infrastructure Provider, and EC2 and S3 correspond to Infrastructure as Service products. In other words, through virtualization, a large set of computing resources, such as storing and processing capacities can be split, assigned, and dynamically sized to satisfy customers’ demand. Customers are represented by companies aiming at offering their services without carrying on costs and risks of building and managing their own hardware and infrastructure. Many successful companies like Dropbox, Zynga and Netflix to name a few, successfully rely on AWS. AWS has gained a large interest within the research community too. In particular, many works investigate the possibility This work was supported by the European Commission under the FP7 IP Project “An Intelligent Measurement Plane for Future Network and Application Management” (mPlane) of exploiting AWS EC2 for research purposes. Others instead focus on evaluating the performance of AWS computing and networking virtual resources. However, to the best of our knowledge, all the previous works focus on the benchmarking of AWS services and infrastructure, and they all rely on “active” probing. What is missing is the characterization of Amazon Web Services as perceived by the end-users, i.e. an evaluation of actual AWS workload and performance by means of “passive” observation of traffic.

4. Architectures:

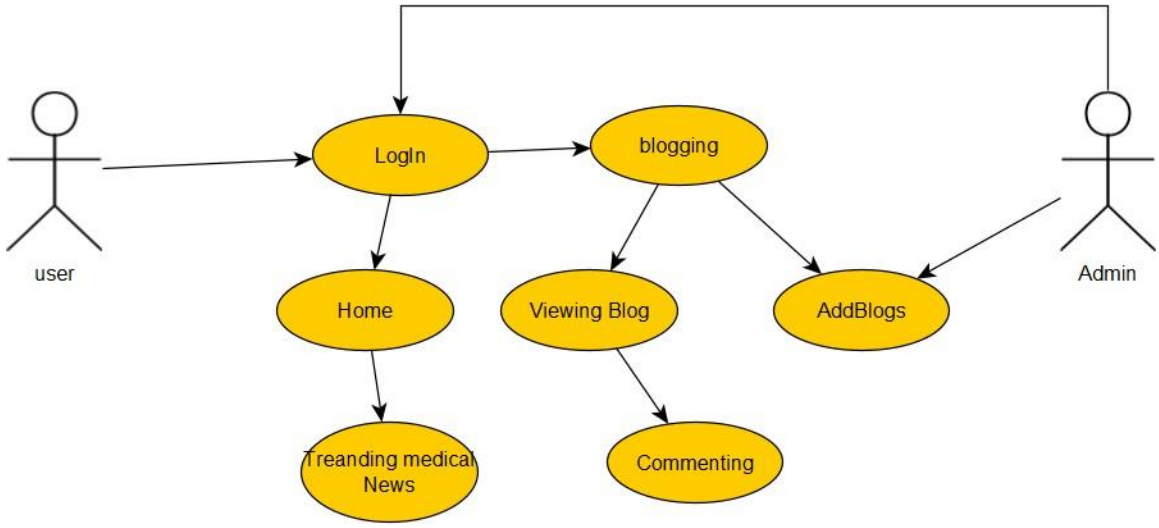
General AWS architecture:



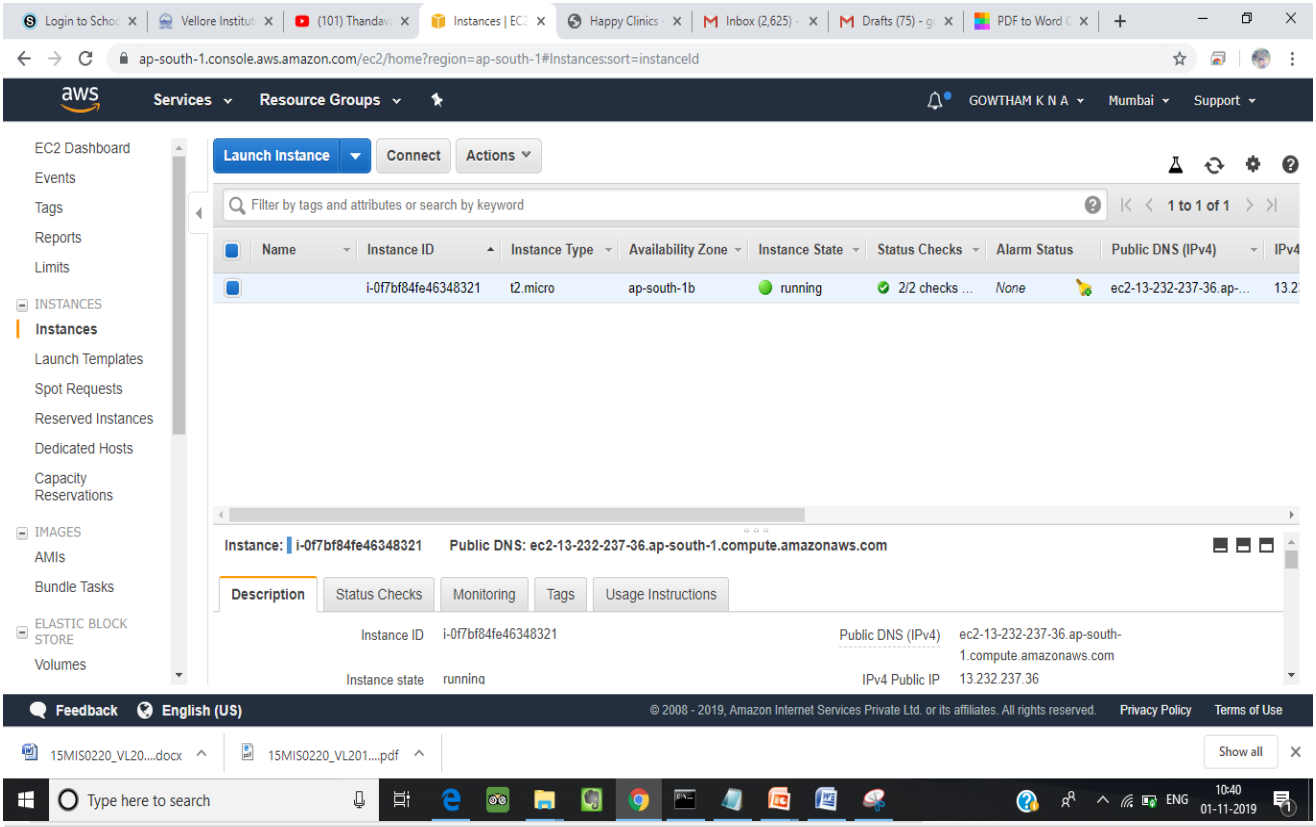
Hosting WordPress on AWS architecture:



Project architecture:



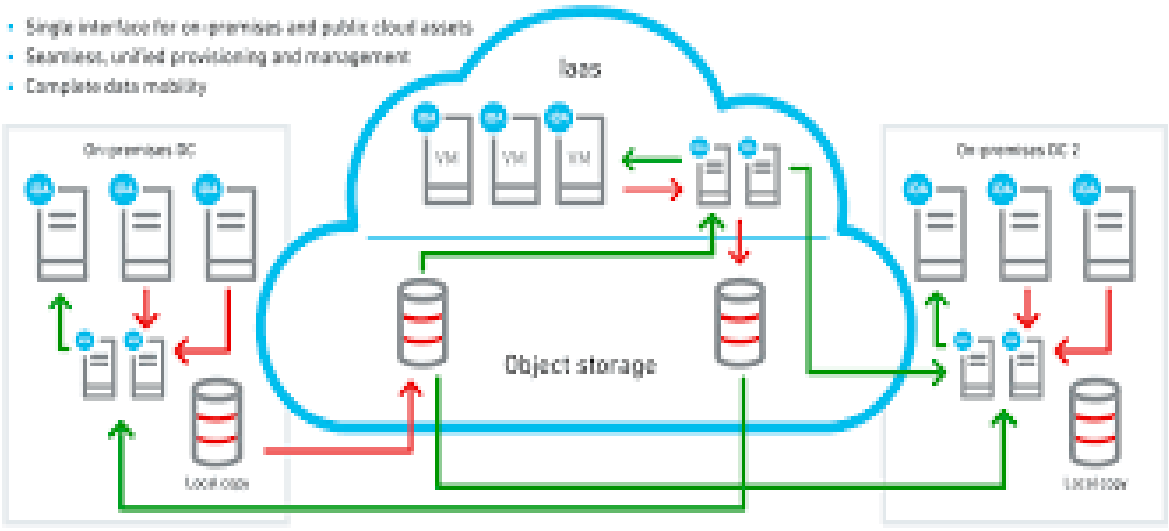
5. Cloud Environment and Resource Virtualization:



6. Cloud Deployment model:

A cloud-based application is fully deployed in the cloud, and all parts of the application run in the cloud. Applications in the cloud are either created in the cloud or are migrated from an existing infrastructure to benefit from cloud computing. Cloud-based applications can be built on low-level infrastructure pieces, or can use higher-level services that provide abstraction from the management, architecting, and scaling requirements of core infrastructure.

Public cloud:



7. Data Analysis:

Cloud storage is a critical component of cloud computing, holding the information used by applications. Big data analytics, data warehouses, Internet of Things, databases, and backup and archive applications all rely on some form of data storage architecture. Cloud storage is typically more reliable, scalable, and secure than traditional on-premises storage systems.

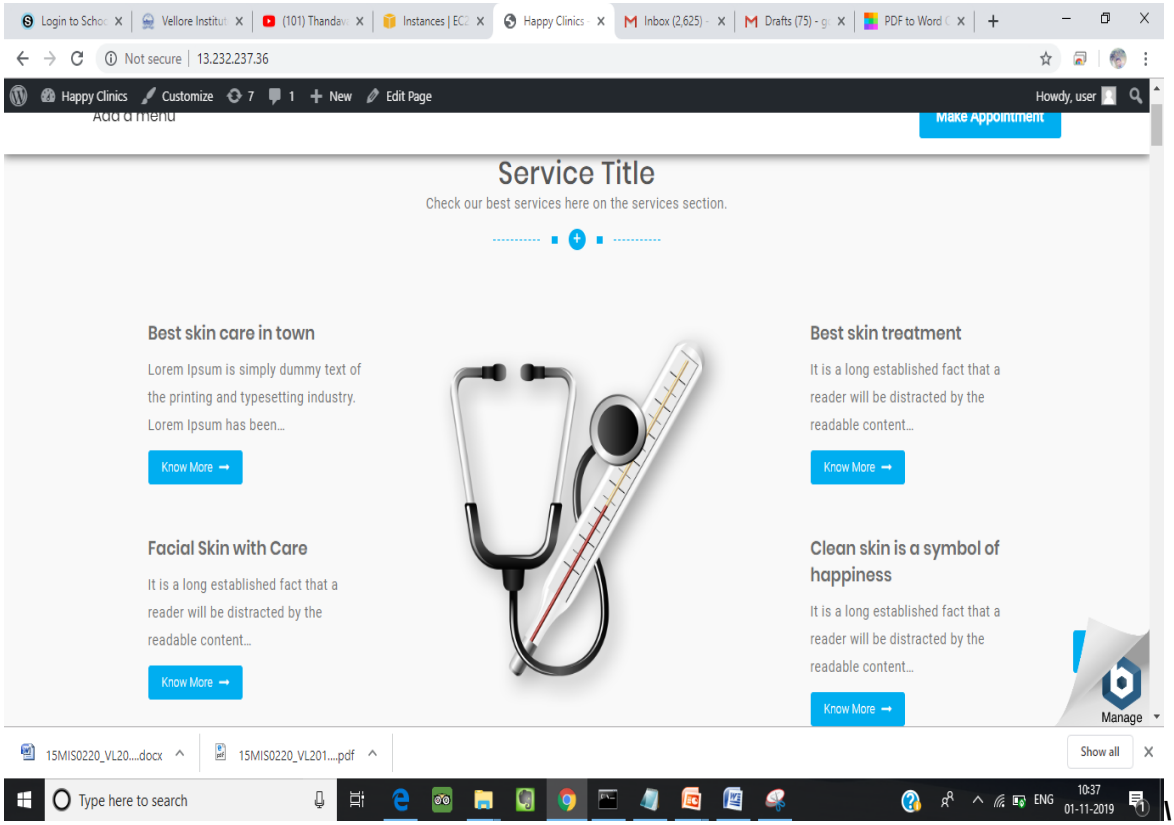
AWS offers a complete range of cloud storage services to support both application and archival compliance requirements. Select from object, file, and block storage services as well as cloud data migration options to start designing the foundation of your cloud IT environment.

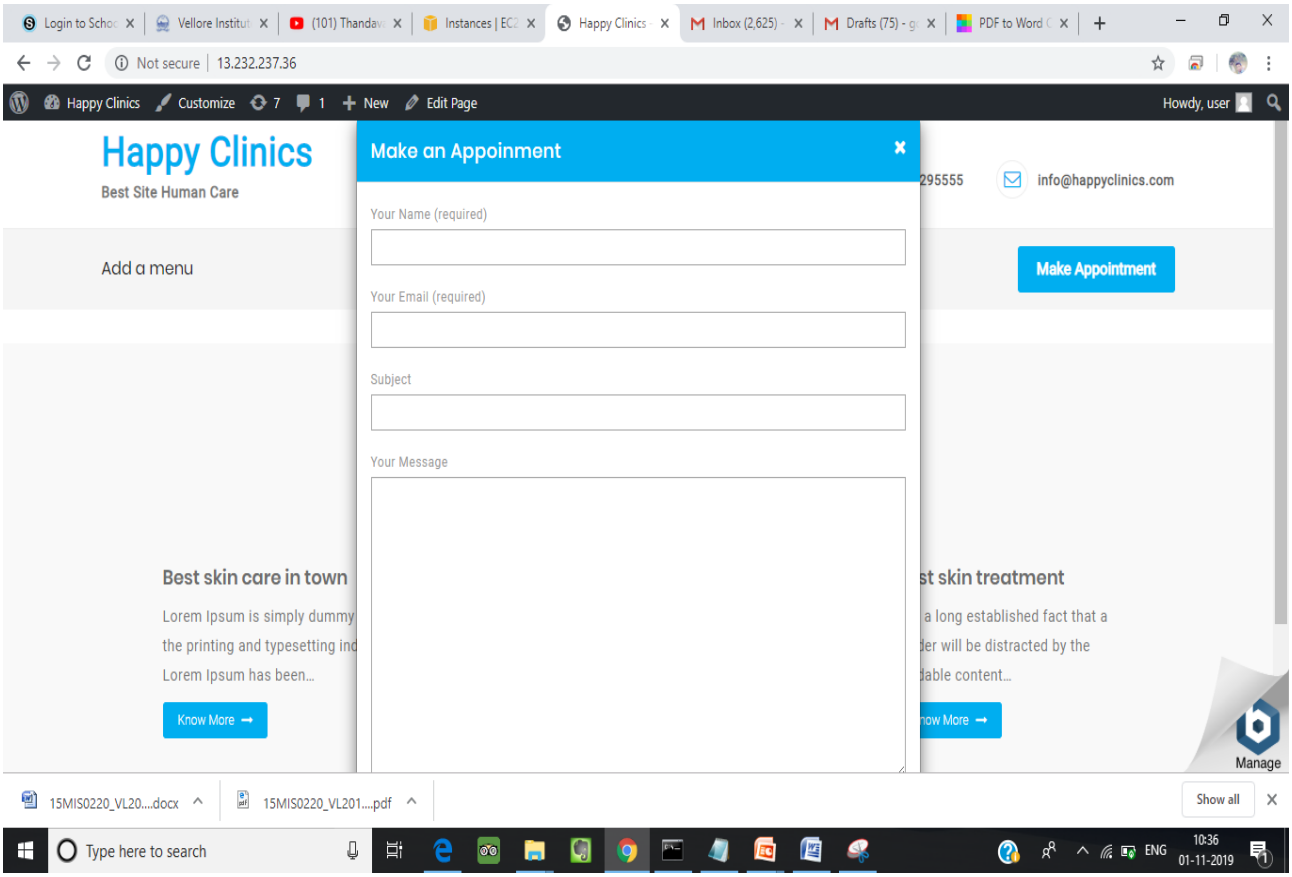
Amazon Elastic File System (Amazon EFS) provides a simple, scalable, elastic file system for Linux-based workloads for use with AWS Cloud services and on-

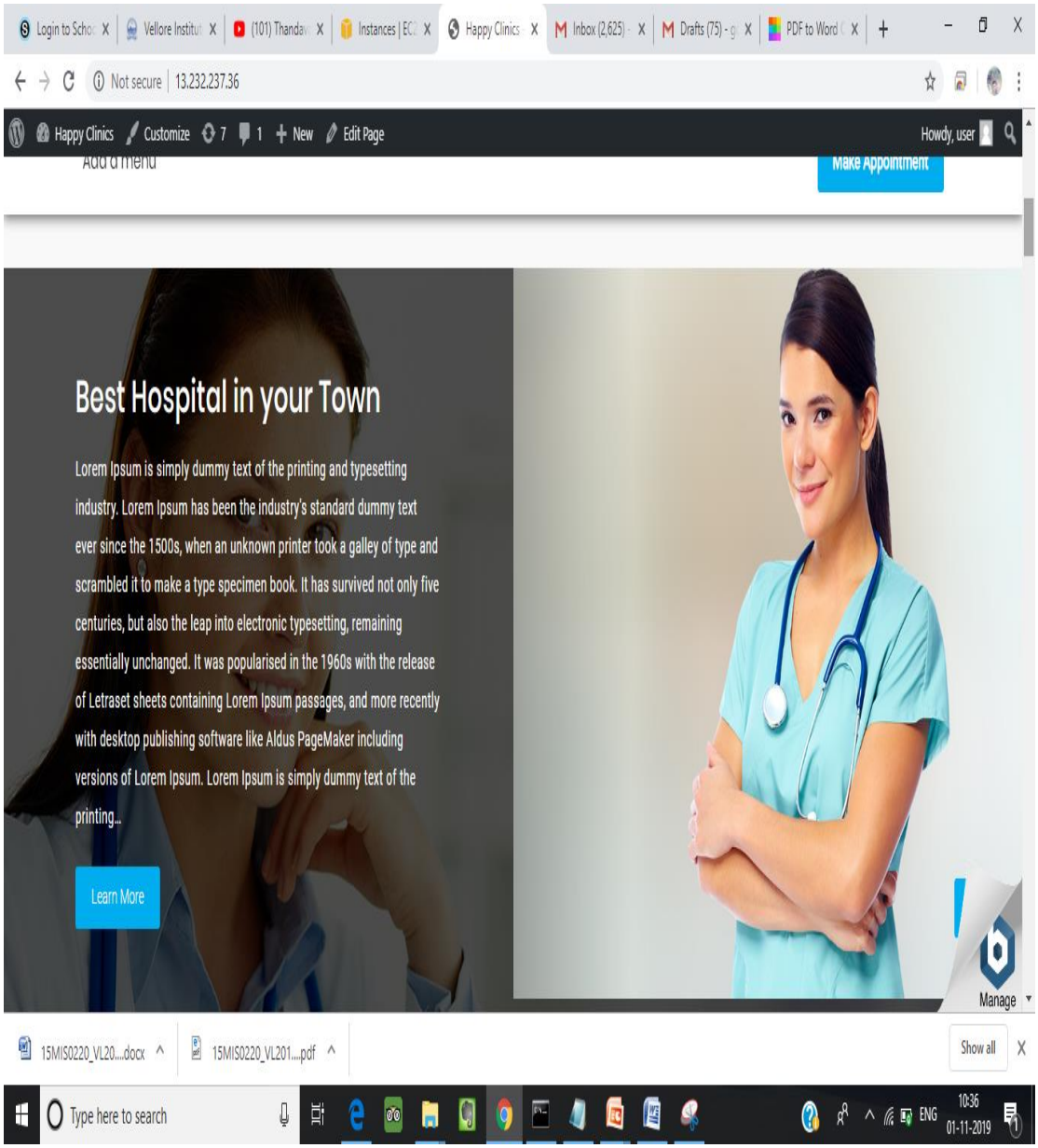
premises resources. It is built to scale on demand to petabytes without disrupting applications, growing and shrinking automatically as you add and remove files, so your applications have the storage they need – when they need it. It is designed to provide massively parallel shared access to thousands of Amazon EC2 instances, enabling your applications to achieve high levels of aggregate throughput and IOPS with consistent low latencies. Amazon EFS is well suited to support a broad spectrum of use cases from lift-and-shift enterprise applications, big data analytics, web serving and content management, application development and testing, media and entertainment workflows, database backups, and container storage.

8. Output:

Link: http://13.232.237.36/




Not secure | 13.232.237.36
Happy Clinics
Customize
New
Edit Page
Howdy, user
Happy Clinics
Best Site Human Care
Make an Appoinment
Your Name (required)
Your Email (required)
Subject
Your Message
295555
info@happyclinics.com
Add a menu
Make Appointment
Best skin care in town
Lorem Ipsum is simply dummy
the printing and typesetting ind
Lorem Ipsum has been...
Know More
st skin treatment
a long established fact that a
der will be distracted by the
dable content...
Manage
15MIS0220_VL20....docx
15MIS0220_VL201....pdf
Show all
Type here to search
ENG
10:36
01-11-2019


Not secure | 13.232.237.36
Happy Clinics
Customize
New
Edit Page
Howdy, user
Make Appointment
Best Hospital in your Town
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum. Lorem Ipsum is simply dummy text of the printing...
Learn More
Manage
15MIS0220_VL20....docx
15MIS0220_VL201....pdf
Show all
Type here to search
ENG
10:36
01-11-2019

9. Reference:

https://aws.amazon.com/architecture/

[1] L. M. Vaquero, L. Rodero-Merino, J. Caceres, and M. Lindner, "A Break in the Clouds: Towards a Cloud Definition," SIGCOMM Comput. Commun. Rev., vol. 39, no. 1, pp. 50–55, Dec. 2008.

[2] E. Walker, "Benchmarking Amazon EC2 for High-Performance Scientic Computing," USENIX ;login: Magazine, October 2008.

[3] E. Deelman, G. Singh, M. Livny, B. Berriman, and J. Good, "The Cost of Doing Science on the Cloud: The Montage Example," in SC, Austin, TX, November 2008, pp. 1 –12.