

Hosting a Static Website on AWS Using S3 and Amplify

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Hi!

Welcome to my portfolio where I have done a few exercises with the help of my mentor, Amber Israelsen. You can find her YouTube link here: <https://www.youtube.com/@TinyTechnicalTutorials>

I will be uploading more tutorials as and when, so stay tuned!

For this project, I am going to create a very simple static website on AWS. The main tools or services I will be using are Amazon S3 and AWS Amplify.

So, let's get started!

First things first, it would be good to have this down somewhere; this is the html code for the webpage:

```
<html xmlns="http://www.w3.org/1999/xhtml" >  
<head>  
    <title>My First Website</title>  
</head>  
<body>  
    <h1>My Summer Vacation - UPDATED!</h1>  
    <p>I'm hosted on Amazon S3!</p>  
      
</body>  
</html>
```

You will need to create an HTML document out of it. Simply copy it, open a new text file and paste it into it, then save it as a 'Hypertext Markup Language' file.

We will begin with Amazon S3. Go over to the console and select S3 from the list of services. If it's not there, you would have to search for it.

PS: Oh and, do pay attention to the green arrows and rounded squares I will be using in the screenshots, to make your life easier. 😊

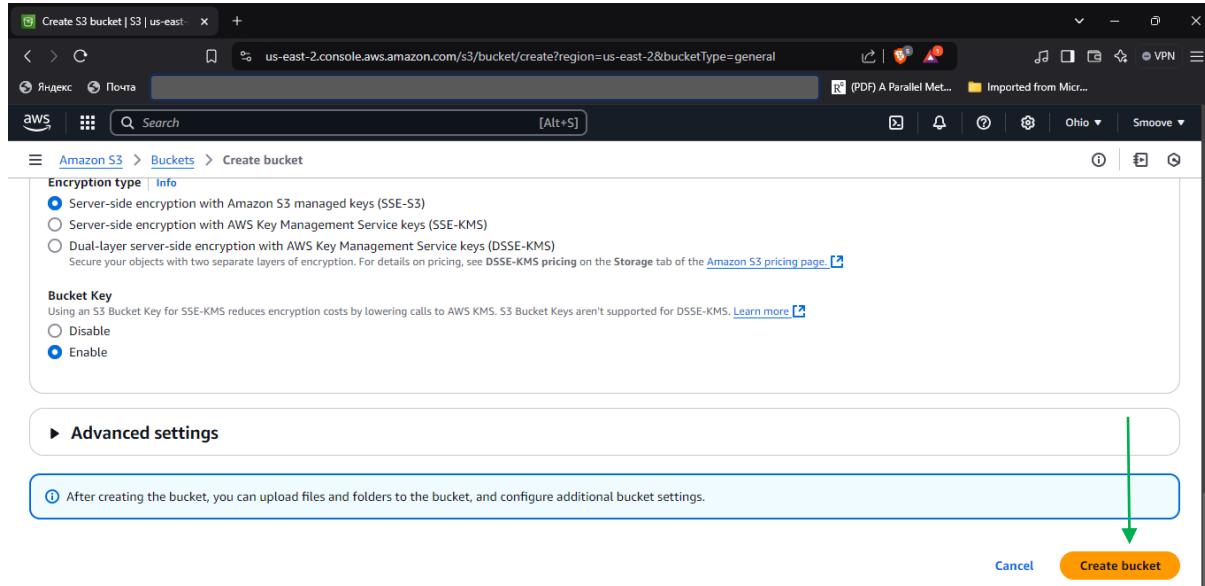
The screenshot shows the AWS Console Home page. On the left, there's a sidebar titled "Recently visited" with icons for various services like S3, CloudShell, IAM, EC2, etc. The S3 icon is highlighted with a green arrow pointing to it. On the right, there's a section titled "Applications (0)" with a "Create application" button.

Then, click on 'Create bucket'.

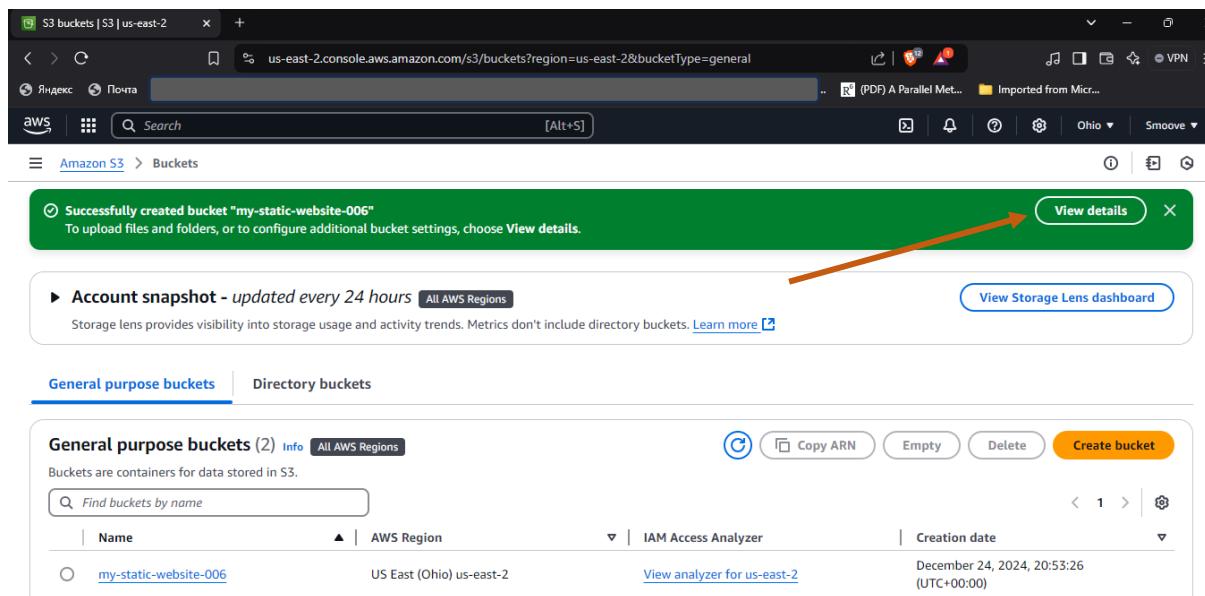
The screenshot shows the Amazon S3 buckets page. On the left, there's a sidebar with options like General purpose buckets, Directory buckets, Table buckets, etc. The "General purpose buckets" tab is selected. On the right, there's a table titled "General purpose buckets (1)". A green arrow points to the "Create bucket" button at the top right of the table.

Name	AWS Region	IAM Access Analyzer	Creation date
mystaticwebsite-007	US East (Ohio) us-east-2	View analyzer for us-east-2	December 24, 2024, 20:20:39 (UTC+00:00)

Give your bucket a name like I did mine, then scroll down all the way to the end of the page and click on ‘Create bucket’.



Click on ‘View details’ to go to the bucket you just created.



Now, you need to upload the html page and the image that you will need for your website. So here, click on ‘Upload’.

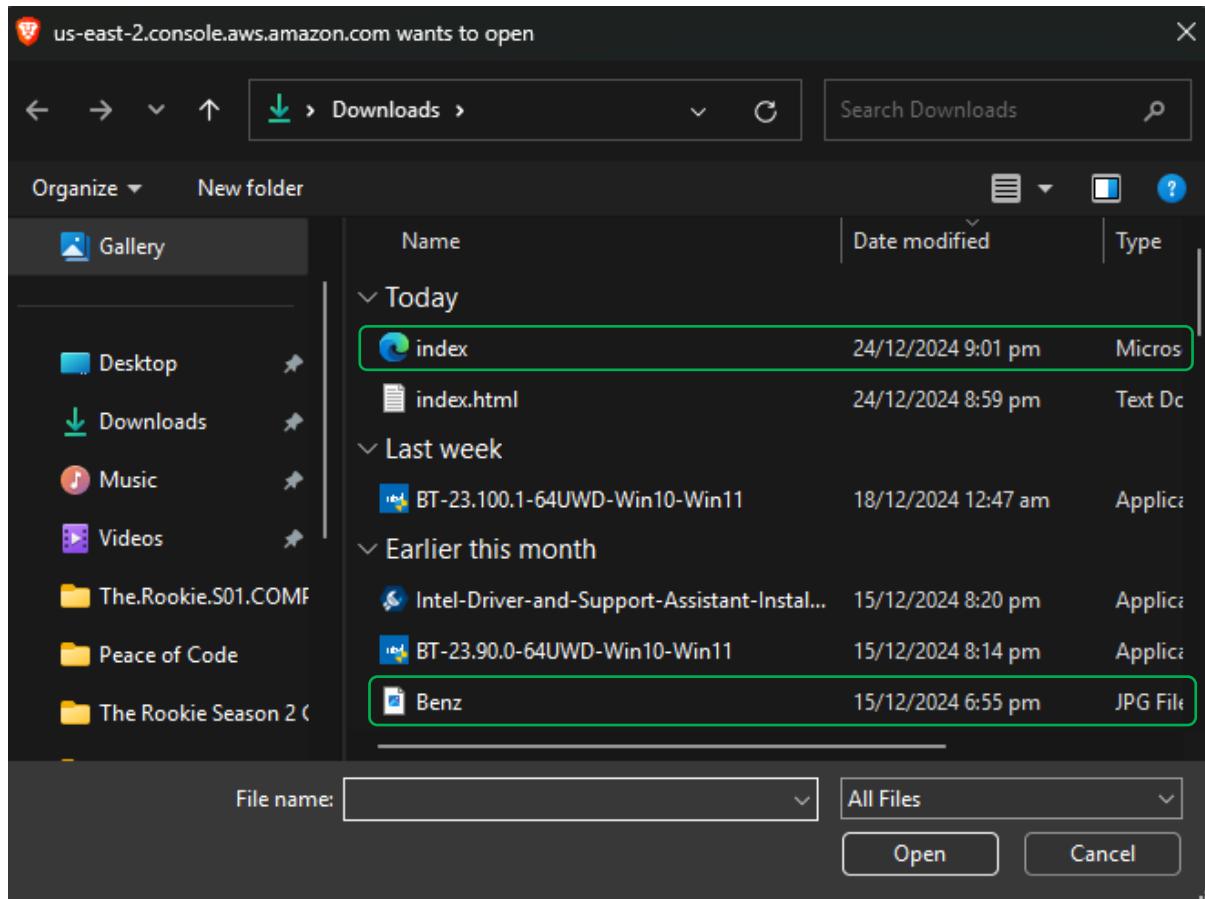
The screenshot shows the AWS S3 console interface. The URL in the address bar is us-east-2.console.aws.amazon.com/s3/buckets/my-static-website-006?region=us-east-2&bucketType=ge.... The main content area is titled "my-static-website-006". Below it, there's a navigation bar with tabs: Objects (selected), Metadata - Preview, Properties, Permissions, Metrics, Management, and Access Points. Under the "Objects" tab, there's a toolbar with buttons for Copy S3 URI, Copy URL, Download, Open, Delete, Actions, Create folder, and Upload. A search bar labeled "Find objects by prefix" is present. Below the toolbar, there are columns for Name, Type, Last modified, Size, and Storage class. A message states "No objects" and "You don't have any objects in this bucket." At the bottom right of this section, a large blue "Upload" button is highlighted with a green arrow pointing to it.

It will take you to your Windows folders, where you get to choose your uploads depending on where you have saved them. I have mine in ‘Downloads’, so I will locate and select them from there.

Click on ‘Add files’.

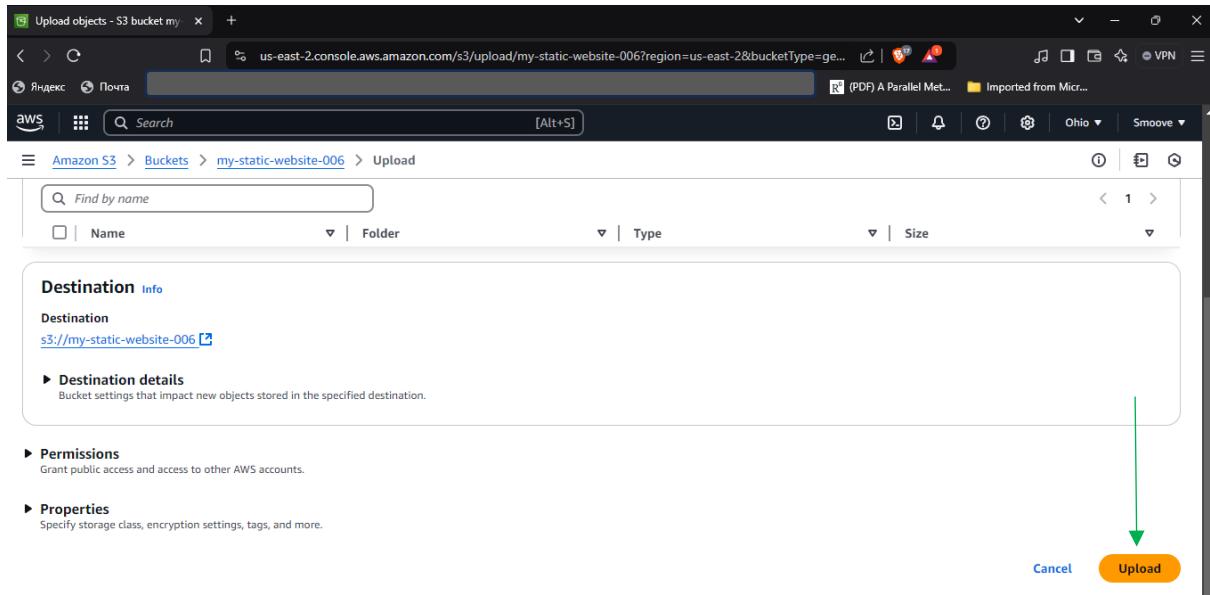
The screenshot shows the "Upload objects - S3 bucket my-static-website-006" page. The URL in the address bar is us-east-2.console.aws.amazon.com/s3/upload/my-static-website-006?region=us-east-2&bucketType=ge.... The main content area is titled "Upload". Below it, there's a message: "Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. [Learn more](#)". There's a dashed blue rectangular area with a green arrow pointing down to the "Add files" button. Below this, there's a section titled "Files and folders (0)". It contains a search bar and a table with columns: Name, Folder, Type, and Size. A message says "No files or folders" and "You have not chosen any files or folders to upload". At the bottom, there's a "Destination" section.

From the open folder, I selected the html file and the image I want to use (a Benz SUV because I'm a Mercedes freak 😊) and clicked on 'Open'. After, you should see them on your S3 page as shown.

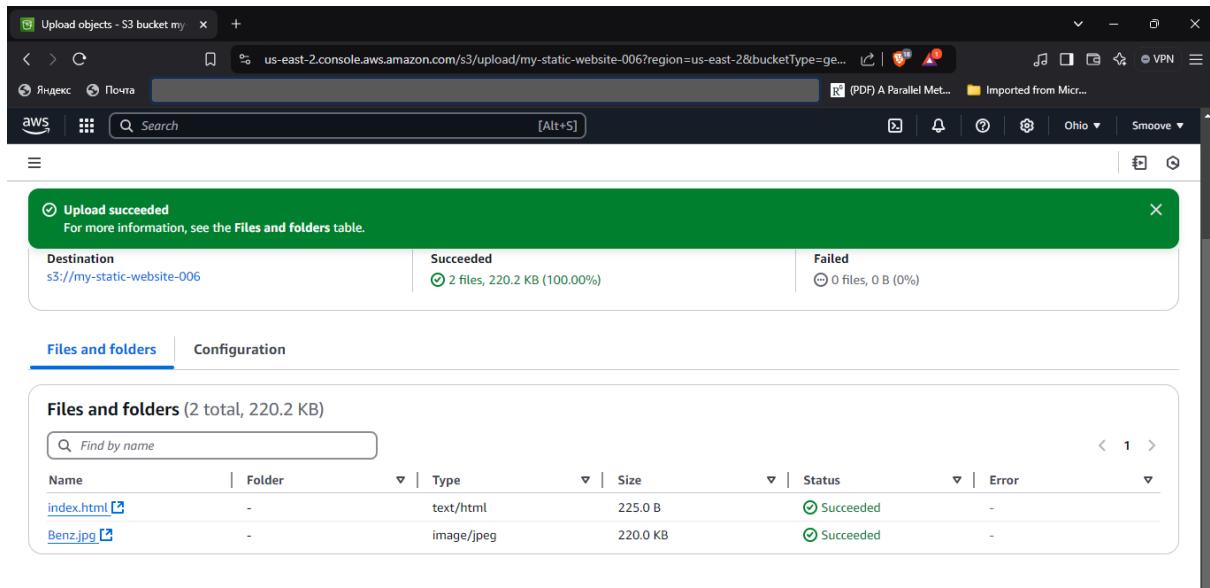


Name	Folder	Type	Size
index.html	-	text/html	225.0 B
Benz.jpg	-	image/jpeg	220.0 KB

Then we can go ahead and click on ‘Upload’ at the bottom right corner.



You should see a green notification showing you that your upload was successful.



Click on ‘Close’ at the top right corner to go to the properties of your bucket.

The screenshot shows the 'Upload: status' page for an S3 bucket named 'my-static-website-006'. The summary indicates 2 files were uploaded successfully (Succeeded) and 0 files failed. Below this, there's a table titled 'Files and folders' showing 2 total items, totaling 220.2 KB. The table includes columns for Name, Folder, Type, Size, Status, and Error. A 'Find by name' search bar is also present.

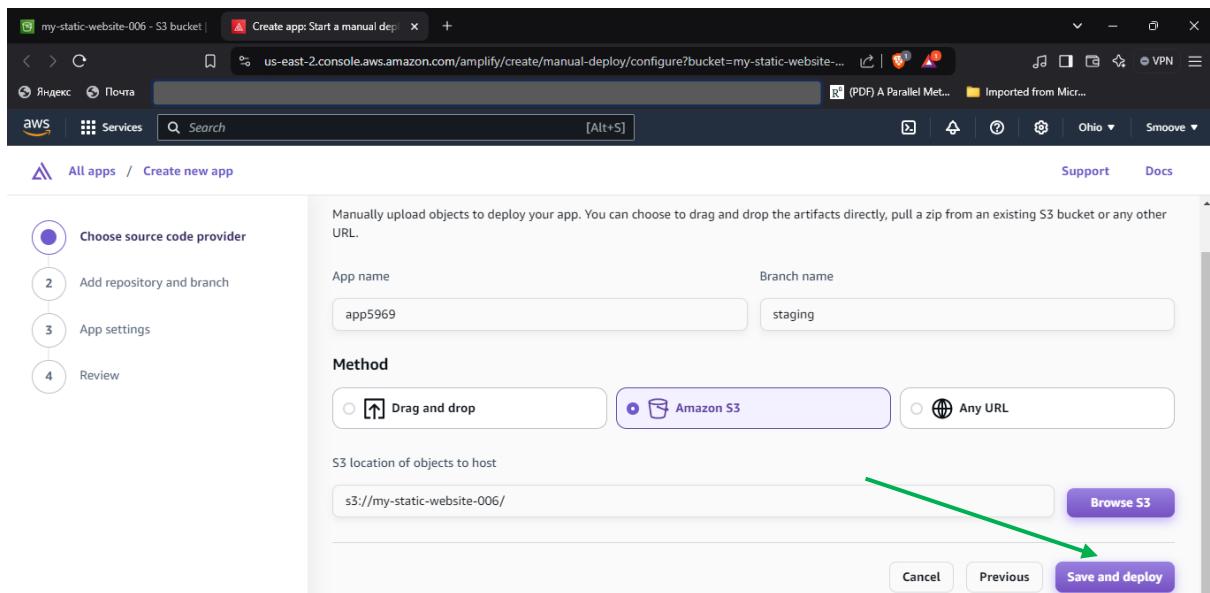
Click on ‘Properties’ and scroll all the way down to where you have the ‘Static website hosting’ option. Click on ‘Create Amplify app’.

The screenshot shows the 'my-static-website-006' bucket properties page. The 'Properties' tab is selected. In the 'Bucket overview' section, it shows the AWS Region as 'US East (Ohio) us-east-2', the ARN as 'arn:aws:s3:::my-static-website-006', and the Creation date as 'December 24, 2024, 20:53:26 (UTC+00:00)'. In the 'Bucket Versioning' section, it says 'Disabled'. At the bottom, there's a note about Multi-factor authentication (MFA) delete.

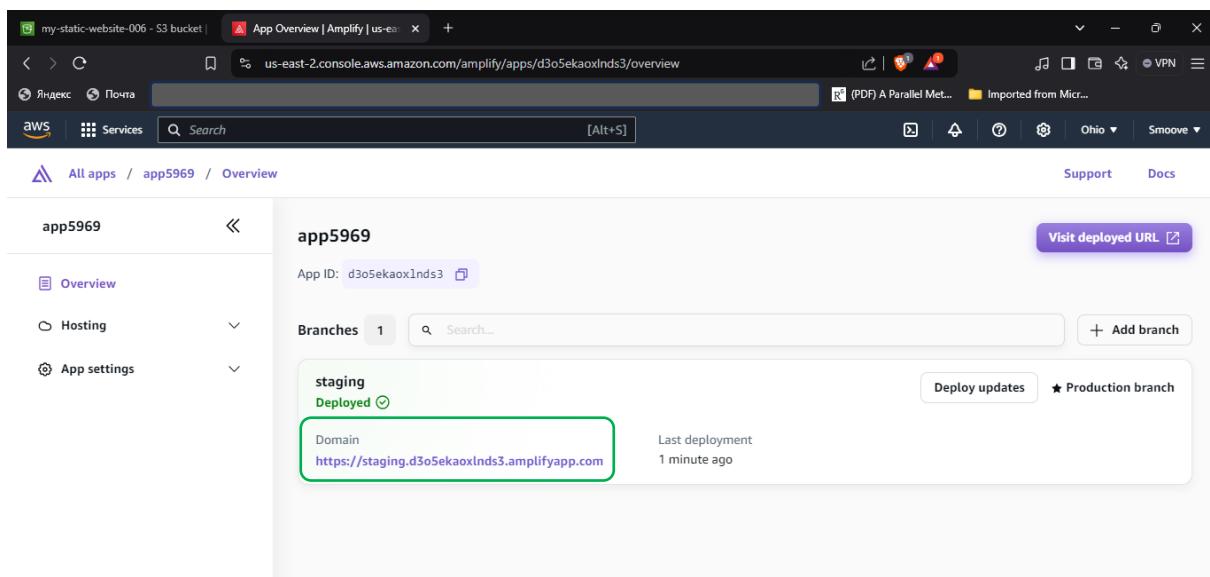
The screenshot shows the AWS S3 console for the bucket 'my-static-website-006'. It displays two main sections: 'Requester pays' and 'Static website hosting'. Under 'Requester pays', there is a note about enabling requester pays for requests and data transfer costs, with a link to learn more. Under 'Static website hosting', there is a note about using the bucket to host a website or redirect requests, with a link to learn more. A callout box highlights a recommendation to use AWS Amplify Hosting for static website hosting, with links to 'Create Amplify app' and 'View your existing Amplify apps'.

This will open a new tab for the Amplify console, where we will find that a new app has already been created for us and linked to the S3 bucket. All we would have to do would be to hit ‘Save and deploy’.

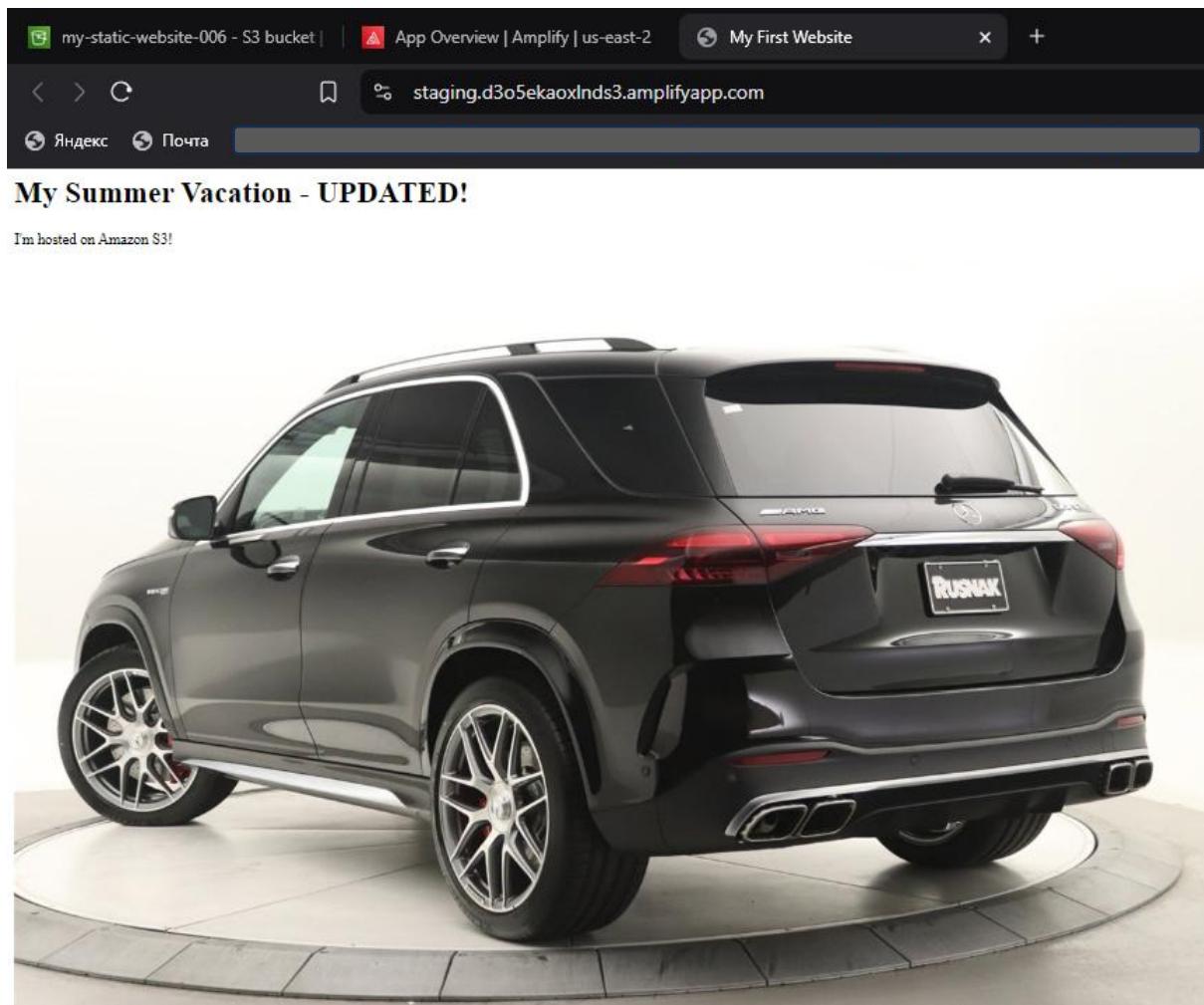
The screenshot shows the AWS Amplify console for creating a new app. The process is divided into four steps: 1. Choose source code provider (selected), 2. Add repository and branch, 3. App settings, and 4. Review. The current step is 'Choose source code provider'. The 'Method' section is set to 'Amazon S3', with the S3 location of objects to host set to 's3://my-static-website-006/'. There is a 'Browse S3' button available.



All set. Now go ahead and click on the URL under ‘Domain’.



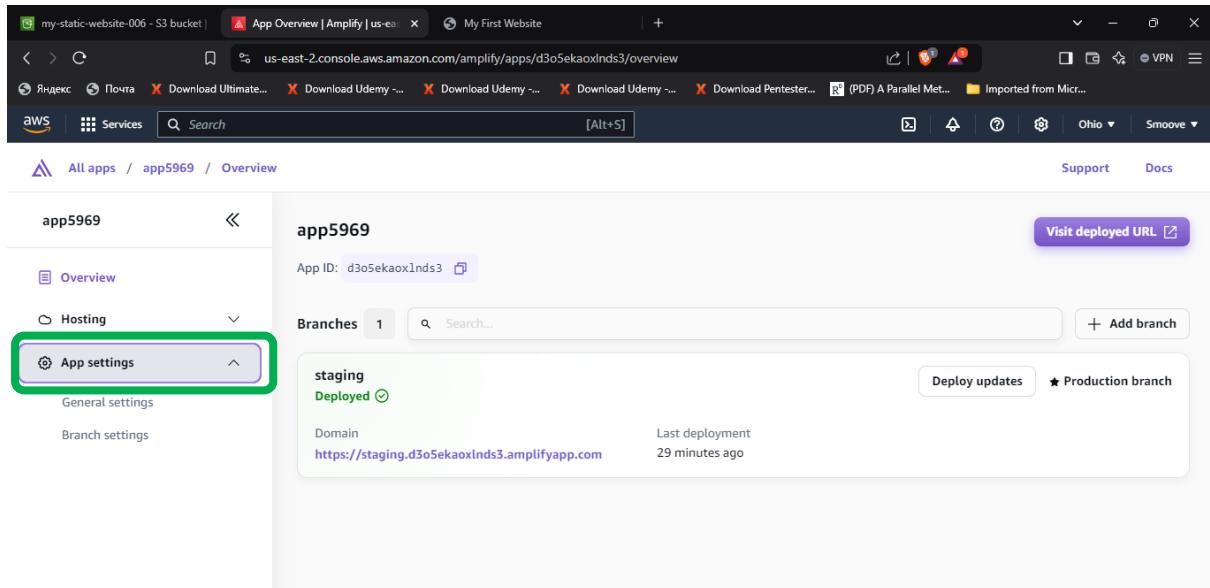
You should get something like this:



Awesome, right?

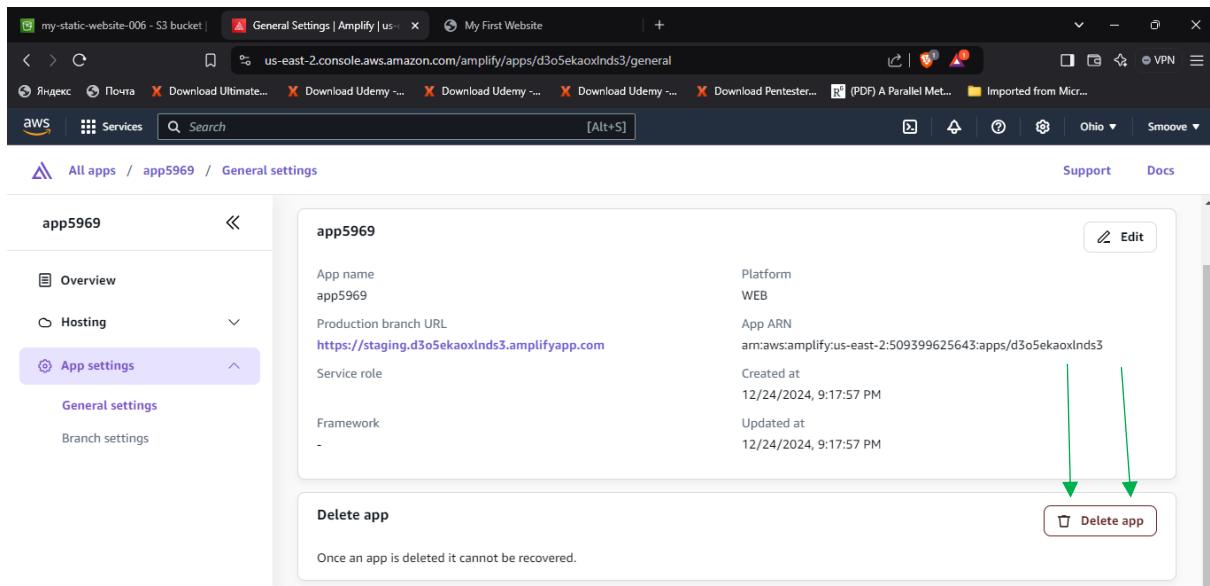
That's pretty much it for this simple project. But before we go, always, **ALWAYS**, remember to delete all the work you have created if it was just for practice like in this case. We don't want any unforeseen bills next month. Very important!

So, let's begin with the Amplify app we created. Click on 'App settings' on the left.



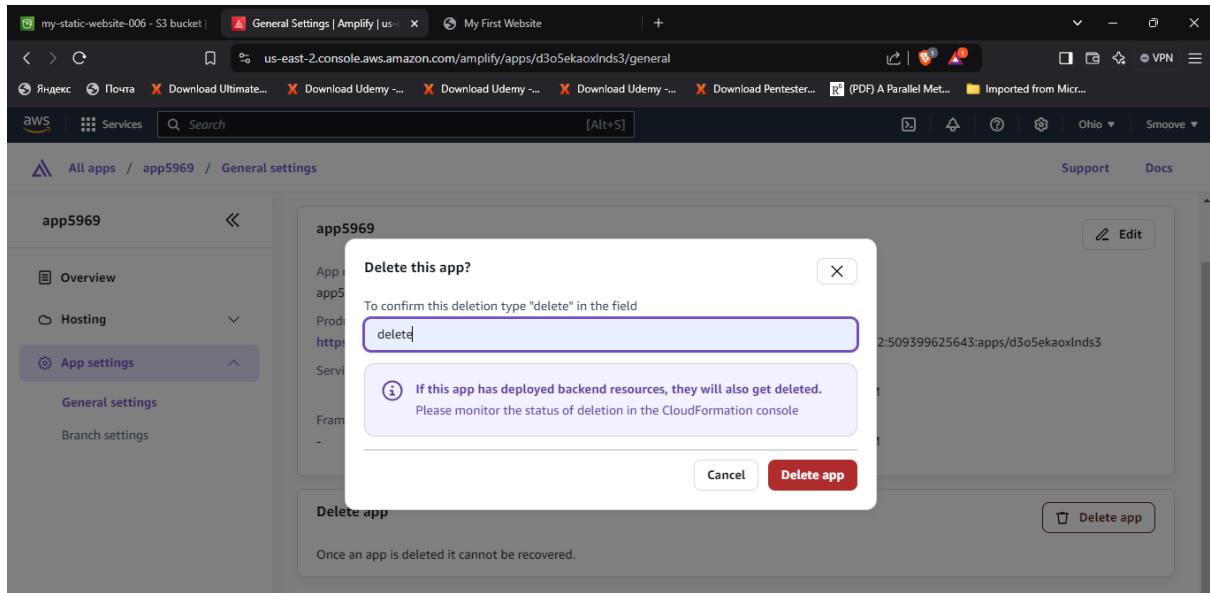
The screenshot shows the AWS Amplify App Overview page for an app named 'app5969'. On the left, there is a navigation sidebar with 'Overview', 'Hosting' (expanded), and 'App settings' (highlighted with a green box). Under 'App settings', there are 'General settings' and 'Branch settings'. The main content area displays the app details: App ID: d3o5ekaoxlnd3, Branches: 1 (staging, Deployed), Domain: https://staging.d3o5ekaoxlnd3.amplifyapp.com, Last deployment: 29 minutes ago. A purple button 'Visit deployed URL' is visible at the top right.

Next, go ahead and delete the app by simply clicking on 'Delete app' on the right.



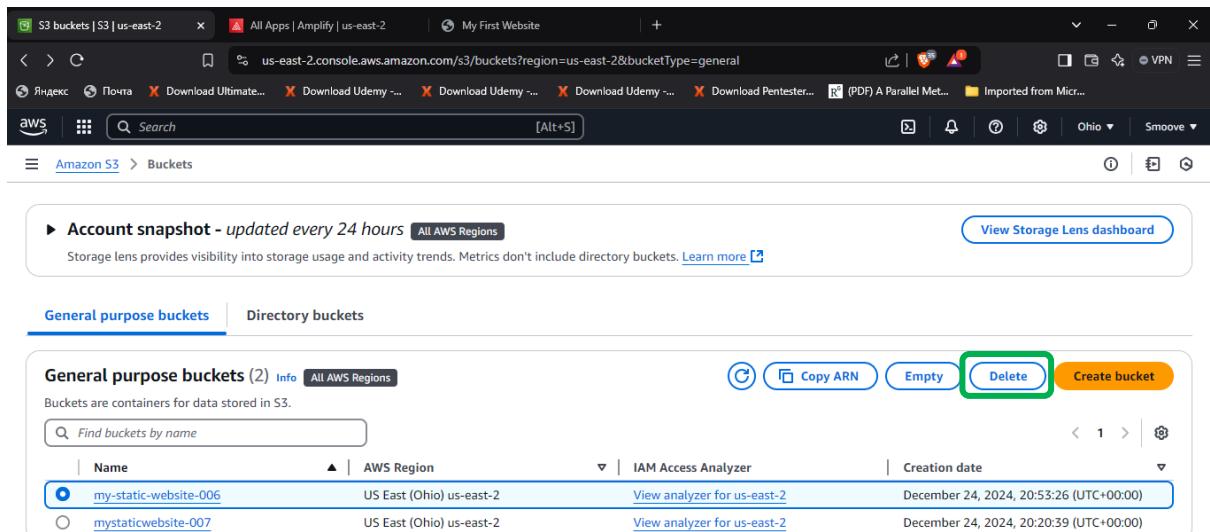
The screenshot shows the AWS Amplify General Settings page for the same app. The 'App settings' menu item is highlighted with a purple box. The main content area shows general settings like App name (app5969), Platform (WEB), Production branch URL (https://staging.d3o5ekaoxlnd3.amplifyapp.com), Service role, Framework, and creation details. At the bottom, there is a 'Delete app' section with a warning message: 'Once an app is deleted it cannot be recovered.' A red box highlights the 'Delete app' button, and two green arrows point down to it from below.

You will need to type 'delete' in the field indicated below as shown, to successfully get rid of it.



And that's it for Amplify. Now let's go ahead and delete the S3 bucket as well.

Select the bucket you need to delete by clicking on the bullet to the left of it as shown, and then click on 'Delete'.



Since we already have some files saved in this bucket, we are likely going to get a notification telling us that our bucket is not empty. So, we will need to 'clean it out' before finally deleting it.

Click on ‘Empty bucket’ and then follow the prompts as shown.

The screenshot shows the AWS S3 console with the URL us-east-2.console.aws.amazon.com/s3/bucket/my-static-website-006/delete?region=us-east-2&bucketType=static. The page title is "Delete bucket". A red box highlights a message: "This bucket is not empty. Buckets must be empty before they can be deleted." To the right is a button labeled "Empty bucket". Below this, a box contains the text "Delete bucket \"my-static-website-006\"?" and instructions "To confirm deletion, enter the name of the bucket in the text input field." A text input field contains "my-static-website-006". At the bottom are "Cancel" and "Delete bucket" buttons.

Having emptied the bucket, you may now go ahead and delete it.

The screenshot shows the AWS S3 console with the URL us-east-2.console.aws.amazon.com/s3/bucket/my-static-website-006/empty?region=us-east-2&bucketType=static. The page title is "Empty bucket". A yellow warning box lists: "Emptying the bucket deletes all objects in the bucket and cannot be undone.", "Objects added to the bucket while the empty bucket action is in progress might be deleted.", and "To prevent new objects from being added to this bucket while the empty bucket action is in progress, you might need to update your bucket policy to stop objects from being added to the bucket.". Below is a link "Learn more". A blue box contains the text "If your bucket contains a large number of objects, creating a lifecycle rule to delete all objects in the bucket might be a more efficient way of emptying your bucket." with a link "Learn more". Below this is a box for confirming deletion with the text "Permanently delete all objects in bucket \"my-static-website-006\"?" and a text input field containing "permanently delete". At the bottom are "Cancel" and "Empty" buttons.

The screenshot shows the AWS S3 console with the URL us-east-2.console.aws.amazon.com/s3/bucket/my-static-website-006/empty?region=us-east-2&bucketType=static. A green success message box says "Successfully emptied bucket \"my-static-website-006\". View details below. If you want to delete this bucket, use the [delete bucket configuration](#)". Below is a box titled "Empty bucket: status" with a note "The details below are no longer available after you navigate away from this page." A summary table shows:

Source	Successfully deleted	Failed to delete
s3://my-static-website-006	2 objects, 220.2 KB	0 objects