PHP (https://cloud.google.com/php/) Guides

Using Cloud Storage with PHP

This part of the PHP Bookshelf app tutorial shows how to store images in Cloud Storage (https://cloud.google.com/storage).

This page is part of a multipage tutorial. To start from the beginning and read the setup instructions, go to PHP Bookshelf app (https://cloud.google.com/php/getting-started/tutorial-app).

Creating a Cloud Storage bucket

The following instructions detail how to create a Cloud Storage bucket. Buckets are the basic containers that hold your data in Cloud Storage.

> **Note:** You can choose any name (https://cloud.google.com/storage/docs/naming) for your Cloud Storage bucket. It's a good practice to give your bucket the same name as your project ID. Bucket names must be unique across all of Google Cloud, so it's possible that you can't use your project ID as the bucket name.

1. In your terminal window, create a Cloud Storage bucket, where **YOUR_BUCKET_NAME** represents the name of your bucket:

```
gsutil mb gs://YOUR_BUCKET_NAME
```

2. To view uploaded images in the Bookshelf app, set the bucket's default access control list (ACL) to `public-read`:

```
gsutil defacl set public-read gs://YOUR_BUCKET_NAME
```

Configuring settings

Copy your `settings.yml` file from the [Structured data](https://cloud.google.com/php/getting-started/using-structured-data) (https://cloud.google.com/php/getting-started/using-structured-data) part of this tutorial to the `getting-started-php/3-cloud-storage` directory.

Installing dependencies

In the `3-cloud-storage` directory, enter this command:

```
composer install
```

Running the app on your local machine

1. Start a local web server:

   ```
   php -S localhost:8000 -t web
   ```

2. In your browser, enter this address:

   http://localhost:8000 (http://localhost:8000)

Now you can browse the app's web pages, add books with cover images, edit books, and delete books.

Deploying the app to the App Engine flexible environment

1. In your terminal window, deploy the sample app:

   ```
   gcloud app deploy
   ```

2. In your browser, enter this address. Replace `[YOUR_PROJECT_ID]` with your Google Cloud project ID:

   ```
   https://[YOUR_PROJECT_ID].appspot.com
   ```
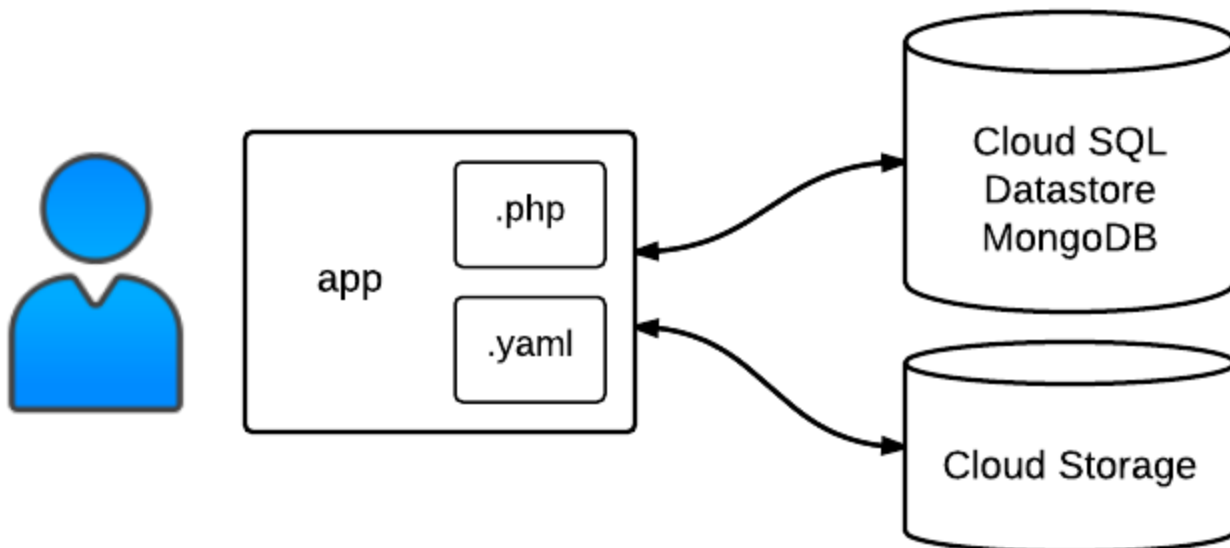
If you update your app, you can deploy the updated version by entering the same command
you used when you first deployed the app. The new deployment creates a version of your app
and promotes it to the default version.

The older versions of your app remain, as do their associated virtual machine (VM) instances.
Be aware that all of these app versions and VM instances are billable resources.

You can reduce costs by deleting the non-default versions of your app
(https://cloud.google.com/php/getting-started/using-cloud-storage#delete_non-
default_versions_of_your_app)
.

When you finish this tutorial, you can avoid continued billing by deleting the resources you
created. See Cleaning up (https://cloud.google.com/php/getting-started/using-cloud-storage#clean-up)
for more detail.

App structure

The app uses Cloud Storage to store binary data (pictures in this case), while continuing to use
a structured database for the book information (either Datastore, Cloud SQL, or MongoDB).

Understanding the code

The template for listing the books in your database receives a `books` array variable. For each book in the array, the template displays the cover image specified by the `book.imageUrl`. If the book doesn't have an `imageUrl` member, the template displays a default image:

3-cloud-storage/templates/list.html.twig
(https://github.com/GoogleCloudPlatform/getting-started-php/blob/steps/3-cloud-storage/templates/list.html.twig)

UDPLATFORM/GETTING-STARTED-PHP/BLOB/STEPS/3-CLOUD-STORAGE/TEMPLATES/LIST.HTML.TWIG)

```
<div class="media-left">
  {% if book.image_url %}
    <img src="{{book.image_url}}">
  {% else %}
    <img src="http://placekitten.com/g/128/192">
  {% endif %}
</div>
```

The template for displaying an individual book does the same thing:

3-cloud-storage/templates/view.html.twig
(https://github.com/GoogleCloudPlatform/getting-started-php/blob/steps/3-cloud-storage/templates/view.html.twig)

JDPLATFORM/GETTING-STARTED-PHP/BLOB/STEPS/3-CLOUD-STORAGE/TEMPLATES/VIEW.HTML.TWIG)

```
<div class="media-left">
  <img class="book-image"
       src="{{ book.image_url ?: 'http://placekitten.com/g/128/192' }}">
</div>
```

The form for entering or editing a book includes a field where the user can enter a URL for the cover image:

3-cloud-storage/templates/form.html.twig
(https://github.com/GoogleCloudPlatform/getting-started-php/blob/steps/3-cloud-storage/templates/form.html.twig)

DPLATFORM/GETTING-STARTED-PHP/BLOB/STEPS/3-CLOUD-STORAGE/TEMPLATES/FORM.HTML.TWIG)

```
<div class="form-group">
  <label for="image">Cover Image</label>
  <input type="file" name="image" id="image" class="form-control"/>
</div>
```

```
<div class="form-group hidden">
  <label for="image_url">Cover Image URL</label>
  <input type="text" name="image_url" id="image_url" value="{{book.image_url}}" clas
</div>
```

When the user deletes a book, the handler for the `POST '/books/{id}/delete'` route deletes the book's cover image from Cloud Storage. The `$storage` variable is an instance of the `CloudStorage` class, which is defined in `src/FileSystem/CloudStorage.php`:

[3-cloud-storage/src/controllers.php](https://github.com/GoogleCloudPlatform/getting-started-php/blob/steps/3-cloud-storage/src/controllers.php)
 (https://github.com/GoogleCloudPlatform/getting-started-php/blob/steps/3-cloud-storage/src/controllers.php)

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```
if (!empty($book['image_url'])) {
    /** @var CloudStorage $storage */
    $storage = $app['bookshelf.storage'];
    $storage->deleteFile($book['image_url']);
}
```

Cleaning up

To avoid incurring charges to your Google Cloud Platform account for the resources used in this tutorial:

Delete the project

The easiest way to eliminate billing is to delete the project that you created for the tutorial.

To delete the project:

> **Caution**: Deleting a project has the following effects:
>
> - **Everything in the project is deleted.** If you used an existing project for this tutorial, when you delete it, you also delete any other work you've done in the project.
>
> - **Custom project IDs are lost.** When you created this project, you might have created a custom project ID that you want to use in the future. To preserve the URLs that use the project ID, such

as an `appspot.com` URL, delete selected resources inside the project instead of deleting the
whole project.

If you plan to explore multiple tutorials and quickstarts, reusing projects can help you avoid exceeding
project quota limits.

1. In the Cloud Console, go to the **Manage resources** page.

   GO TO THE MANAGE RESOURCES PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/IAM-ADMIN/PRO

2. In the project list, select the project you want to delete and click **Delete** 🗑 .

3. In the dialog, type the project ID, and then click **Shut down** to delete the project.

Delete non-default versions of your app

If you don't want to delete your project, you can reduce costs by deleting the non-default
versions of your app.

To delete an app version:

1. In the Cloud Console, go to the **Versions** page for App Engine.

   GO TO THE VERSIONS PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/APPENGINE/VERSIONS)

2. Select the checkbox for the non-default app version you want to delete.

   Note: The only way you can delete the default version of your App Engine app is by deleting your
   project. However, you can stop the default version in the Cloud Console
   (https://console.cloud.google.com/appengine/versions). This action shuts down all instances
   associated with the version. You can restart these instances later if needed.

   In the App Engine standard environment, you can stop the default version only if your app has manual
   or basic scaling.

3. Click **Delete** 🗑 to delete the app version.

Delete your Cloud SQL instance

To delete a Cloud SQL instance:

1. In the Cloud Console, go to the **SQL Instances** page.

   GO TO THE SQL INSTANCES PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/SQL/INSTANCES)

2. Click the name of the SQL instance you want to delete.

3. Click **Delete** 🗑 to delete the instance.

Delete your Cloud Storage bucket

To delete a Cloud Storage bucket:

1. In the Cloud Console, go to the **Cloud Storage Browser** page.

   GO TO THE CLOUD STORAGE BROWSER PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/STORAGE/

2. Click the checkbox for the bucket you want to delete.

3. Click **Delete** 🗑 to delete the bucket.

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