SWE4002

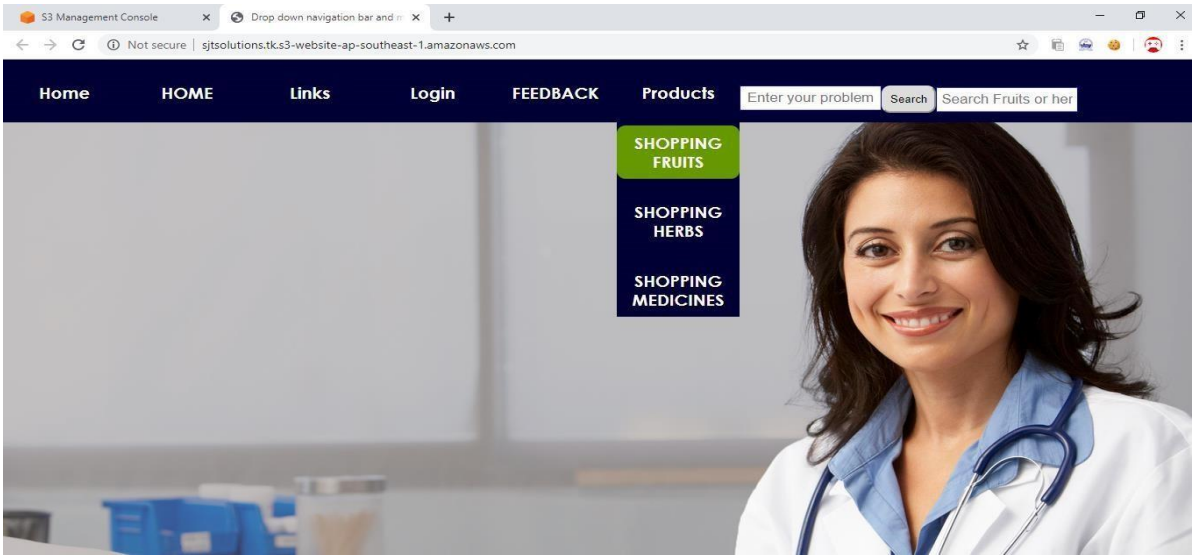
Cloud Computing Project

Title: HOST A STATIC WEBSITE BY USING AWS

ONLINE MEDICAL SHOPPING

Video Link: https://vimeo.com/426750726

Password: 1234



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SITE

SWE 4002- Cloud Computing – Project Report

HOST A STATIC WEBSITE BY USING AWS

Abstract:

Static websites can be delivered to web browsers on desktops, tablets, or mobile devices. They usually consist of a mix of HTML documents, images, videos, CSS style sheets, and JavaScript files. Static doesn't have to mean boring—static sites can provide client-side interactivity as well. Using HTML5 and client-side JavaScript technologies such as jQuery, AngularJS, React, and Backbone, you can deliver rich user experiences that are engaging and interactive

Static websites load quickly since content is delivered as-is and can be cached by a content delivery network. The web server doesn't need to perform any application logic or database queries. They're also relatively inexpensive to develop and host. However, maintaining large static websites can be cumbersome without the aid of automated tools, and static websites can't deliver personalized information. Static websites are most suitable when the content is infrequently updated. After the content evolves in complexity or needs to be frequently updated, personalized, or dynamically generated, it's best to consider a dynamic website architecture.

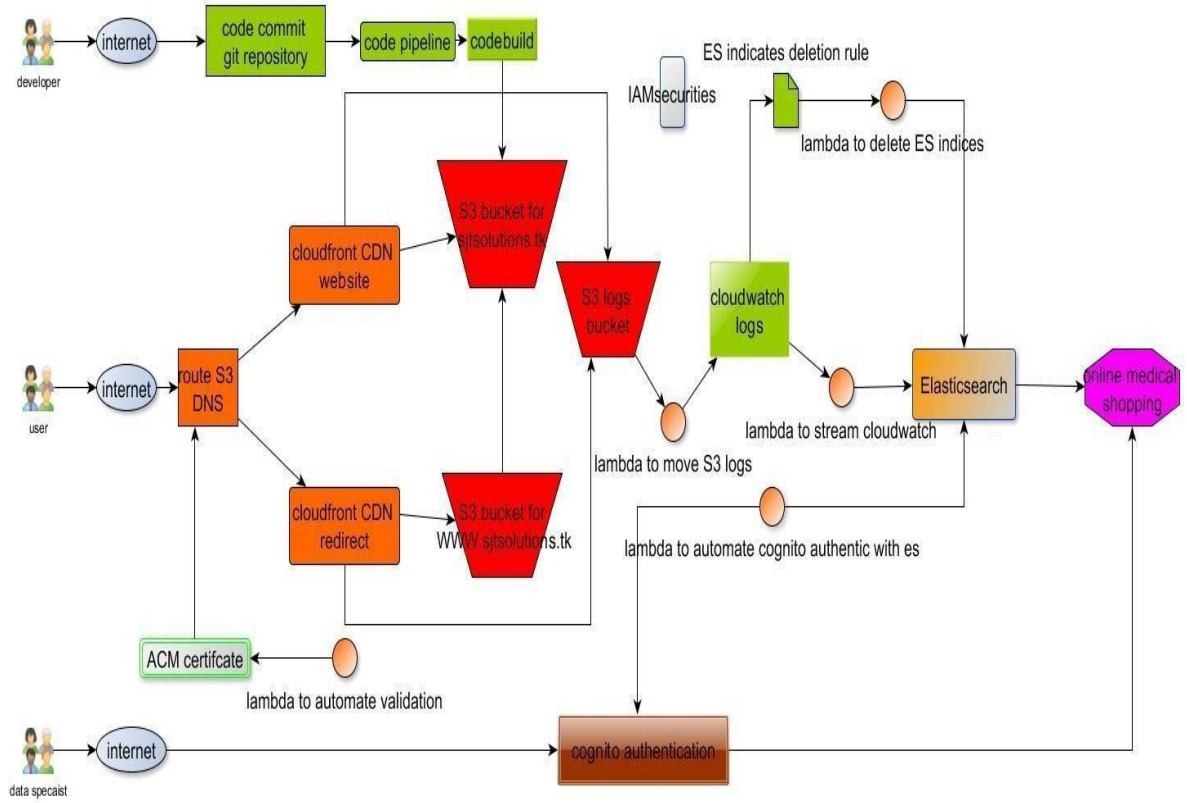
Keywords : S3, Iaas , Para Virtualization

Literature Review

Title	Author	Literature Review
Storage Options in the AWS Cloud	Joseph Baron, Sanjay Kotecha	Amazon Simple Storage Service (Amazon S3) is storage for the Internet. It's a simple storage service that offers software developers a highly-scalable, reliable, and low-latency data storage infrastructure at very low costs. Amazon S3 provides a simple web services interface that can be used to store and retrieve any amount of data, at any time, from within Amazon Elastic Compute Cloud (Amazon EC2) or from anywhere on the web. You can write, read, and delete objects containing from 1 byte to 5 terabytes of data each. The number of objects you can store in an Amazon S3 bucket is virtually unlimited. Amazon S3 is also highly secure, supporting encryption at rest, and providing multiple mechanisms to provide fine-grained control of access to Amazon S3 resources. Amazon S3 is also highly scalable, allowing concurrent read or write access to Amazon S3 data by many separate clients or application threads. Finally, Amazon S3 provides data lifecycle

		management capabilities, allowing users to define rules to automatically archive Amazon S3 data to Amazon Glacier, or to delete data at end of life.
Hands-on Simple Storage Service (S3)	Sunil Gulabani	In recent years, IT professionals have frequently used the term cloud computing to refer to the practice of using remote serviers to store, manage, and process data. However, the most common term is Amazon Web Services (AWS). AWS has changed the working methodology of the application/system by providing various services that can be integrated into our applications and systems. It allows developers to focus on the core business logic while services such as infrastructure management, database administration, server management, high availability, cost minimization, and so on, are being handled by AWS.
Static and Dynamic Storage Options in AWS	Jason Nadon	The main components need to plan for is static content and application file storage. In this chapter, you'll go over your options for using AWS S3 for storing your static and dynamic files. You'll also learn about EC2 EBS (Elastic Block Storage) and how it can be attached to your virtual server instance but can persist even if the virtual service instance goes away. Having data on EC2 EBS storage enables some storage and server management, such as being able to move storage between virtual server instances and creating snapshot backups of your website data.

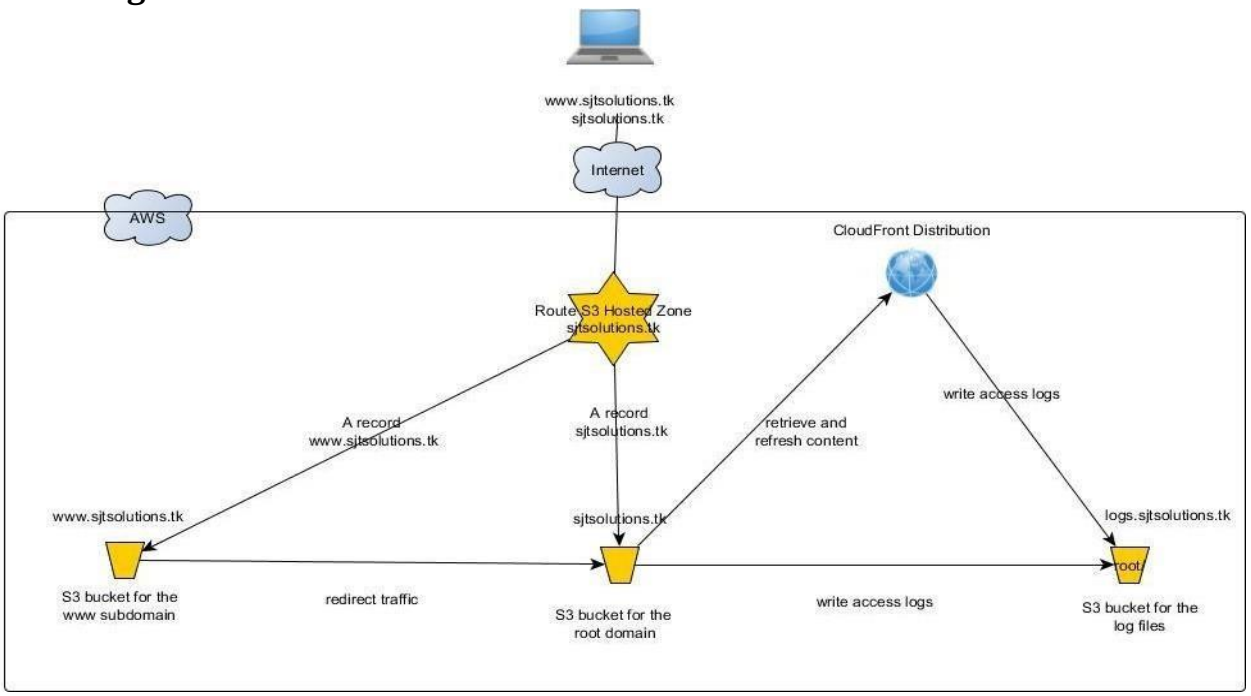
Architecture of Project



Cloud service model Infrastructure as a service

- The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications.
- The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).
- Infrastructure as a service (IaaS) is a service model that delivers computer infrastructureon an outsourced basis to support enterprise operations. Typically, IaaS provides hardware, storage, servers and data center space or network component.

Block diagram



Description

Our project is supported for real time applications here we are hosted online medical shopping website by using AWS S3 bucket , in this project we are creating two buckets one is for root domain and another bucket for sub domain so here we are uploading our website files(code) in root domain .

In this project we are hosting this project into real world and this project will be open for all(public access) and then we are creating URL for this website by using freenom , it is open source for creating free and paid URLS for websites. This project will be helpful to people who needs medicines ,herbs and fruits.This website will be accepting online orders depending upon products availability we are delivering into the customers.

One can access the website by using the

URL: - http://sjtsolutions.tk.s3-website-ap-southeast-1.amazonaws.com/

and can buy the health products online

Cloud Environment

One can host a static website on Amazon S3. On a static website, individual webpages include static content. They might also contain client-side scripts. By contrast, a dynamic website relies on server-side processing, including server-side scripts such as PHP, JSP, or ASP.NET.

Amazon S3 does not support server-side scripting. AWS also has resources for hosting dynamic websites. To learn more about website hosting on AWS

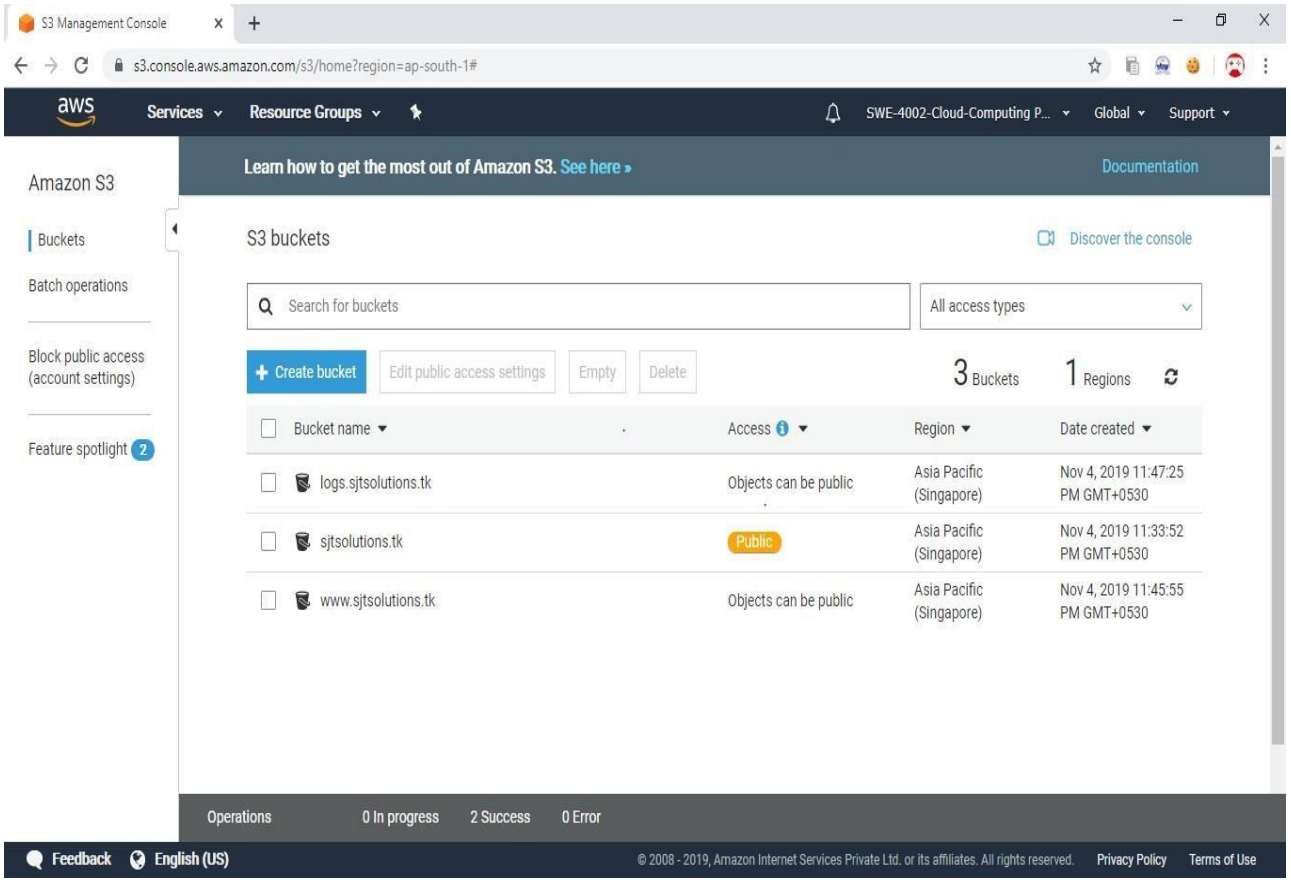
To host a static website, you configure an Amazon S3 bucket for website hosting, and then upload your website content to the bucket. This bucket must have public read access. It is intentional that everyone in the world will have read access to this bucket. To learn how to configure public read access for your bucket, see Permissions Required for Website Access. The website is then available at the AWS Region-specific website endpoint of the bucket, which is in one of the following formats.

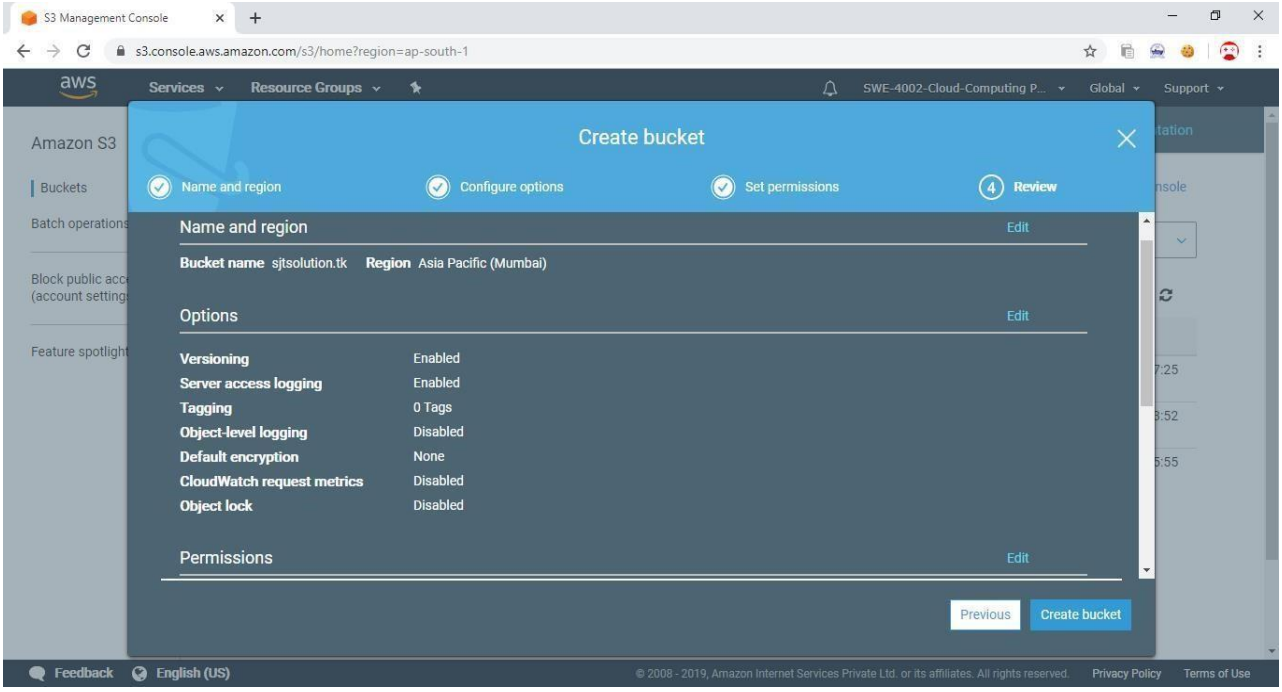
S3 Bucket Policy

```
{
  "Version":"2012-10-17",
  "Statement":[
    {
      "Sid":"PublicRead",
      "Effect":"Allow",
      "Principal": "*",
      "Action":["s3:GetObject"],
      "Resource":["arn:aws:s3:::sjtsolutions.tk /*"] }
  ]
}
```

Using Your Own Domain

Instead of accessing the website by using an Amazon S3 website endpoint, you can use your own domain, such as sjtsolutions.tk, to serve your content. Amazon S3, along with Amazon Route 53, supports hosting a website at the root domain. For example, if you have the root domain sjtsolutions.tk and you host your website on Amazon S3, your website visitors can access the site from their browser by typing either **http://www.sjtsolutions.tk or http:// sjtsolutions.tk.**





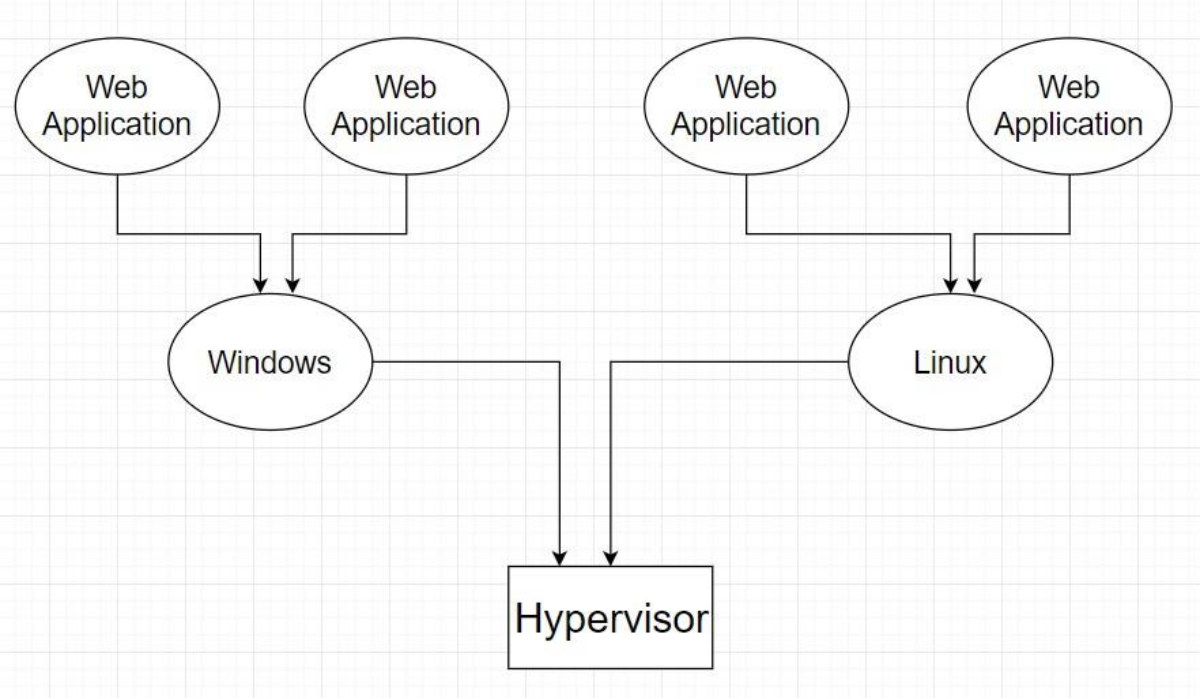
Resource Virtualization

Para Virtualization

Para virtualization is an extension of virtualization technology that ensures recompilation of a guest operating system before it is installed inside a VM. It facilitates running of different operating systems on a single set of hardware by reducing time taken to complete the operation.

Para virtual guests can run on host hardware that does not have explicit support for virtualization but they cannot take advantage of special hardware extensions such as enhanced networking of GPU processing.

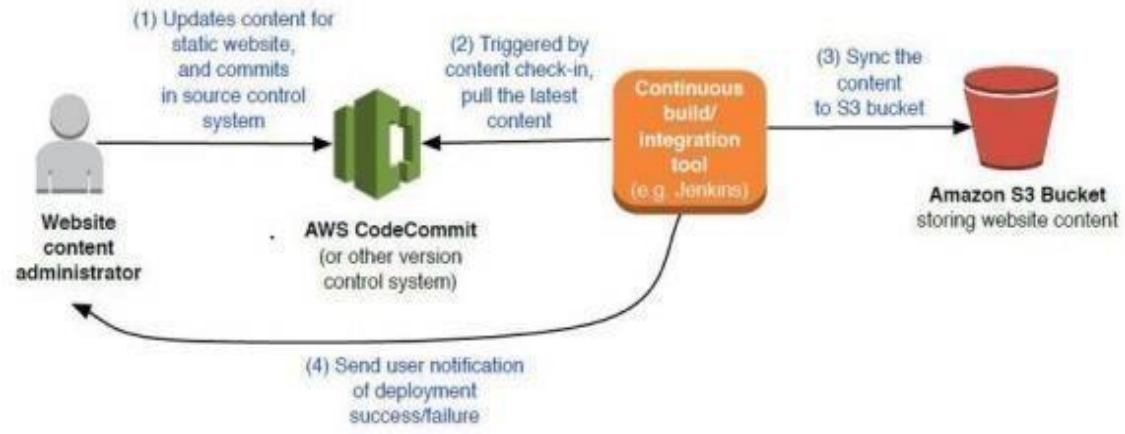
Paravirtualization enables several different operating systems to run on one set of hardware by effectively using resources such as processors and memory. In paravirtualization, the operating system is modified to work with a virtual machine

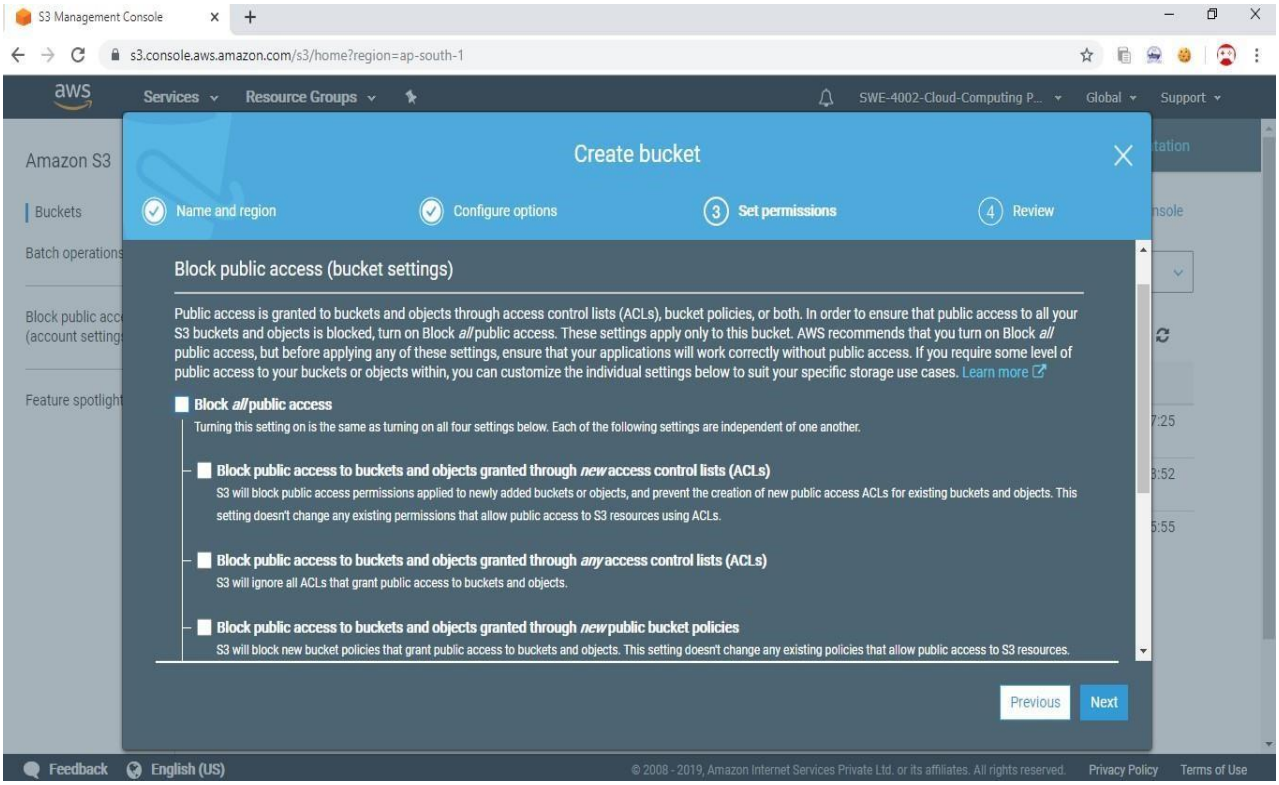


Cloud Deployment

Website content should be managed using version control software to make it possible to revert to older versions of your files. AWS offers a managed source control service called AWS Code Commit that makes it easy to host secure and private Git repositories. Regardless of which version control system your team uses, consider tying it to a continuous build/integration tool so that your website automatically updates whenever the content changes. For example, if your

team is using a Git-based repository for version control, a Git post commit hook can notify your continuous integration tool of any content updates. At that point, your continuous integration tool can perform the actual deployment to synchronize the content with Amazon S3 (using either the AWS CLI or the Amazon S3 API), and notify the user of the deployment status.





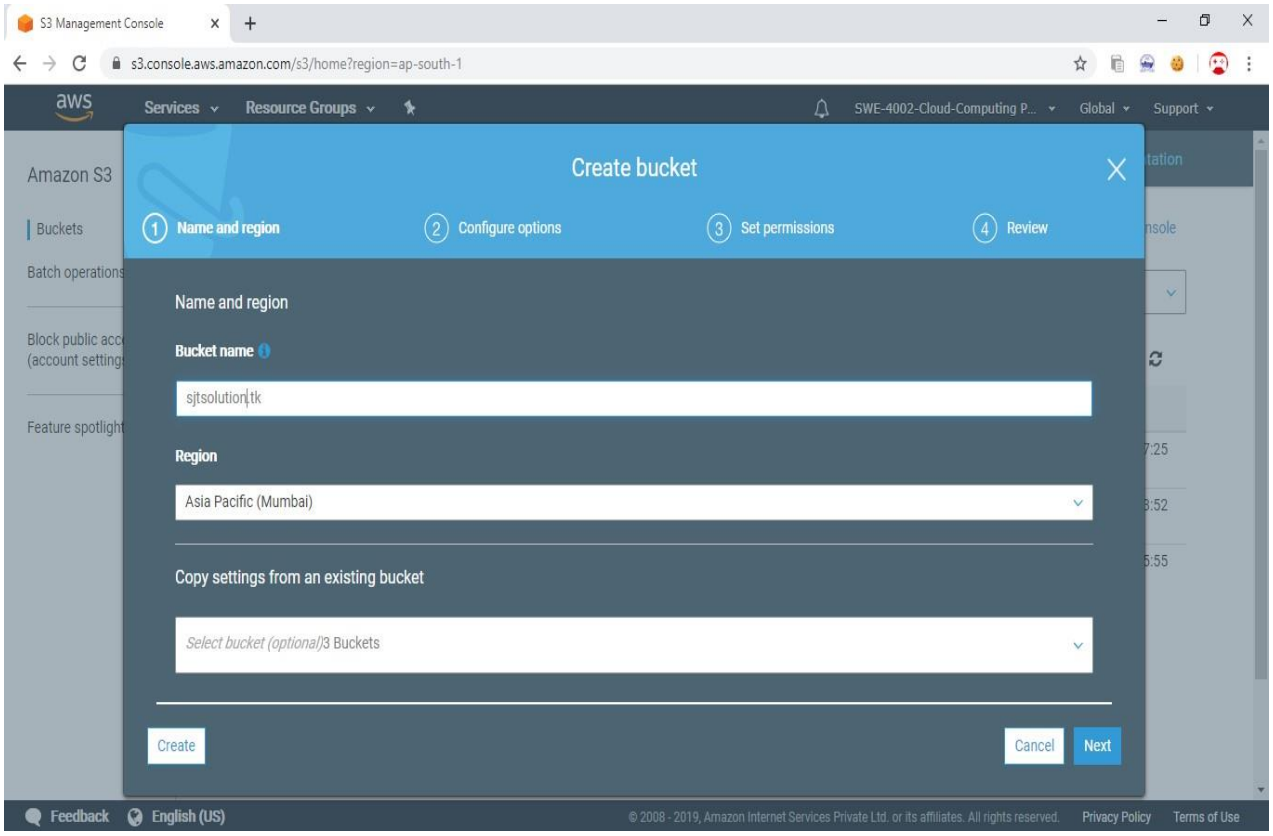
Data Analysis

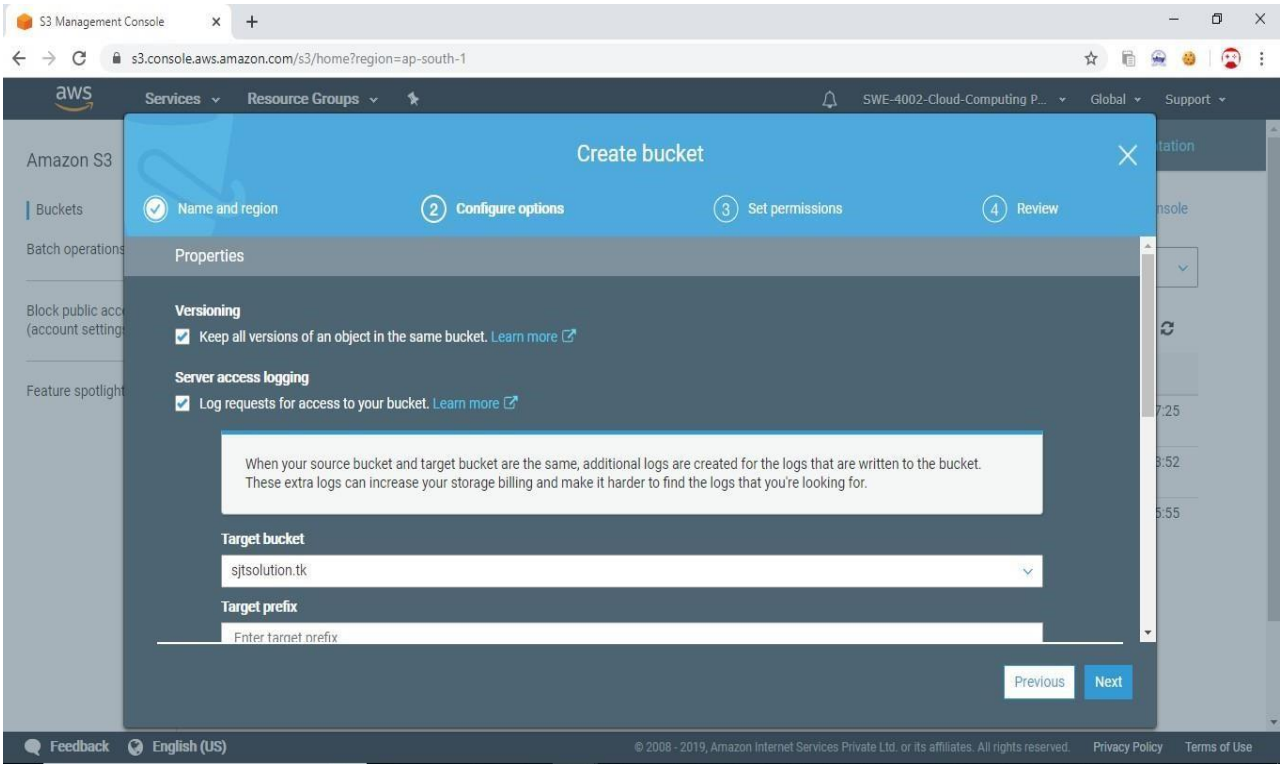
Everyone can access the link and buy medical products online. All the medicals, herbs and fruits data is uploaded in s3 bucket (cloud storage) which in turn visible to customers for buying products. Depending upon the product availability customer can buy the product. Payment can be made through online mode like debit card, credit card, net banking and cash on delivery.

Customer transactional details and order details will be stored in cloud and will be accessible to user for future use.

Output – Screenshots Creation

of bucket:




S3 Management Console
s3.console.aws.amazon.com/s3/home?region=ap-south-1
Services
Resource Groups
SWE-4002-Cloud-Computing P...
Global
Support
Amazon S3
Buckets
Batch operations
Block public acc
(account setting
Feature spotlight
Create bucket
Name and region
2 Configure options
3 Set permissions
4 Review
Properties
Versioning
Keep all versions of an object in the same bucket. Learn more
Server access logging
Log requests for access to your bucket. Learn more
When your source bucket and target bucket are the same, additional logs are created for the logs that are written to the bucket.
These extra logs can increase your storage billing and make it harder to find the logs that you're looking for.
Target bucket
sjtsolution.tk
Target prefix
Enter target prefix
Previous
Next
Feedback
English (US)
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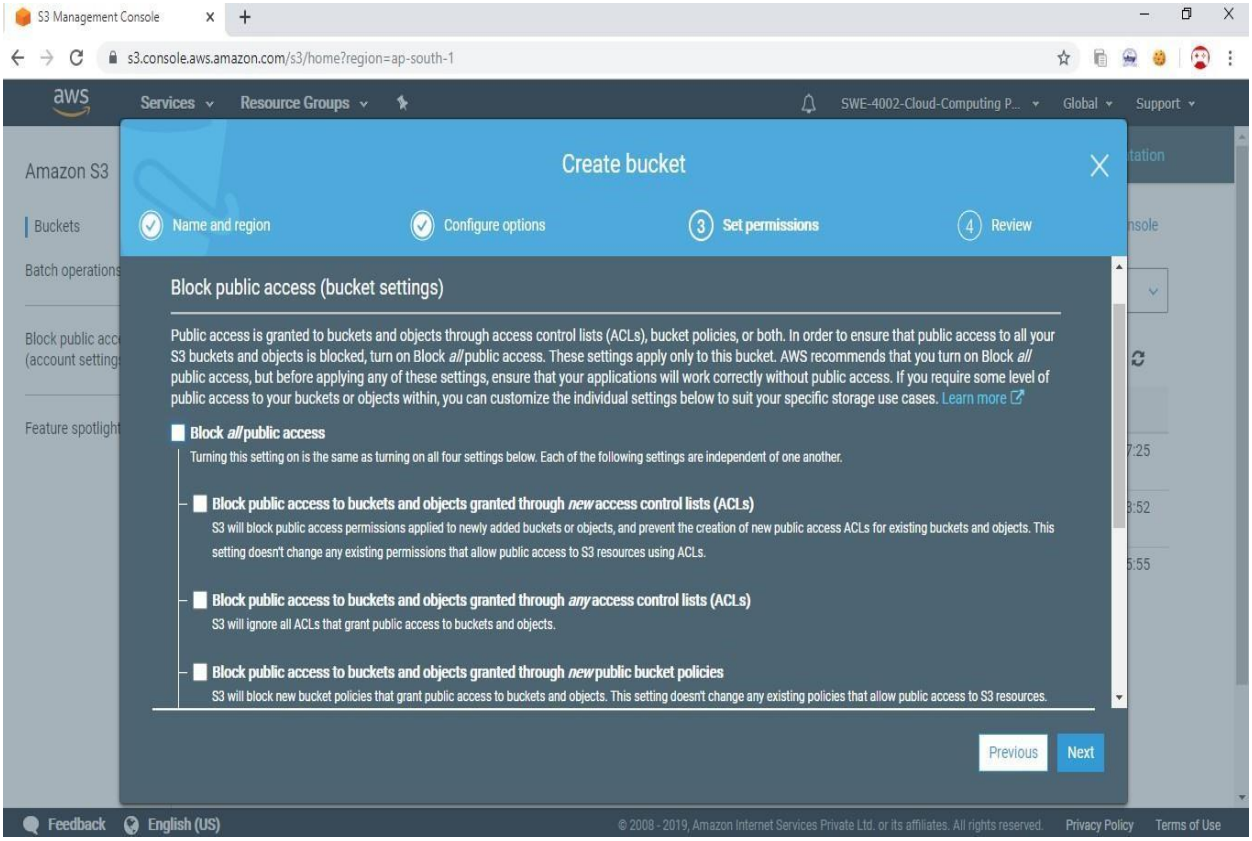
S3 Management Console
s3.console.aws.amazon.com/s3/home?region=ap-south-1
Services
Resource Groups
SWE-4002-Cloud-Computing P...
Global
Support
Amazon S3
Buckets
Batch operations
Block public acc
(account setting
Feature spotlight
Create bucket
Name and region
Configure options
3 Set permissions
4 Review
Block public access (bucket settings)
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, or both. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more
Block all public access
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
Block public access to buckets and objects granted through new access control lists (ACLs)
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
Block public access to buckets and objects granted through any access control lists (ACLs)
S3 will ignore all ACLs that grant public access to buckets and objects.
Block public access to buckets and objects granted through new public bucket policies
S3 will block new bucket policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
Previous
Next
Feedback
English (US)
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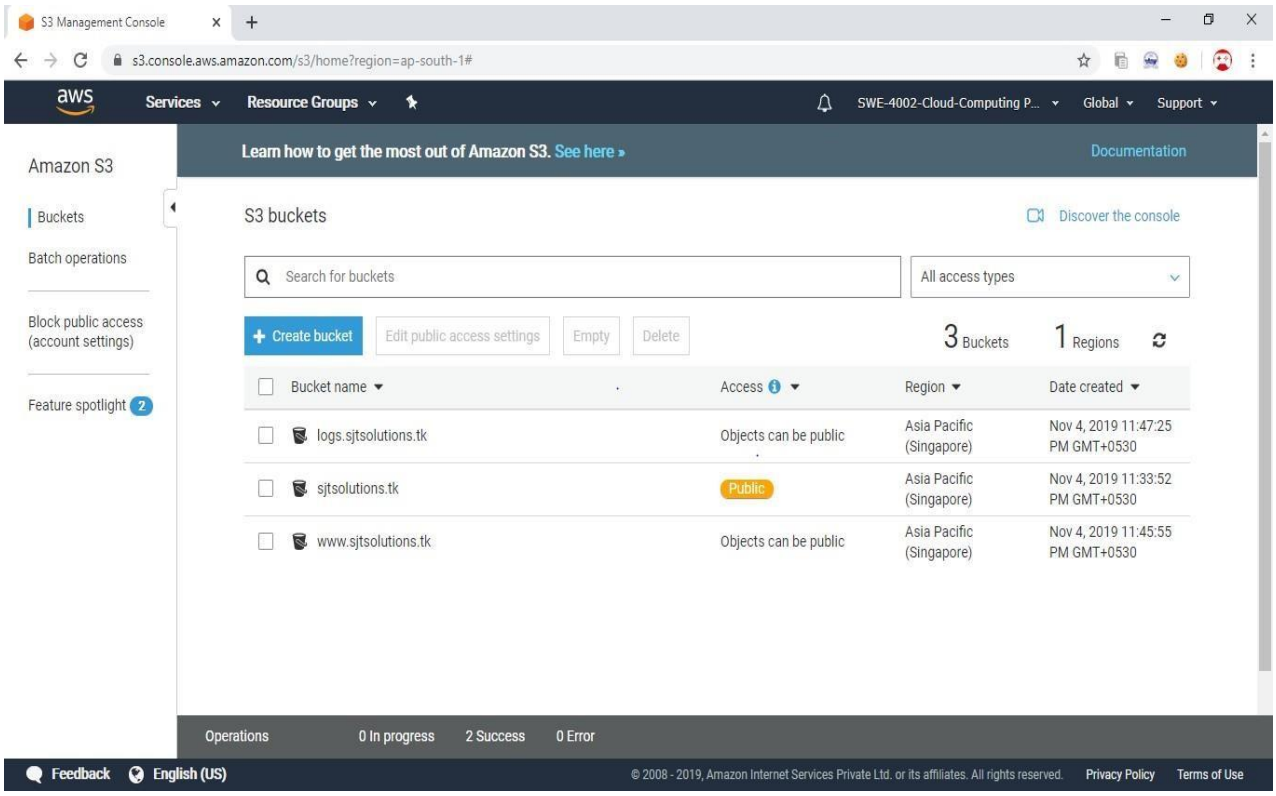
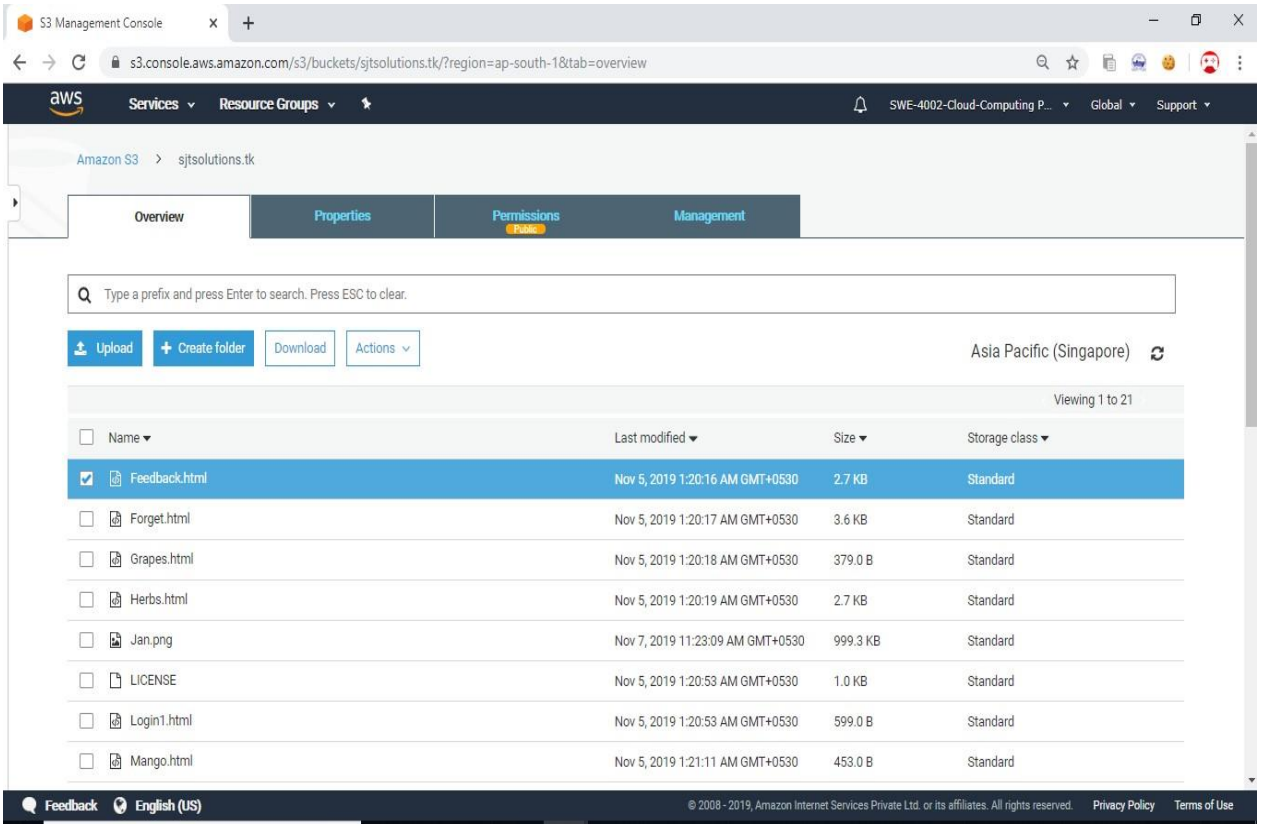
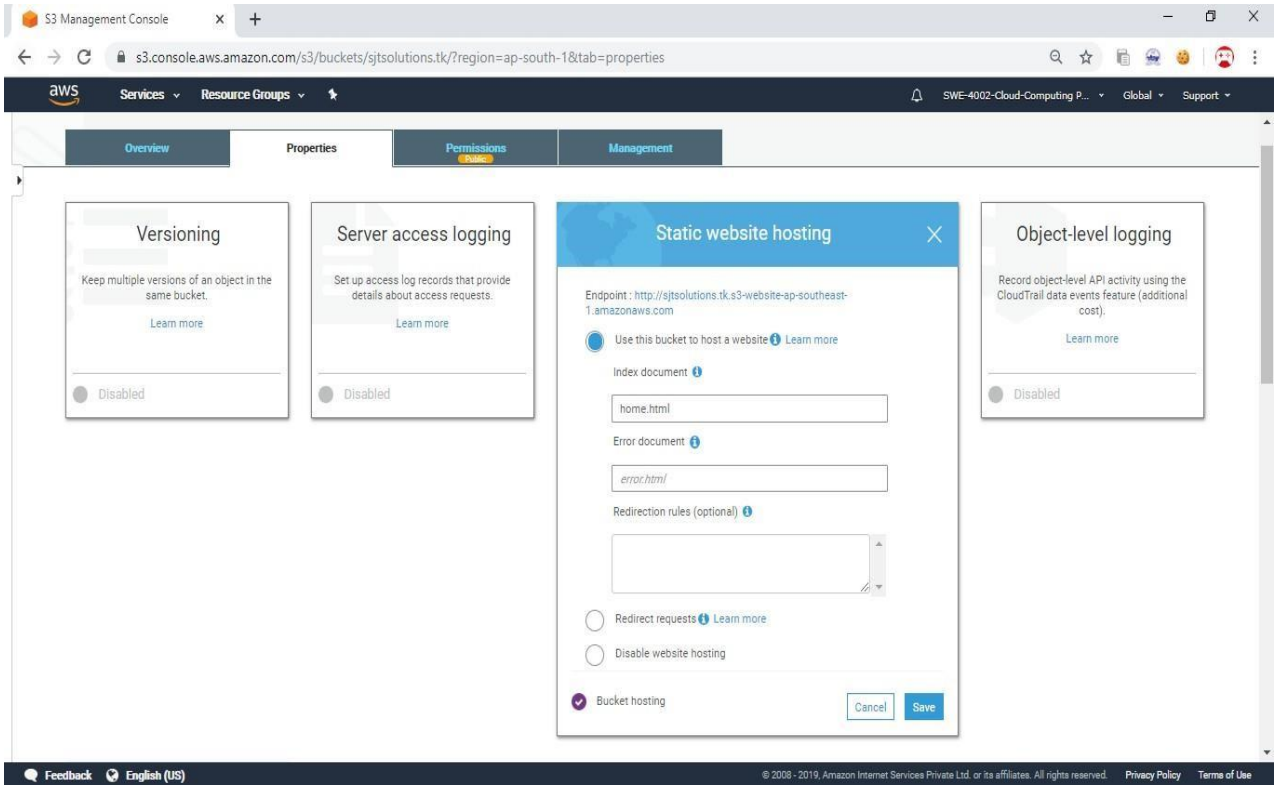
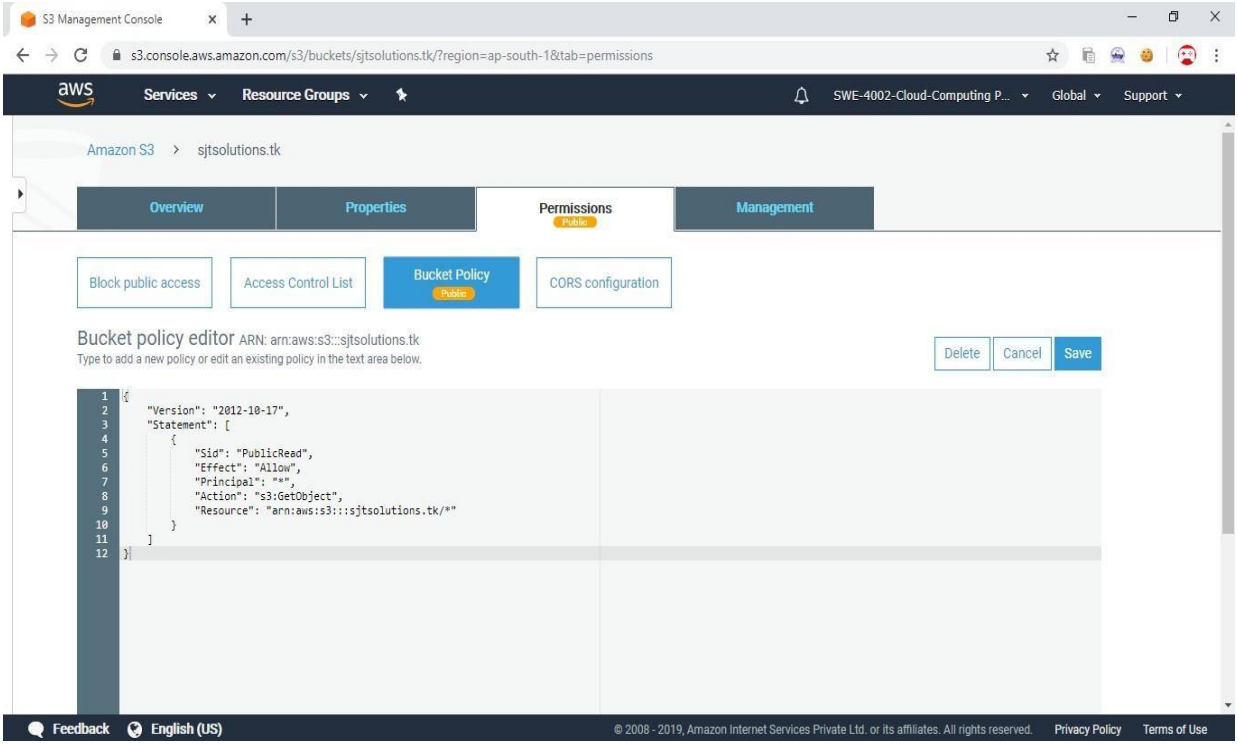


Upload of files:



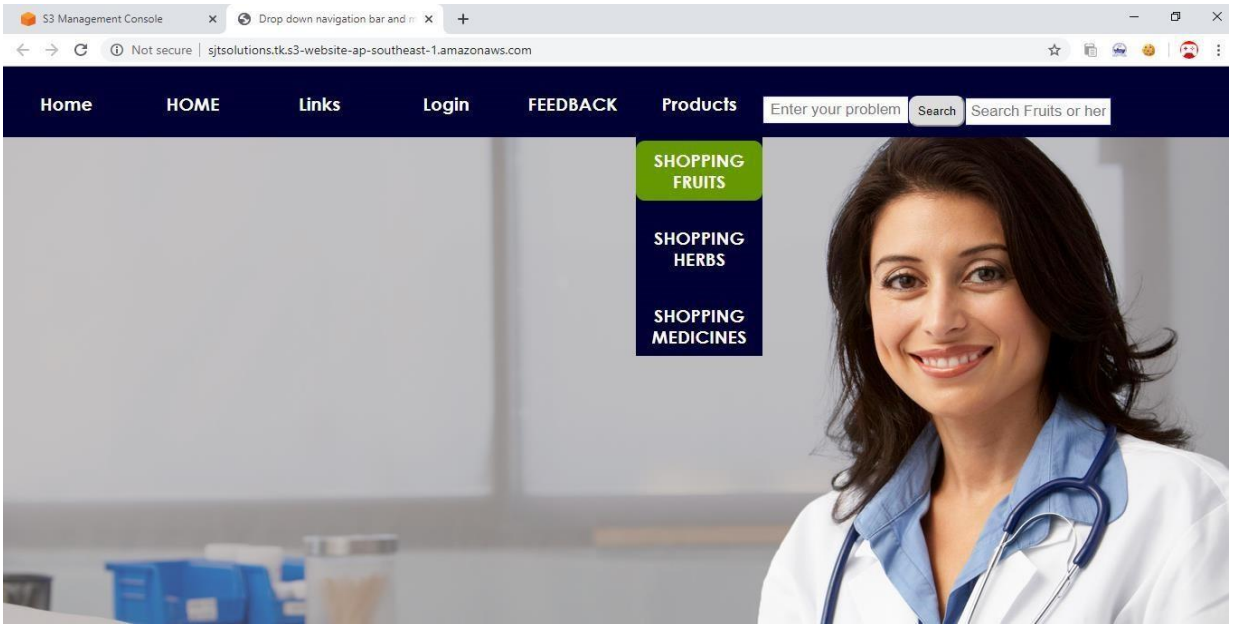


Bucket Policy:

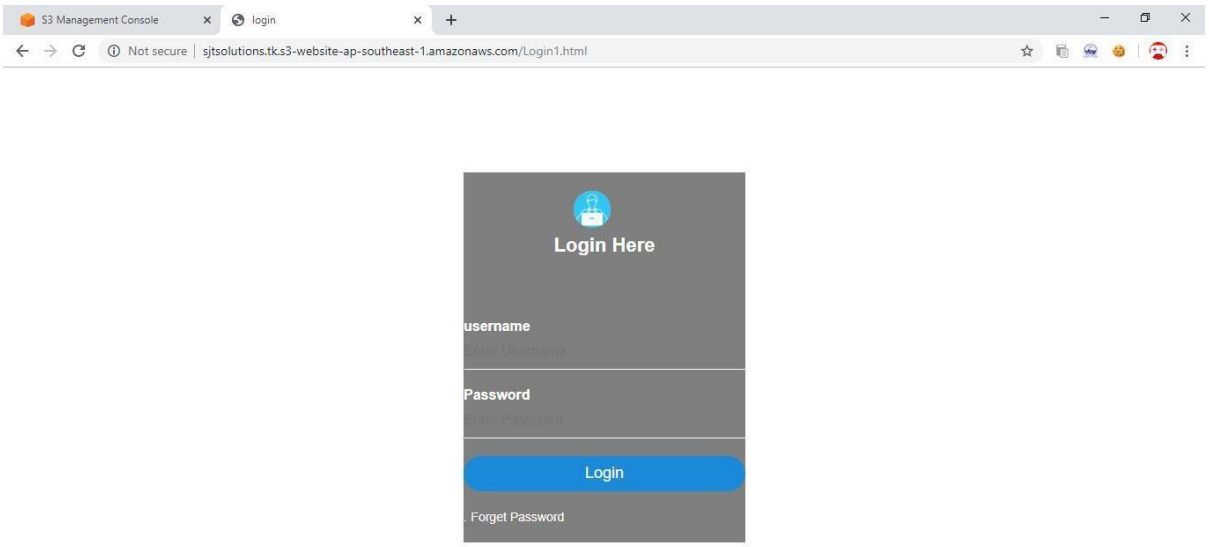


Online Medical Shopping

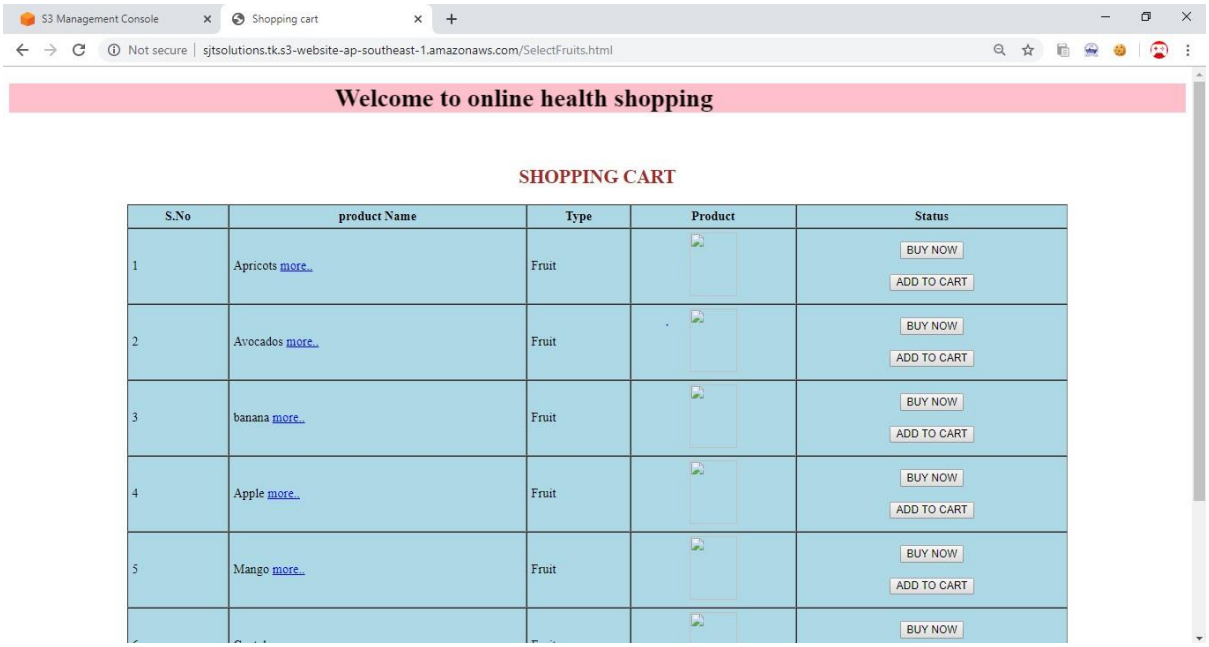
Home Page:



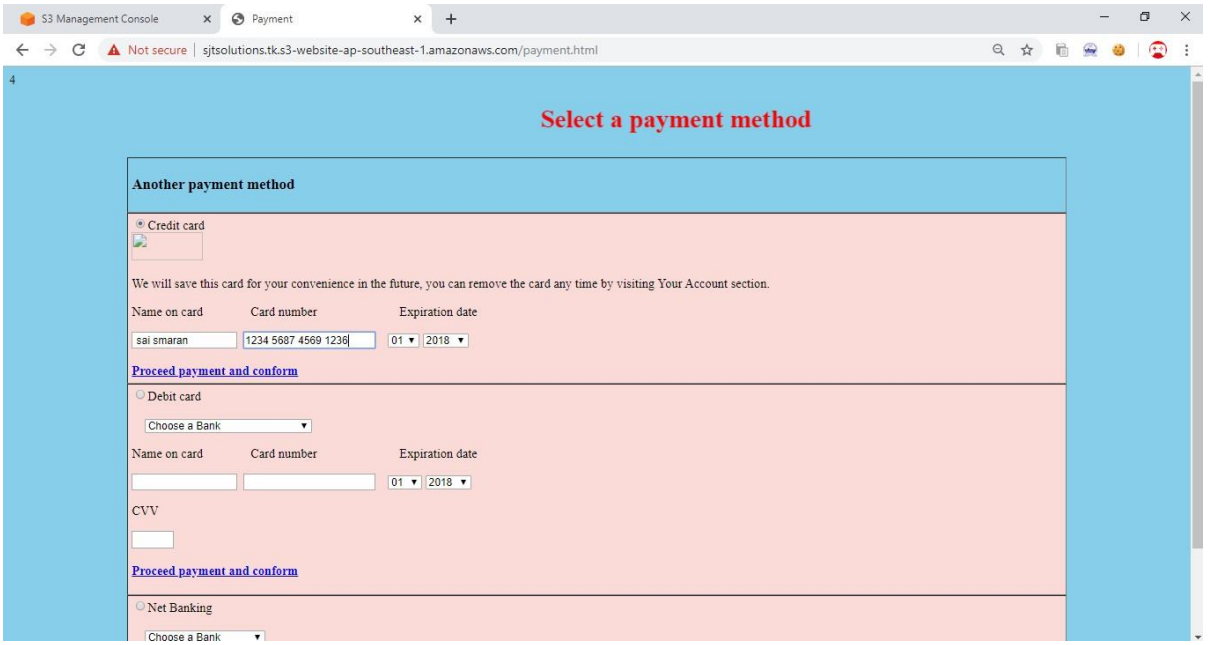
Login Page:



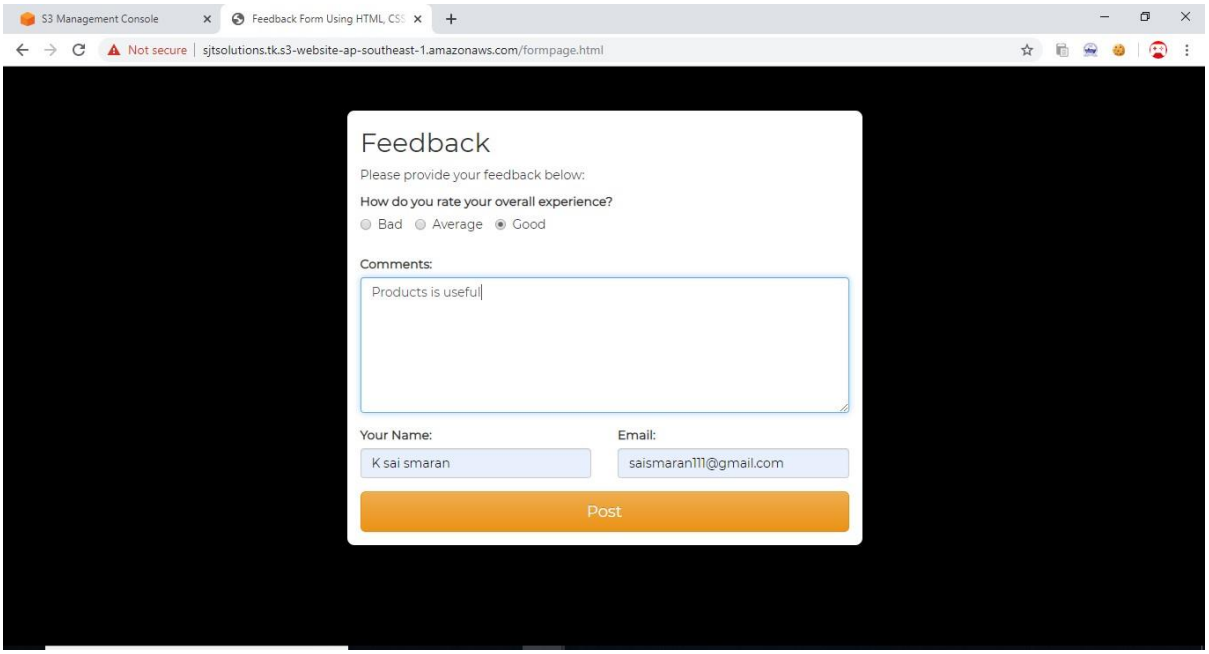
Products:



Payment:



Feedback:



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