Part 1: AWS S3 Bucket Creation and Static Website Hosting

1.Login to AWS root user - Go to the AWS S3 Console.

2.Create a Bucket

* + Click on “Create Bucket” (top right, not the very top).
  + Under “General configuration”, enter the unique bucket name swe645-assignment1-syanama2
  + Scroll to “Block Public Access settings for this bucket” and uncheck “Block all public access”, then check the acknowledgment checkbox.
  + Click “Create bucket”.

3.Enable Static Website Hosting

In the bucket list, click the created bucket “swe-645-assignment1-syanama2”.

* Go to the “Properties” tab.
* Scroll down to the “Static website hosting” section and click “Edit” and then select “Enable”, then click “Save changes”.
* In the “Index document”, enter Index.html.
* In the “Error document” , enter error.html.
* Click “Save Changes”.

4.Upload Website Files

* Go to the “Objects” tab and click “Upload”.
* Click “Add files” and select your website files (e.g., index.html, error.html, png files).
* Click “Upload”.

5.Set Bucket Policy to Make Files Public

* Go to the “Permissions” tab and under “Bucket policy”, click “Edit” and paste the following code  
    
  {

"Version": “2012-10-17",

"Statement": [

{

"Sid": "PublicReadGetObject",

"Effect": "Allow",

"Principal": "\*",

"Action": ["s3:GetObject"],

"Resource": [“arn:aws:s3:::swe-645-assignment1-syanama2/\*”

]

]

}

* Click “Save Changes”.

6.Access Your Website

* Go to the “Properties” tab.
* Under “Static website hosting”, find the website endpoint URL and click it to open your website.
* Example: http://swe-645-assignment1-syanam2.s3-website.us-east-2.amazonaws.com/

Part 2: Launching an EC2 Instance and Hosting a Website

1.Login to AWS and Create EC2 Instance

* + Go to the AWS EC2 Console and click “Launch instances”.
  + Under “Name and tags”, enter a name of instance (syanama2-swe645).
  + Under “Application and OS Images (Amazon Machine Image)”, select Ubuntu.
  + Under “Key pair (login)”, click “Create new key pair”, named it assign1-swe645, and choose .ppk as the format.
  + Download the .ppk file.
  + Under “Network settings”, ensure SSH, HTTP, and HTTPS traffic from the internet is allowed.
  + Click “Launch Instance”.

2. Connect to the EC2 Instance

* Once the instance is running and status checks are passed, click “Connect”.
* Use EC2 Instance Connect to access the instance terminal.

3.Install Apache Web Server

* In the terminal, run these commands to install and start Apache:

sudo apt update

sudo apt install -y apache2

sudo systemctl start apache2

sudo systemctl enable apache2

* To gain write access to /var/www/html, run:  
    
  sudo usermod -aG root ubuntu

sudo chmod -R 775 /var/www/html/

4.Upload Files Using WinSCP

* Open WinSCP and use the instance's public IPv4 as the host name, and ubuntu as the username.
* In Advanced Settings > SSH > Authentication, select the .ppk file for the private key.
* Drag and drop survey.html into the /var/www/html/ folder.

Access the Website

* Use the instance's public IPv4 or public IPv4 DNS to access the uploaded file:

EC2: <http://ec2-18-217-156-108.us-east-2.compute.amazonaws.com/survey.html>

S3 Bucket: <http://swe-645-assignment1-syanama2.s3-website.us-east-2.amazonaws.com>