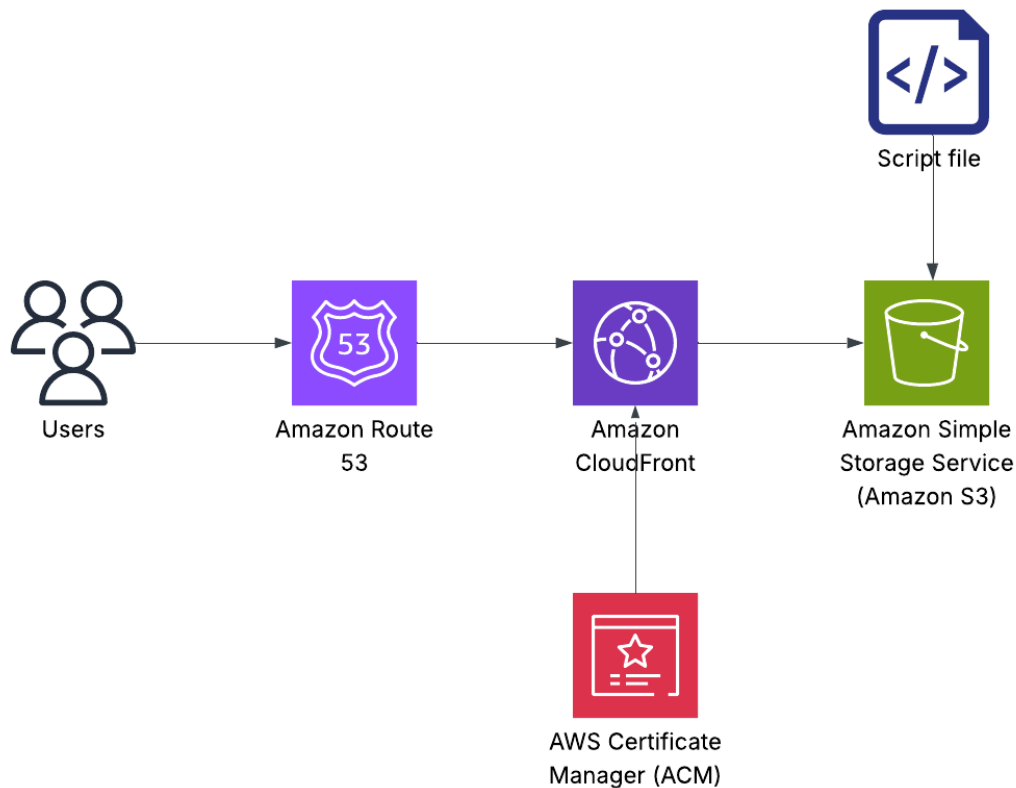


Host a Static Website on AWS Using S3, Route 53 & CloudFront



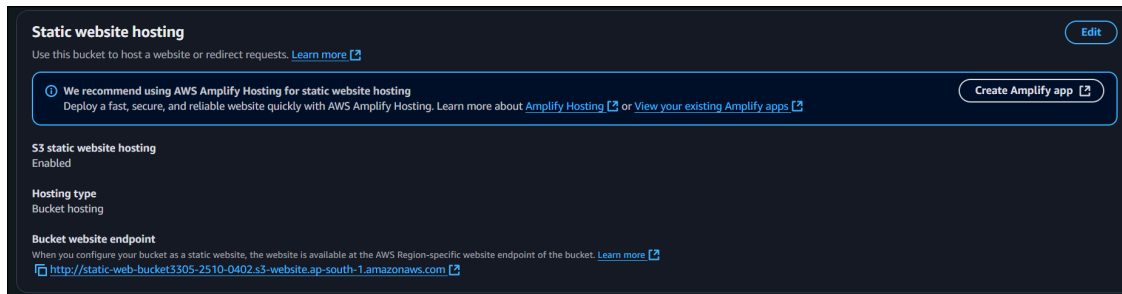
The steps to set up static web hosting using AWS S3, Route 53, and CloudFront with HTTPS redirection

1. Firstly, I want to get the Domain name. For that, we use the AWS service called Route 53. Register a Domain in Route 53

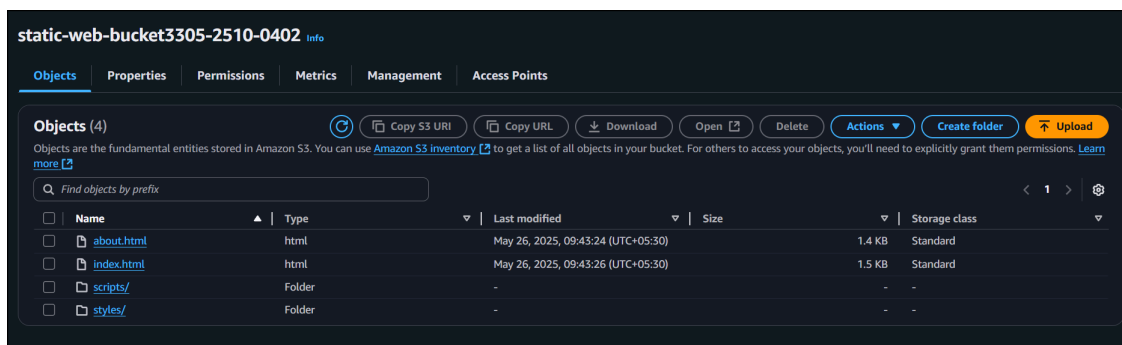
- Go to **AWS Route 53** → **Register Domain**.
- Choose a domain (e.g., [estatic.com](https://www.estatic.com)) and complete registration.

2. Next we want to Create an S3 Bucket to store web app source files.

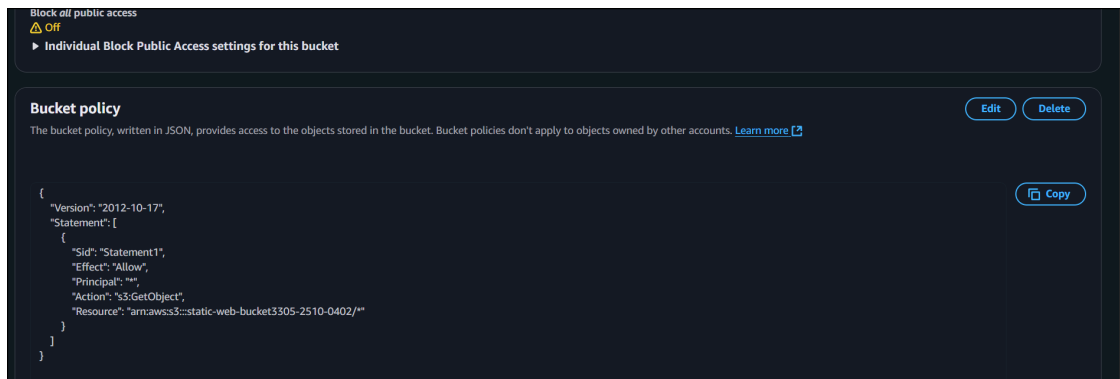
- Name the bucket **exactly as your domain** (`estatic.com`).
- Enable **Static Website Hosting** in the bucket properties.



- Upload your website files (e.g., `index.html` , CSS, JS).



- Unblock **public access** (temporarily, later we restrict via CloudFront).



3. Set S3 Bucket Policy

- Attach a policy allowing public read access:

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

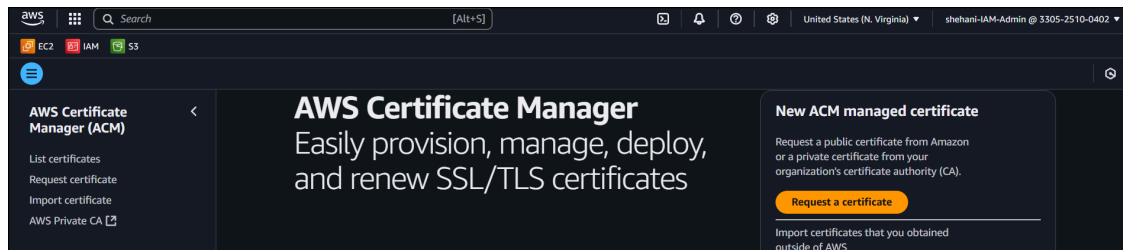


Next want the map domain name. Mapping is associate a registered domain name with a specific web server or domain.

This allows visitors to access the website using a domain name instead of IP address.

For mapping is recommended to redirect HTTP to HTTPS. For that, apply an SSL certificate.

4. Create an SSL Certificate in AWS ACM

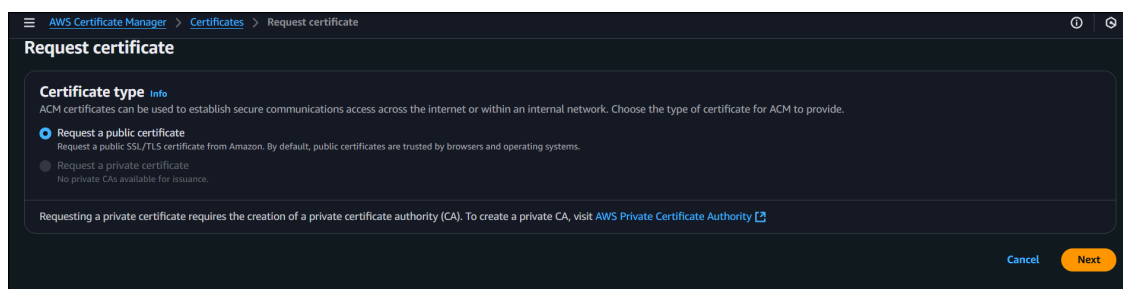


- Go to **AWS Certificate Manager (ACM)** in **US East (N. Virginia)** (required for CloudFront).



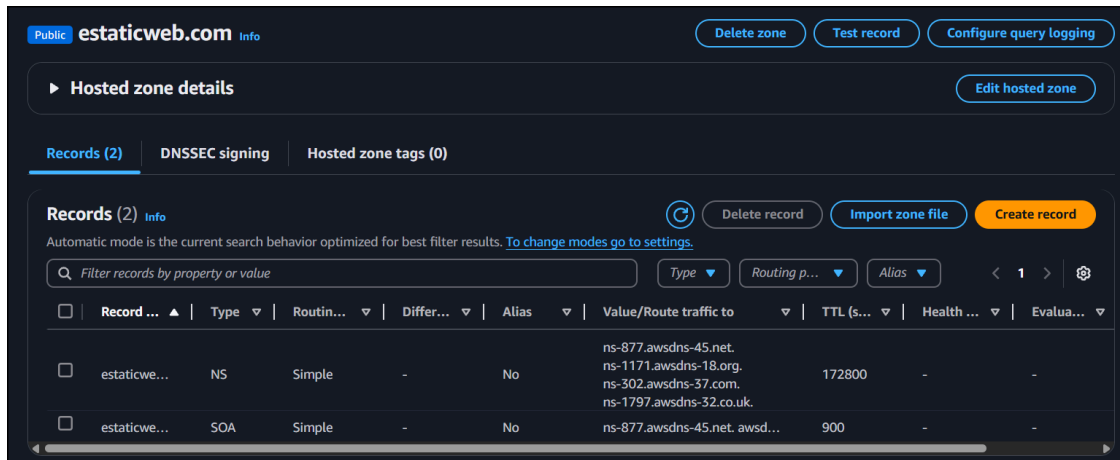
CloudFront distribution service is a regional service. So whatever certificate we want to select region as North Virginia.

- Request a certificate for your domain (`estatic.com`).



- Add DNS validation by creating a **CNAME record in Route 53** (automated via ACM).

then pending validation want to validate. For that, create a record by selecting hosted zone.



5. Set Up CloudFront Distribution

- **Origin Domain:** Select your S3 bucket (`estatic.com.s3.amazonaws.com`).
- **Origin Access:** Use **Origin Access Control (OAC)**.
- **Viewer Protocol Policy:** Redirect HTTP to HTTPS.
- **Alternate Domain Name (CNAME):** `estatic.com` .
- **SSL Certificate:** Select the ACM certificate you created.
- **Default Root Object:** `index.html` (if needed).
- Deploy the distribution.

6. Update S3 Bucket Permissions for CloudFront

- After creating CloudFront, attach an **S3 bucket policy** allowing access only via CloudFront OAC:

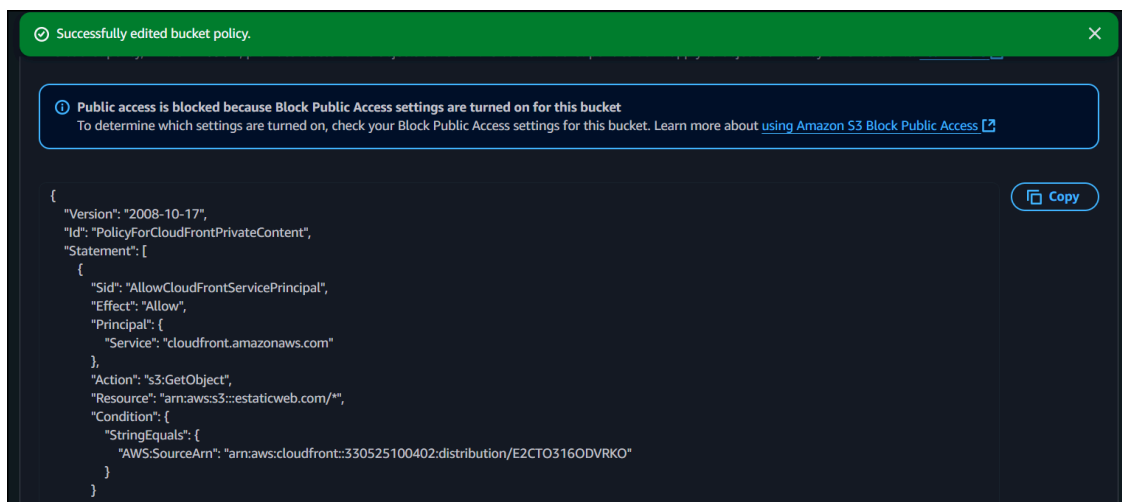
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
```

```

    "Principal": {
      "Service": "cloudfront.amazonaws.com"
    },
    "Action": "s3:GetObject",
    "Resource": "arn:aws:s3:::estatic.com/*",
    "Condition": {
      "StringEquals": {
        "AWS:SourceArn": "arn:aws:cloudfront::ACCOUNT_ID:distribution/DI
STRIBUTION_ID"
      }
    }
  }
]
}

```

- **Re-enable block public access** on the S3 bucket (since CloudFront will handle access).



7. Route 53 DNS Configuration

- Go to **Route 53** → **Hosted Zones** → **estatic.com**.
- Create an **A record**:

- Alias: **Yes**.
- Route traffic to: Your CloudFront distribution.
- (Optional) Add a **CNAME** for **www** pointing to **estatic.com**.

Quick create record

Record 1

Record name: subdomain estaticweb.com

Record type: A - Routes traffic to an IPv4 address and some AWS resources

Alias: ☒

Route traffic to: Alias to CloudFront distribution

Value: d3c4vjyatuq.cloudfront.net

Routing policy: Simple routing

Evaluate target health: ☐ No

Add another record

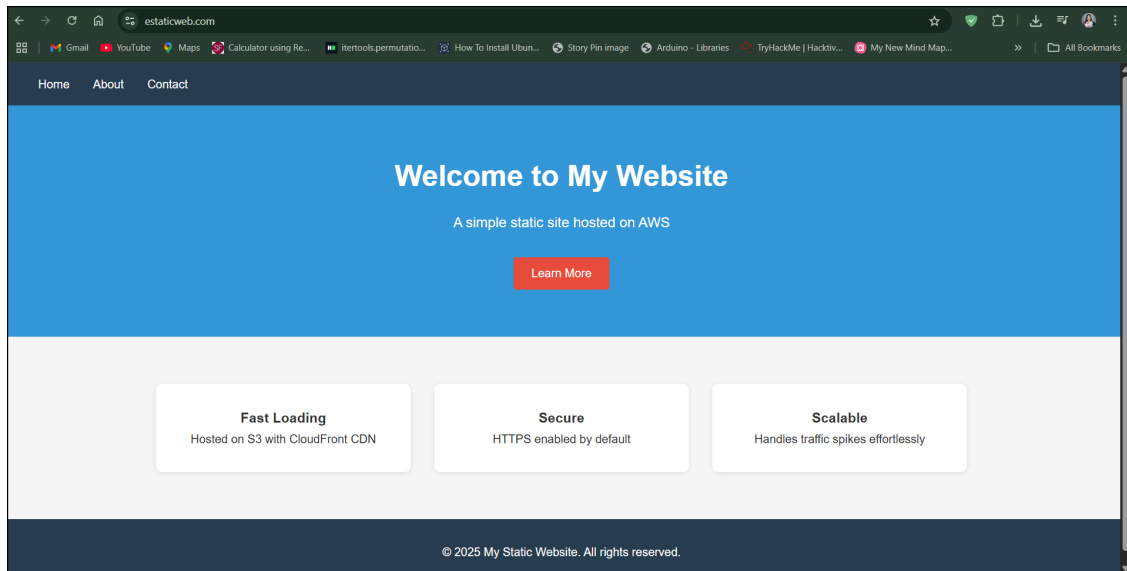
Record for estaticweb.com was successfully created. Route 53 propagates your changes to all of the Route 53 authoritative DNS servers within 60 seconds. Use "View status" button to check propagation status.

Records (4)

Record	Type	Routing policy	Alias	Value/Route traffic to	TTL (s)	Health check	Evaluate target health
estaticwe...	A	Simple	Yes	d3c4vjyatuq.cloudfront.net	-	-	No
estaticwe...	NS	Simple	No	ns-877.awsdns-45.net. ns-1171.awsdns-18.org. ns-302.awsdns-37.com. ns-1797.awsdns-32.co.uk.	172800	-	-
estaticwe...	SOA	Simple	No	ns-877.awsdns-45.net. awsd...	900	-	-
_1413bb9...	CNAME	Simple	No	_92fff67e8bf5938ba224fd4...	300	-	-

8. Verify & Test

- Access <https://estatic.com> in a browser.



- Ensure HTTP redirects to HTTPS and content loads securely.
-