Personal Blog on IBM Cloud Static Web Apps

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PHASE 1:DOCUMENTATION SUBMISSION

Project Definition:

The project is to create a personal travel blog hosted on IBM Cloud Static Web Apps. The goal is to share travel adventures, tips, and captivating photos to inspire others to explore the world and create unforgettable memories. This involves designing the blog structure, creating engaging content, setting up the IBM Cloud Static Web Apps, and ensuring ease of updating the blog.

Abstract:

Our Project is a captivating personal travel blog hosted on IBM Cloud Static Web Apps. This blog is an immersive window into the adventures, insights, and captivating moments experienced by an avid explorer. From the pristine beaches of Bali to the bustling streets of Tokyo, every blog post is a narrative that takes readers on a visual journey through picturesque destinations and shares invaluable travel tips.

The blog's IBM Cloud Static Web Apps hosting ensures seamless updates, making it easy for the author to chronicle their ongoing adventures. With engaging content, stunning photography, and insightful travel guides, Our Project inspires readers to embark on their own journeys and discover the beauty of the world.

Explore the world through the eyes of a passionate traveler, and let our project be your guide to forging unforgettable memories and igniting your own wanderlust.

Hosting Static Websites on IBM Cloud:

This blog post explains how to host a static website on IBM Cloud. These websites are rendered client-side by the browser from static assets, like HTML, CSS and JS files. They do not need a server-side component to create pages dynamically at runtime. Static websites are often combined with backend APIs to create Single Page Applications.

Hosting static websites on IBM Cloud uses Cloud Object Storage (COS) and Cloud Internet Services (CIS) (with Page Rules and Edge Functions).

Serving static assets:

IBM Cloud Object Storage is a scalable storage solution for cloud applications. Files are managed through a RESTful HTTP API and stored in user-defined collections called “buckets”. Bucket files are returned as HTTP responses from HTTP GET requests.

COS supports an optional “anonymous read-only access” setting for buckets. This means all files in the bucket will be accessible using anonymous HTTP GET requests.

Putting HTML, CSS and JS files in a public bucket allows static websites to be served directly by COS. Users are charged for bandwidth used and HTTP requests received for all bucket files.

Steps to setup our personal blogs:

Sign up for IBM Cloud:

Signing up with IBM cloud plays a crucial step in create our blog and IBM helps us in hosting our blog as a static Website.

Create a Static Website:

Develop your travel blog website using HTML, CSS, and JavaScript. You can use popular static site generators like Jekyll, Hugo, or Gatsby to make the development process easier.

Host Your Website on GitHub:

Host your website's source code on GitHub. GitHub is often used for version control and hosting static websites. Make sure your code is in a public GitHub repository.

Set Up IBM Cloud Static Web Apps:

In the IBM Cloud Dashboard, navigate to the "Static Web Apps" service.

Create a new Static Web App and connect it to your GitHub repository. This will enable automatic deployments whenever you update your blog.

Design Your Blog:

Design your travel blog with an appealing layout, fonts, and color schemes. Ensure it's responsive for various screen sizes.

Add Content:

Start adding your travel content, including blog posts, photos, and videos. Use HTML or markdown for your blog posts and include captivating images to illustrate your adventures.

Enable Comments:

Consider integrating a commenting system like Disqus or Facebook Comments to engage with your readers.

SEO and Analytics:

Optimize your blog for search engines (SEO) and integrate analytics tools like Google Analytics to track visitor statistics.

Social Media Integration:

Add social media sharing buttons to encourage readers to share your blog posts on their social networks.

Regular Updates:

Update your blog with new travel experiences, tips, and photos regularly to keep your audience engaged.

Promote Your Blog:

Share your blog posts on social media platforms, travel forums, and with friends and family to increase your blog's visibility.

Key Objectives for Personal Blog on IBM Cloud Static Web Apps:

Content Quality and Consistency:

Objective: Create high-quality, engaging, and informative blog posts.

Key Results: Publish a minimum number of blog posts per month, maintain a consistent posting schedule, and gather positive reader feedback.

User Experience:

Objective: Ensure a seamless and enjoyable user experience for visitors.

Key Results: Optimize website speed and performance, implement responsive design for various devices, and gather user feedback to make improvements.

SEO and Traffic Growth:

Objective: Improve search engine rankings and increase website traffic.

Key Results: Optimize blog posts for SEO, monitor keyword rankings, track organic traffic growth, and implement a content marketing strategy.

Engagement and Interactivity:

Objective: Encourage user engagement and interaction on your blog.

Key Results: Implement features like comments, social sharing buttons, and interactive elements in your blog posts, and track user engagement metrics.

Branding and Design:

Objective: Create a strong brand identity and appealing design.

Key Results: Maintain a consistent brand across your blog, use a visually appealing layout, and update your blog's design as needed.

Security and Privacy:

Objective: Ensure the security and privacy of your blog and user data.

Key Results: Regularly update plugins and themes, use HTTPS, implement security best practices, and comply with privacy regulations like GDPR.

Analytics and Insights:

Objective: Gather data to make informed decisions and measure your blog's success.

Key Results: Set up analytics tools (e.g., Google Analytics), track user behavior, monitor conversion rates, and use data to refine your content and strategy.

Community Building:

Objective: Build a community around your blog.

Key Results: Engage with your readers through comments and social media, respond to feedback, and foster a loyal readership.

Backup and Recovery:

Objective: Ensure the safety of your blog's data.

Key Results: Implement regular backups of your website and have a recovery plan in place in case of data loss or site issues.

Accessibility and Inclusivity:

Objective: Make your blog accessible to all users.

Key Results: Ensure compliance with web accessibility standards (e.g., WCAG), and regularly test your blog for accessibility improvements.

TO CREATE IBM CLOUD ACCOUNT:

Create your account:

First, create an account by using your existing IBMid or a new IBMid. If your company is registered to use a federated ID for single sign-on (SSO), you can use your federated ID instead.

Login ID	Details

Existing IBMid	If you already have an IBMid, sign up for IBM Cloud with your existing credentials that you use for other IBM® products and services.
New IBMid	If you don't yet have an IBMid, you can create one when you sign up. With an IBMid, you can use one username to log in to all IBM products and services, including IBM Cloud.
Federated ID	If your company already requested to register the user credentials from your company's domain with IBM, you can sign up for IBM Cloud by using the credentials that you already use for your company's login. You must enter a phone number when you sign up.

Table 1. ID options for creating an account

Using your IBMid

If you're not a part of a company that uses a federated ID, use your IBMid to create your account.

1. Go to the IBM Cloud login page, and click Create an IBM Cloud account.
2. Enter your IBMid email address. If you don't have an existing IBMid, an ID is created based on the email that you enter.
3. Complete the remaining fields with your information.
   Note: You are prompted for your credit card information to verify your identity and secure your account. You can try out IBM Cloud for free and only pay for billable services that you choose to use, with no long-term contracts or commitments.
4. Click Create account.
5. Confirm your account by clicking the link in the confirmation email that is sent to your provided email address.

Using a federated ID

A federated ID is an ID within a company's domain that is registered with IBM so that the domain and user credentials can be used to access IBM web applications. You can sign up for IBM Cloud with a federated ID only if your company is already registered with IBM. Registering a company's domain with IBM enables users to log in to IBM products and services by using their existing company user credentials. Authentication is then handled by your company's identity provider (IdP) through single sign-on (SSO).

IBM uses the Security Assertion Markup Language 2.0 (SAML 2.0) for this identity federation. SAML 2.0 is a standard version for exchanging authentication data between security domains. It's an XML-based protocol that uses a security token that contains assertions to pass information between the organizations IdP, and the IBM Rely Party (RP), otherwise known as the Service Provider.

For information about how to register your company for a federated ID, see the IBMid

[Enterprise Federation Adoption Guide]. An IBM sponsor, such as an offering advocate or client advocate, is required when you request to register federated IDs.

Upgrade to a Pay-As-You-Go account

If you have a Lite account, you can upgrade to a Pay-As-You-Go account to access the full IBM Cloud catalog.

1. Click Manage > Account.
2. Select Account settings, and click Add credit card.
3. Enter your credit card information.

Set up account MFA settings

By default, users in your account verify themselves by logging in with a username and password. To require users to use more secure authentication factors, complete the following steps to set up multifactor authentication (MFA).

Important: Setting up MFA in your account affects all members of the account. This means that if users of your account are members of multiple IBM Cloud accounts, they must enroll for MFA at their next login even if they don't intend to use resources in the secured account.

1. Go to Manage > Access (IAM), and select Settings.
2. Update the current authentication setting by clicking Edit in the Authentication section.
3. Select the type of MFA to enable in your account.
    - MFA for users with an IBMid: Require users to authenticate by using an IBMid, password, and time-based one-time passcode (TOTP). You can enable this option for all users or nonfederated users.
    - MFA for all users (IBMid & supported IdPs): Require users to authenticate by using one of the following MFA factors. This option applies to users who are using either an IBMid or an external IdP.
        - Email-based MFA: Users authenticate by using a security passcode that is sent through email.
        - TOTP MFA: Users authenticate by using a time-based one-time passcode (TOTP) with an authenticator app, such as IBM Security Verify or Google Authenticator.
        - U2F MFA: Users authenticate by using a hardware security key that generates a six-digit numerical code. This factor offers the highest level of security.
4. Click Update.

Note: The first time that you log in to your account after updating your MFA settings, you need to verify your identity by using two different verification methods. Methods for verification include email, text, or phone call, and you can use any combination of those options to verify your identity. After you verify your identity, you set up and provide details for your authentication factor.

Estimate your costs

Complete the following steps to get an estimate of how much your usage might cost:

1. Go to the catalog , and select Type > Services.
2. Select a service that you're interested in.
3. Select a pricing plan, enter other configuration details if needed, and click Add to estimate.
   By default, the estimator shows the pricing and billing currency for your location. Pricing can vary by region. If you're estimating costs for a different location, select the correct region to view accurate pricing.
4. Add the calculated cost to your estimate by clicking Save.
5. When you're done adding products to your estimate, click Review estimate to a detailed view of your estimate.
   Tip: You can download a CSV or XSLX of the estimate by clicking Download.

Manage your invoices and payment methods

Before you start working with resources in your account, familiarize yourself with where you can manage your payment method and access your invoices.

Managing your payment method

To manage your payment method for an account that's billed in USD currency, go to Manage > Billing and usage, and select Payments.
To manage your payment method for an account that's billed in non-USD currency, go to IBM Billing .

Accessing your invoices

To access an invoice for an account that's billed in USD currency, go to Manage > Billing and usage, and select Invoices.
To access an invoice for an account that's billed in non-USD currency, go to Manage > Billing and usage, and select Invoices. Then, click IBM Invoices.

Set preferences for receiving notifications

Complete the following steps to set your preferences for receiving various types of notifications:

1. To receive notifications about IBM Cloud platform-related, or resource-related items, go to the Avatar icon Profile, and select Notification preferences.
   When you set IBM Cloud platform notifications, you receive email notifications that are associated with only the platform. You do not receive notifications about events that are associated with IBM Cloud services. By default, all

platform notifications are turned off.
If you update your preferences on resource activity, such as incidents, maintenance, security bulletins, or infrastructure service updates, the notifications are for only the services you use or the devices that you have provisioned. By default, all infrastructure notifications are turned off.

2. To receive spending notifications, go to Manage > Billing and usage > Spending notifications. Or, you can access it directly from the Notification preferences page by scrolling down to Billing and Usage and clicking Manage.

You receive notifications when you reach 80%, 90%, and 100% of the spending thresholds that you specify.

Create your resource groups

Resource groups provide a way for you to easily manage access to multiple resources and to view billing usage for a set of resources. With your Pay-As-You-Go account, you can create more resource groups in addition to the default resource group that's created for you.

1. Go to Manage > Account > Account resources, and select Resource groups.
2. Click Create.
3. Enter a name for your resource group, and click Add.

See What makes a good resource group strategy? for details about how to optimally organize resources in your resource groups.

Set up access

IAM access groups provide a way for you to quickly and easily assign access to multiple resources in your account at one time.

1. Create an access group.
    a. Go to Manage > Access (IAM), and select Access Groups.
    b. Click Create.
    c. Enter a name for your group, and click Create. For example, if you know multiple users in your account will need to be able to apply subscription codes, track usage, or perform other billed-related tasks, you might name your group `Billing-Editor-Access`.
2. Assign access to the group.
    a. Go to Access policies, and select Assign access.
    b. Select the type of access to assign:
        IAM services: Assigns access to IAM-enabled services, which are services that managed by using IAM access control and assigned to a resource group.
        Account management services: Assigns access to manage platform

services, such as billing, license and entitlements, and enterprises.

c. Select all roles that apply.
d. Click Add > Assign.

See What makes a good resource group strategy? for details about how to best set up your access groups.

Invite users to your account

You're ready to invite users to your account and grant them access based on the resources they will work with and the tasks they'll perform. If you want users to create resources from the catalog and assign the resources to a resource group, the following access is required:

Viewer role or higher on the resource group.
Editor or Administrator role on the service.

Complete the following steps:

1. Go to Manage > Access (IAM), and select Users.
2. Click Invite users.
3. Specify the email address of the user. If you are inviting more than one user, they are all assigned the same access.
4. Add the user to one or more of the access groups that you created in the previous step.
5. Click Invite.