

Task-2

Static E-commerce Website Hosting using Google Cloud Storage

Objective:-

To create and deploy a simple e-commerce static website (HTML/CSS) on Google Cloud Storage (GCS) using public bucket hosting.

Tools & Technologies Used:-

- Google Cloud Platform (GCP)
- Google Cloud SDK (gcloud, gsutil)
- HTML/CSS
- Linux Terminal (Ubuntu)
- Cloud Storage (GCS)

Project Structure:-

my-site/

```
|— index.html    ← Home page
|— 404.html     ← Custom error page
|— style.css    ← Basic styles
```

Steps:-

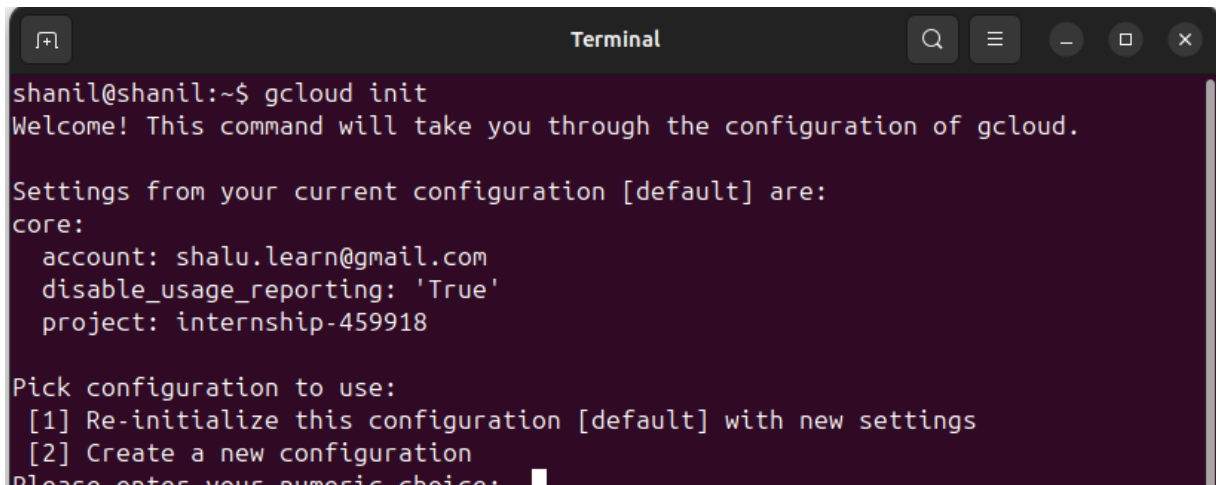
- Install Google Cloud CLI
sudo snap install google-cloud-cli --classic

A terminal window titled "Terminal" with a dark background. The prompt is "shani1@shani1:~\$". The command "gcloud version" has been executed, and the output lists various Google Cloud SDK components and their versions.

```
shani1@shani1:~$ gcloud version
Google Cloud SDK 522.0.0
alpha 2025.05.09
beta 2025.05.09
bq 2.1.16
bundled-python3-unix 3.12.9
core 2025.05.09
gcloud-crc32c 1.0.0
gsutil 5.34
minikube 1.35.0
skaffold 2.16.0
```

- Initialize gcloud SDK

```
# gcloud init
```



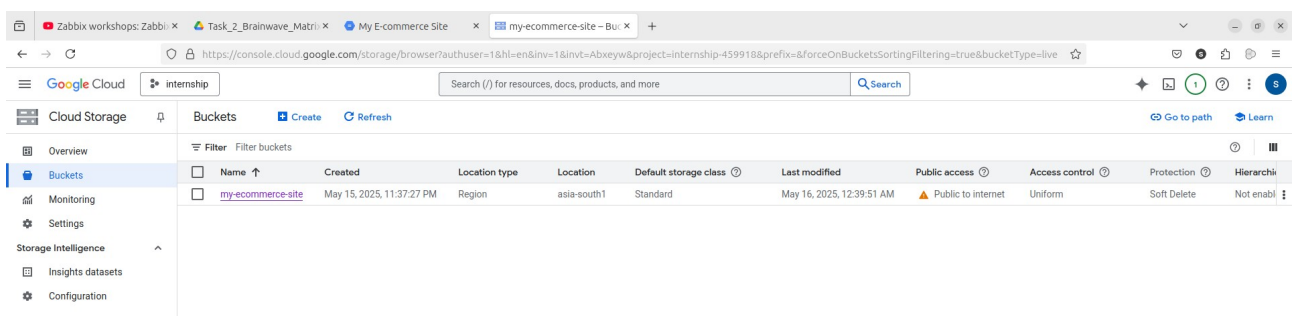
```
shamil@shamil:~$ gcloud init
Welcome! This command will take you through the configuration of gcloud.

Settings from your current configuration [default] are:
core:
  account: shalu.learn@gmail.com
  disable_usage_reporting: 'True'
  project: internship-459918

Pick configuration to use:
[1] Re-initialize this configuration [default] with new settings
[2] Create a new configuration
Please enter your numeric choice: 1
```

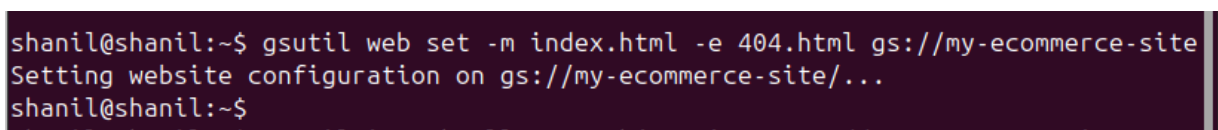
- Create a New Storage Bucket

```
# gsutil mb -l asia-south1 gs://my-ecommerce-site
```



- Enable Static Website Hosting on Bucket

```
# gsutil web set -m index.html -e 404.html gs://my-ecommerce-site
```



```
shamil@shamil:~$ gsutil web set -m index.html -e 404.html gs://my-ecommerce-site
Setting website configuration on gs://my-ecommerce-site/...
shamil@shamil:~$
```

- Create Website Files

```
# vim my-site/index.html
```

---code---

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8" />
```

```
<meta name="viewport" content="width=device-width, initial-scale=1" />
<title>My E-commerce Store</title>
<link rel="stylesheet" href="style.css" />
</head>
<body>
  <header>
    <div class="container">
      <h1 class="logo">ShopEase</h1>
      <nav>
        <a href="#">Home</a>
        <a href="#">Shop</a>
        <a href="#">About</a>
        <a href="#">Contact</a>
      </nav>
    </div>
  </header>

  <section class="hero">
    <div class="container">
      <h2>Welcome to ShopEase</h2>
      <p>Your one-stop online shop for everything you love.</p>
      <a href="#" class="btn">Shop Now</a>
    </div>
  </section>

  <section class="products container">
    <h3>Featured Products</h3>
    <div class="product-list">
      <div class="product-card">
        
        <h4>Product 1</h4>
        <p>$29.99</p>
        <button class="btn btn-small">Buy Now</button>
      </div>
      <div class="product-card">
```

```

<h4>Product 2</h4>
<p>$49.99</p>
<button class="btn btn-small">Buy Now</button>
</div>
<div class="product-card">
  
  <h4>Product 3</h4>
  <p>$19.99</p>
  <button class="btn btn-small">Buy Now</button>
</div>
</div>
</section>
```

```
<footer>
  <div class="container">
    <p>&copy; 2025 ShopEase. All rights reserved.</p>
  </div>
</footer>
</body>
</html>
```

```
# vim my-site/404.html
```

```
---code---
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1" />
  <title>404 - Page Not Found</title>
  <style>
    body {
```

```
font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
background: #f8d7da;
color: #721c24;
margin: 0;
padding: 0;
display: flex;
flex-direction: column;
align-items: center;
justify-content: center;
height: 100vh;
text-align: center;
}
h1 {
  font-size: 5rem;
  margin: 0;
  font-weight: 900;
}
p {
  font-size: 1.5rem;
  margin: 10px 0 30px 0;
}
a.button {
  background-color: #721c24;
  color: white;
  padding: 14px 28px;
  border-radius: 6px;
  text-decoration: none;
  font-weight: 600;
  font-size: 1rem;
  transition: background-color 0.3s ease;
}
a.button:hover {
  background-color: #501217;
}
</style>
```

```
</head>
<body>
  <h1>404</h1>
  <p>Oops! The page you're looking for doesn't exist.</p>
  <a class="button" href="/index.html">Back to Home</a>
</body>
</html>
```

```
# vim my-site/style.css
```

```
---code---
```

```
/* Reset and basic styles */
* {
  box-sizing: border-box;
  margin: 0;
  padding: 0;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

body {
  background-color: #f5f5f5;
  color: #333;
  line-height: 1.6;
}

.container {
  width: 90%;
  max-width: 1100px;
  margin: 0 auto;
}

/* Header */
header {
```

```
background-color: #222;
color: white;
padding: 1rem 0;
}
```

```
.logo {
  display: inline-block;
  font-size: 1.8rem;
  font-weight: bold;
}
```

```
nav {
  float: right;
}
```

```
nav a {
  color: white;
  text-decoration: none;
  margin-left: 20px;
  font-weight: 600;
}
```

```
nav a:hover {
  text-decoration: underline;
}
```

```
/* Hero Section */
```

```
.hero {
  background: #4CAF50;
  color: white;
  padding: 60px 0;
  text-align: center;
}
```

```
.hero h2 {
```

```
font-size: 2.8rem;
margin-bottom: 10px;
}
```

```
.hero p {
  font-size: 1.2rem;
  margin-bottom: 20px;
}
```

```
.btn {
  background-color: #333;
  color: white;
  padding: 12px 25px;
  border: none;
  border-radius: 5px;
  cursor: pointer;
  font-weight: 600;
  text-decoration: none;
}
```

```
.btn:hover {
  background-color: #555;
}
```

```
/* Products */
.products {
  padding: 40px 0;
}
```

```
.products h3 {
  text-align: center;
  margin-bottom: 30px;
  font-size: 2rem;
}
```



```
.product-list {  
  display: flex;  
  justify-content: space-around;  
  gap: 20px;  
  flex-wrap: wrap;  
}
```

```
.product-card {  
  background: white;  
  padding: 20px;  
  width: 280px;  
  box-shadow: 0 2px 5px rgba(0,0,0,0.1);  
  border-radius: 8px;  
  text-align: center;  
}
```

```
.product-card img {  
  width: 100%;  
  height: auto;  
  margin-bottom: 15px;  
}
```

```
.product-card h4 {  
  margin-bottom: 10px;  
}
```

```
.product-card p {  
  font-weight: bold;  
  margin-bottom: 15px;  
  color: #4CAF50;  
}
```

```
.btn-small {  
  padding: 8px 15px;  
  font-size: 0.9rem;
```

```
}
```

```
/* Footer */
```

```
footer {
```

```
background-color: #222;
```

```
color: white;
```

```
padding: 15px 0;
```

```
text-align: center;
```

```
margin-top: 40px;
```

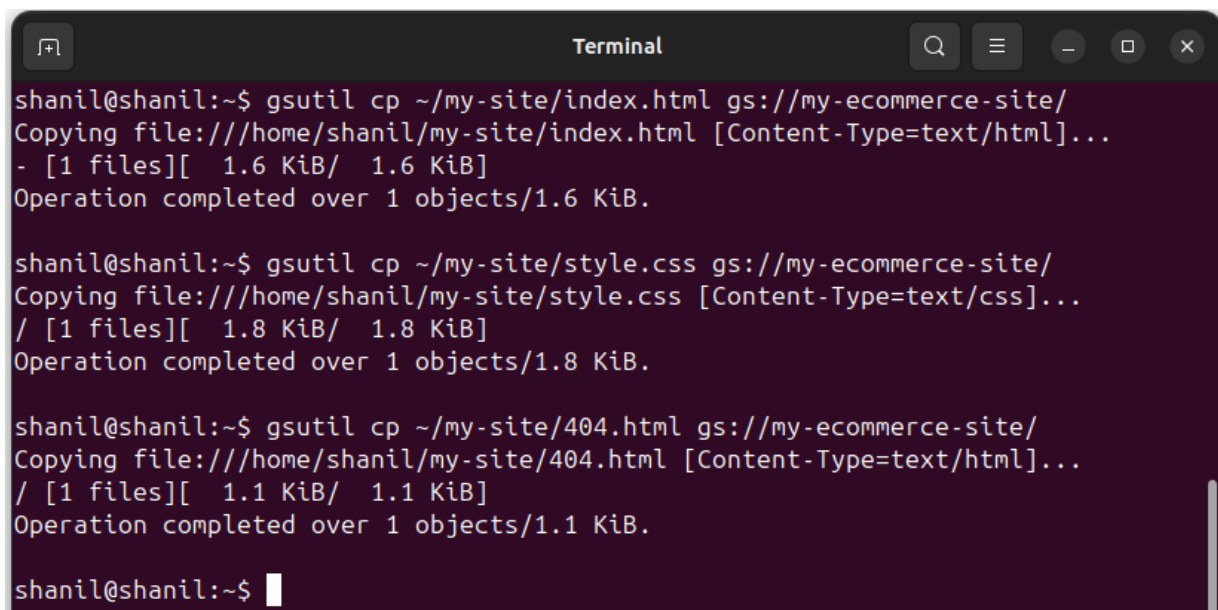
```
}
```

-
- Upload Website Files

```
# gsutil cp ~/my-site/index.html gs://my-ecommerce-site/
```

```
# gsutil cp ~/my-site/404.html gs://my-ecommerce-site/
```

```
# gsutil cp ~/my-site/style.css gs://my-ecommerce-site/
```

A terminal window titled "Terminal" with a dark background and light text. It shows three sequential commands using 'gsutil cp' to upload files from a local directory to a Google Storage bucket. Each command is followed by a confirmation message showing the file path, content type, and size. The first command uploads 'index.html' (1.6 KiB), the second uploads 'style.css' (1.8 KiB), and the third uploads '404.html' (1.1 KiB). The prompt 'shanil@shanil:~\$' is visible at the start of each line and at the end of the third command.

```
shanil@shanil:~$ gsutil cp ~/my-site/index.html gs://my-ecommerce-site/
Copying file:///home/shanil/my-site/index.html [Content-Type=text/html]...
- [1 files][ 1.6 KiB/ 1.6 KiB]
Operation completed over 1 objects/1.6 KiB.

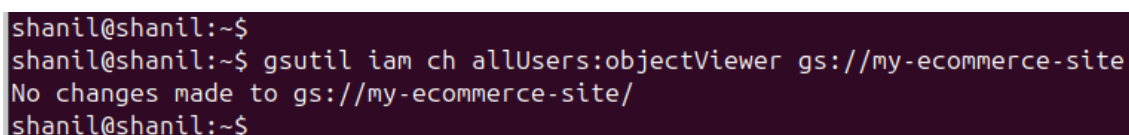
shanil@shanil:~$ gsutil cp ~/my-site/style.css gs://my-ecommerce-site/
Copying file:///home/shanil/my-site/style.css [Content-Type=text/css]...
/ [1 files][ 1.8 KiB/ 1.8 KiB]
Operation completed over 1 objects/1.8 KiB.

shanil@shanil:~$ gsutil cp ~/my-site/404.html gs://my-ecommerce-site/
Copying file:///home/shanil/my-site/404.html [Content-Type=text/html]...
/ [1 files][ 1.1 KiB/ 1.1 KiB]
Operation completed over 1 objects/1.1 KiB.

shanil@shanil:~$
```

- Make Bucket Public (for website access)

```
# gsutil iam ch allUsers:objectViewer gs://my-ecommerce-site
```

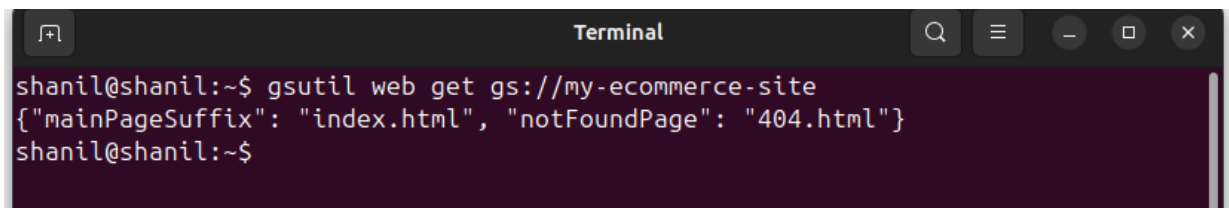
A terminal window showing the execution of the 'gsutil iam ch' command. The output indicates that no changes were made to the bucket's IAM policy. The prompt 'shanil@shanil:~\$' is visible at the start and end of the command line.

```
shanil@shanil:~$
shanil@shanil:~$ gsutil iam ch allUsers:objectViewer gs://my-ecommerce-site
No changes made to gs://my-ecommerce-site/
shanil@shanil:~$
```

- Verify Website Configuration
- ```
gsutil web get gs://my-ecommerce-site
```

## Output:-

```
{
 "mainPageSuffix": "index.html",
 "notFoundPage": "404.html"
}
```

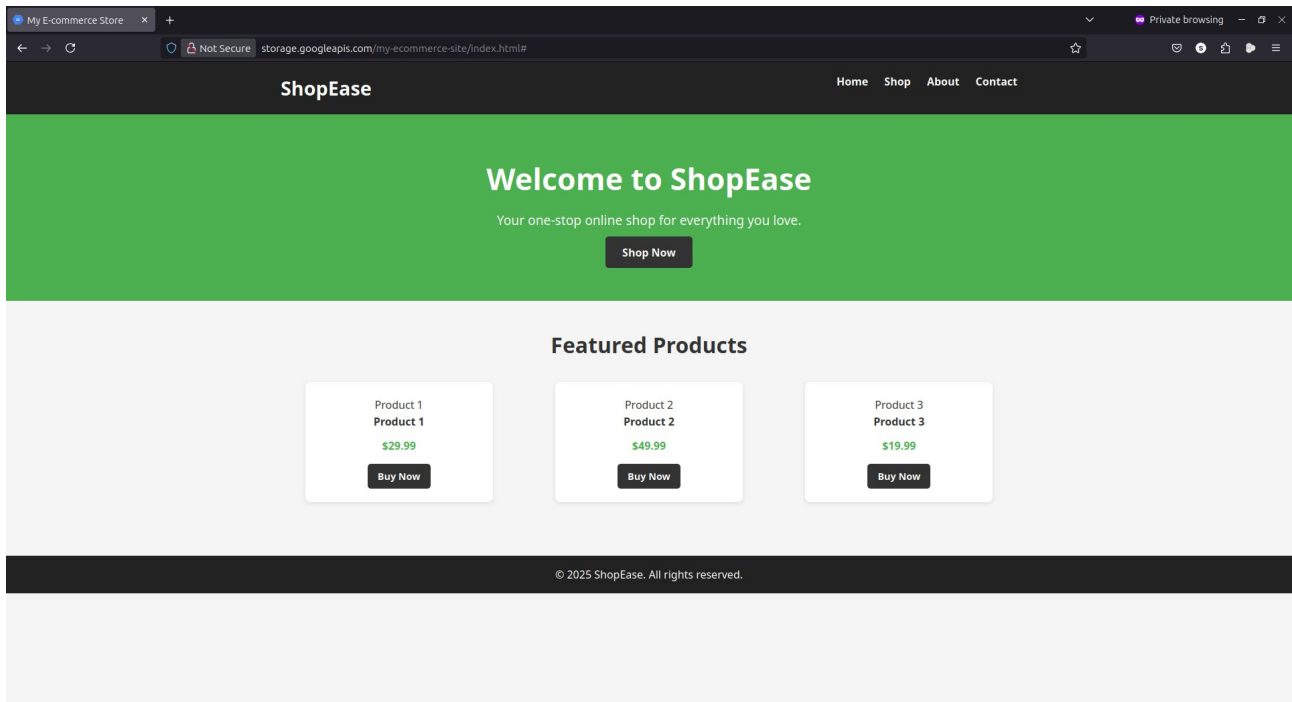


```
Terminal
shanil@shanil:~$ gsutil web get gs://my-ecommerce-site
{"mainPageSuffix": "index.html", "notFoundPage": "404.html"}
shanil@shanil:~$
```

## Accessing the Website:-

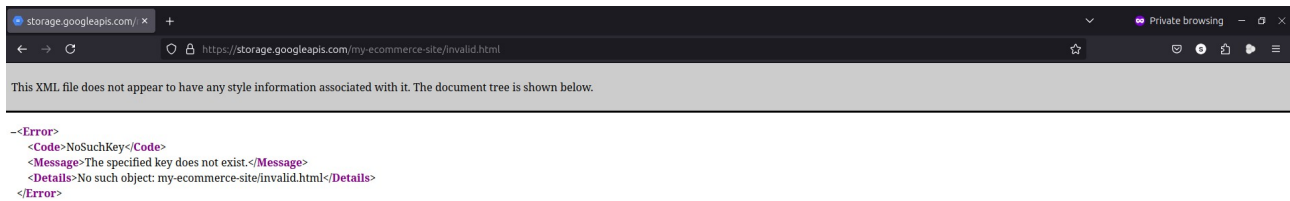
Homepage (index):

<https://storage.googleapis.com/my-ecommerce-site/index.html>



Custom 404 Page (on wrong URL):

Try: <https://storage.googleapis.com/my-ecommerce-site/invalid.html>



## Site Overview:-

- A basic HTML/CSS website with a sample e-commerce layout.
- Homepage includes buttons, sample product cards, and styling.
- Custom 404.html page shown when invalid URL is accessed.

## Conclusion:-

Through this project, I learned how to use **Google Cloud Storage** for static website hosting, set up **access control with IAM**, and implement **custom error pages**.

This hands-on experience enhanced my understanding of deploying static web content using **Google Cloud CLI tools** and managing cloud resources efficiently.

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