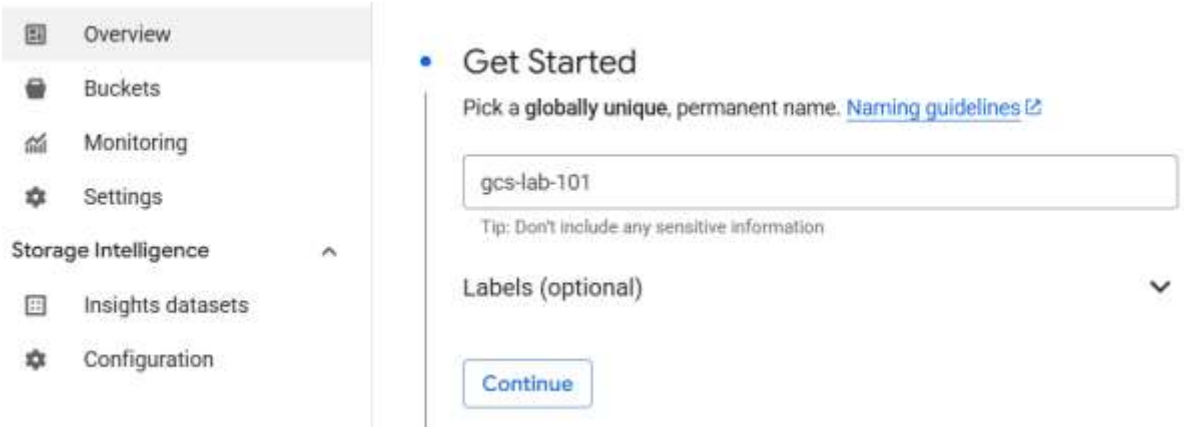
Introduction to Google Cloud Storage - Buckets

Steps:

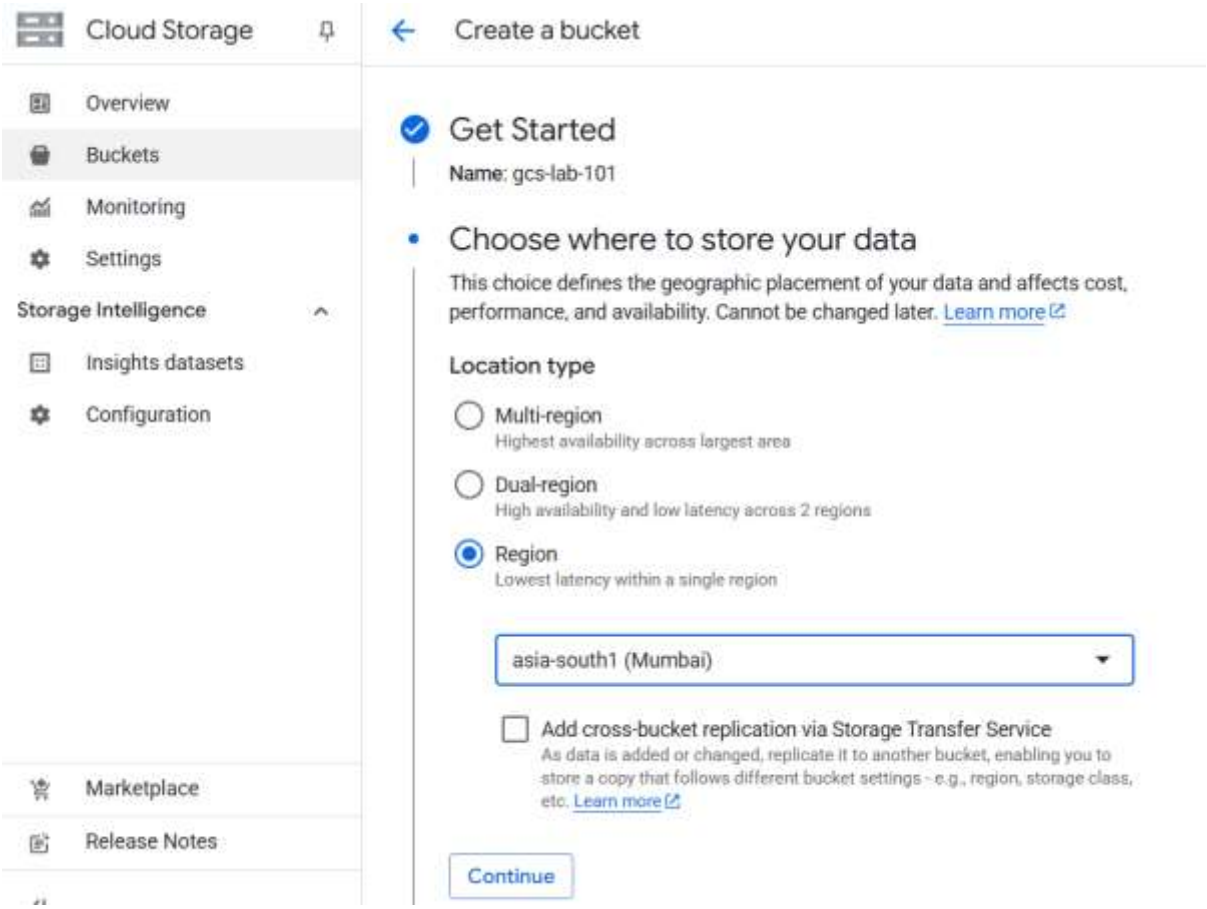
1. **Set Up: (Optional)**
    - Open Google Cloud Console.
    - Create a new project named gcs-lab-101.
2. **Create a Bucket:**
    - Go to **Cloud Storage > Buckets > Create**.
    - Name it uniquely (e.g., gcs-lab-101-<yourname>).
    - Choose **Standard** storage class.
    - Choose a region (e.g., us-central1).
    - Leave default settings and create the bucket.
3. **Upload an Object:**
    - Click on your bucket.
    - Upload a sample file (e.g., sample.txt).
    - Confirm successful upload.
4. **Set Object-Level Permissions:**
    - Click on the uploaded file > Permissions > Add principal.
    - Grant Storage Object Viewer to a service account or another user.
5. **Download/Delete Object:**
    - Use the GCS web interface to download.
    - Then delete the object.

To begin with the Lab

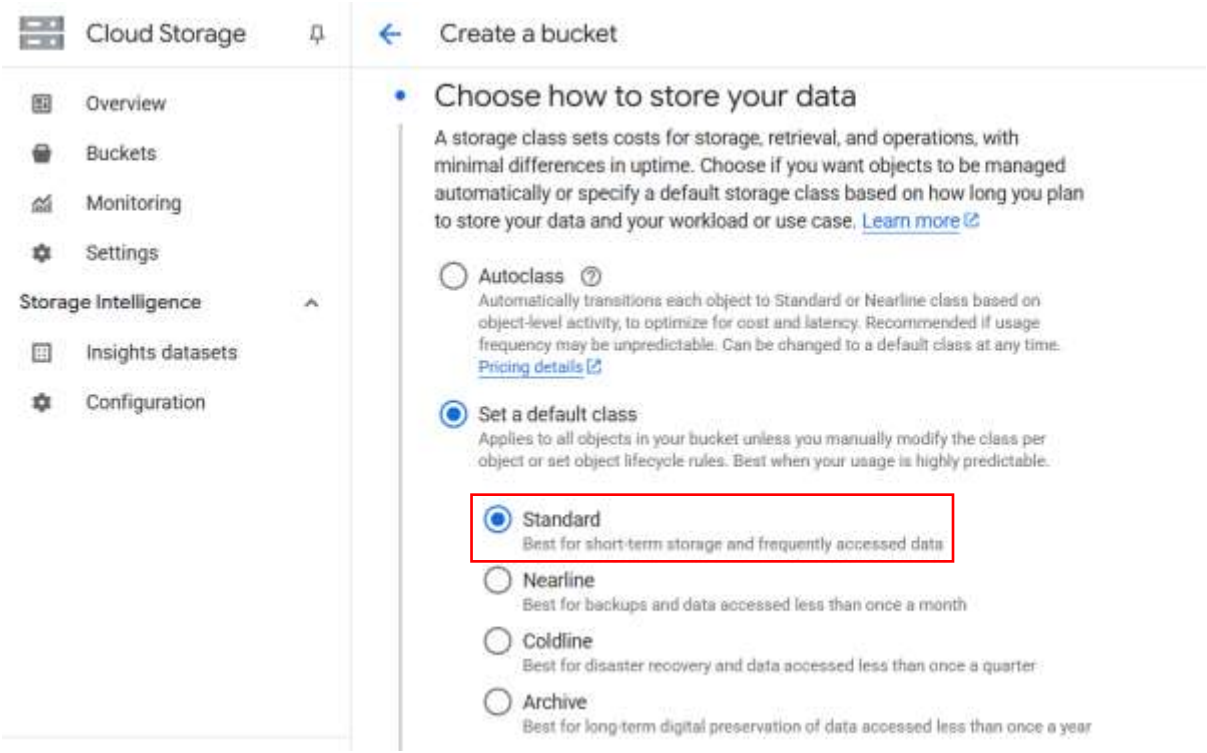
1. Give a unique name to your bucket and click on continue.



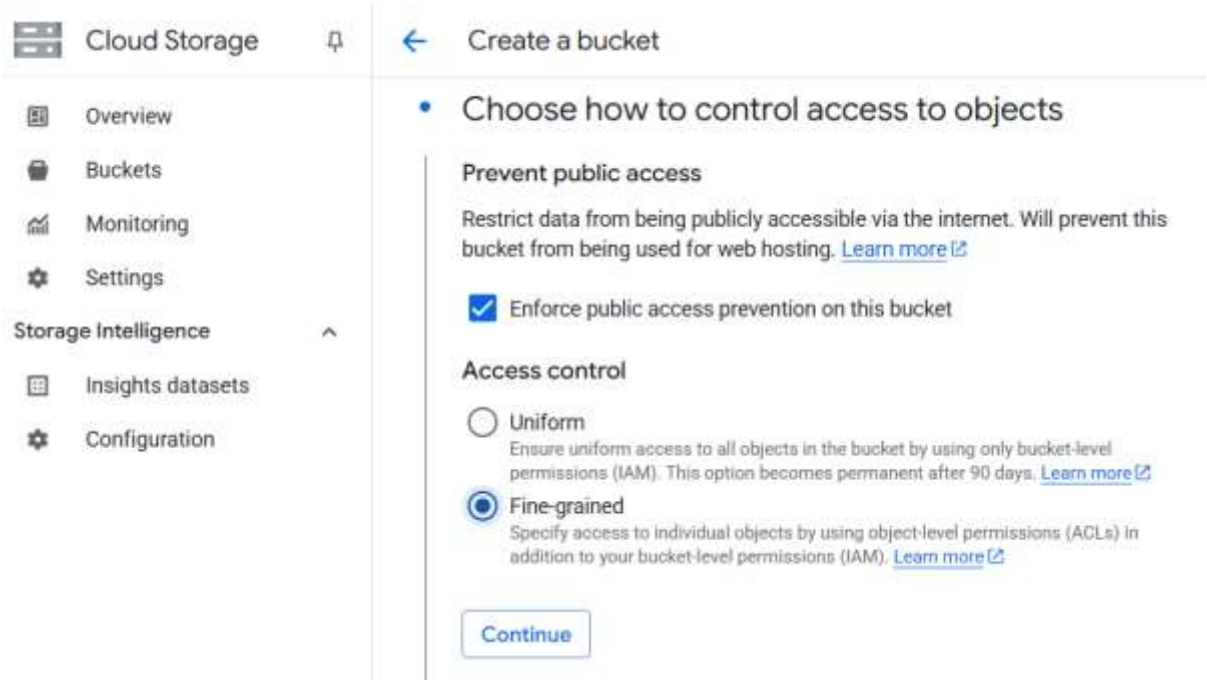
2. Now, for the Location type, you need to choose Region. (Choose your preferred region) Click on continue.



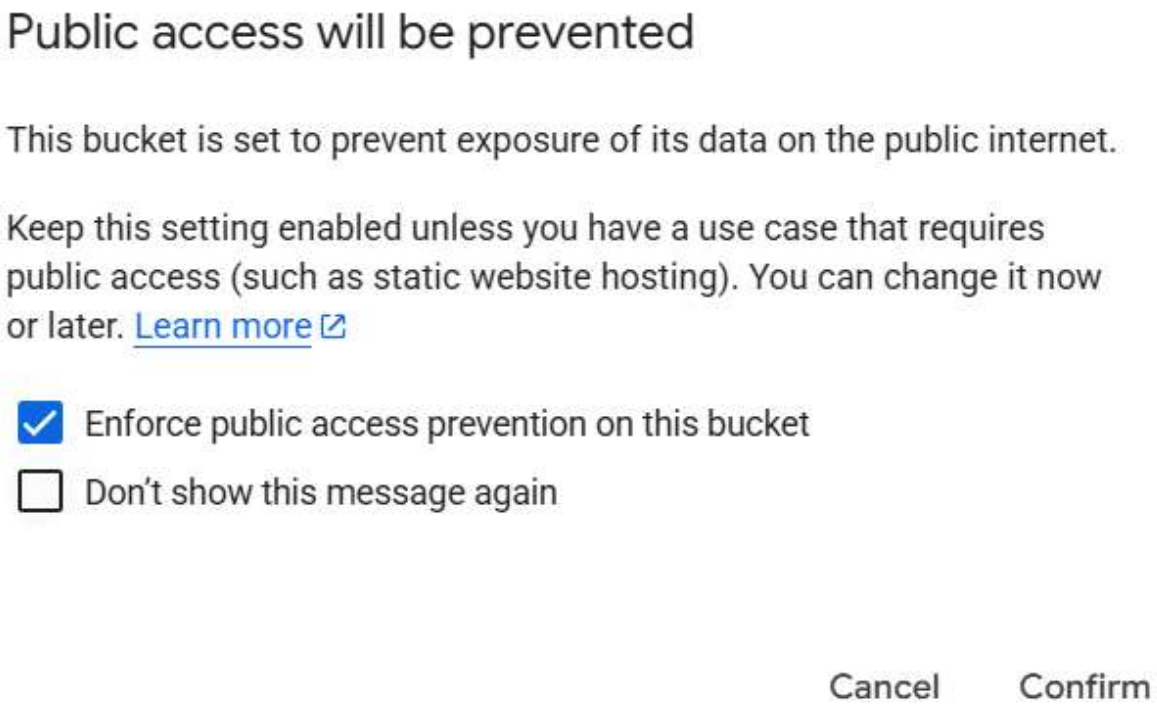
3. Then, for the next step, “How to store your data”, simply set the default class to **Standard**.



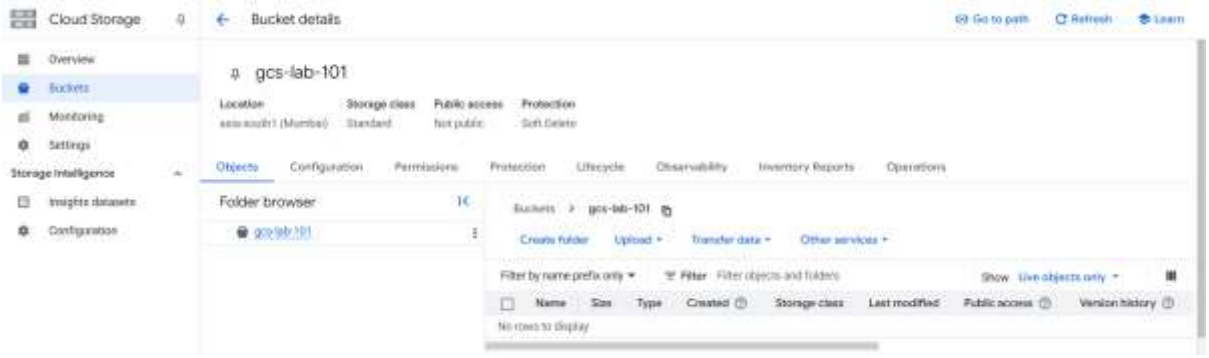
4. Then, for how to control access to objects, choose Fine-grained. Click on continue.
5. Now, keep everything to default and create your bucket.



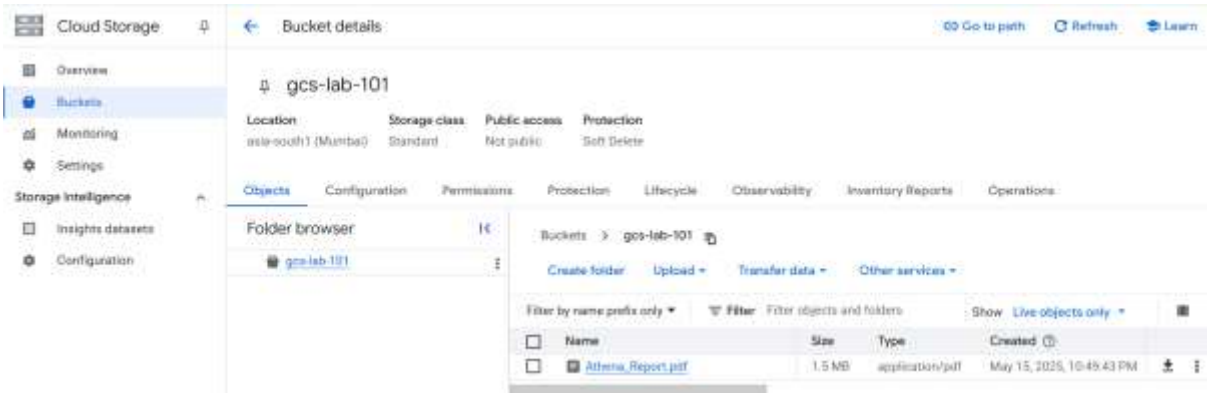
6. In the end it will give this pop up message, keep it to default and click on confirm.



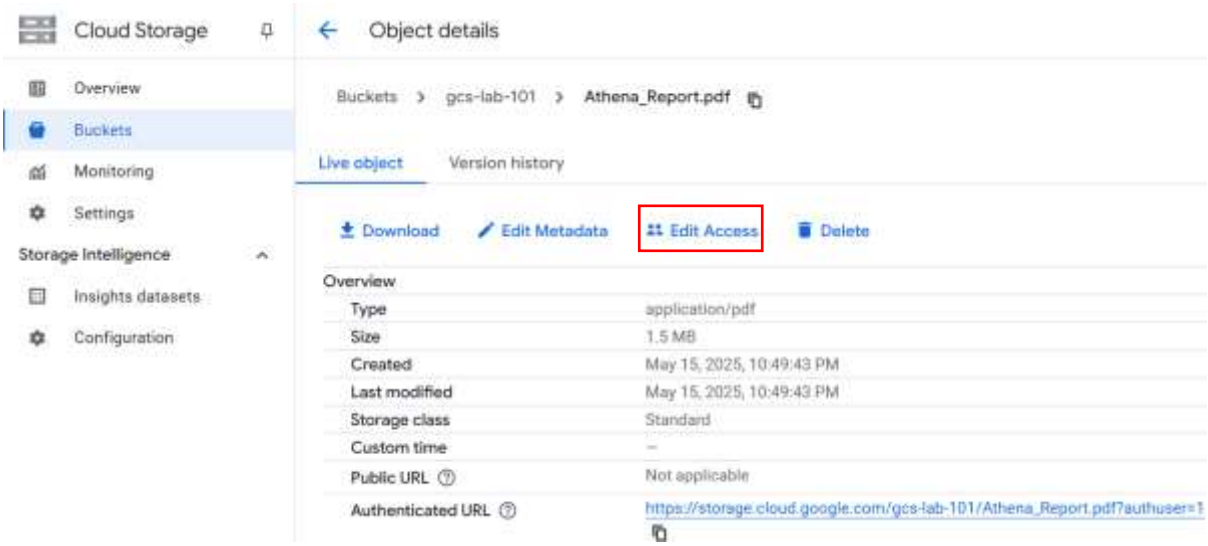
7. Here you can see that our bucket has been created, now we are going to upload an object to this bucket.



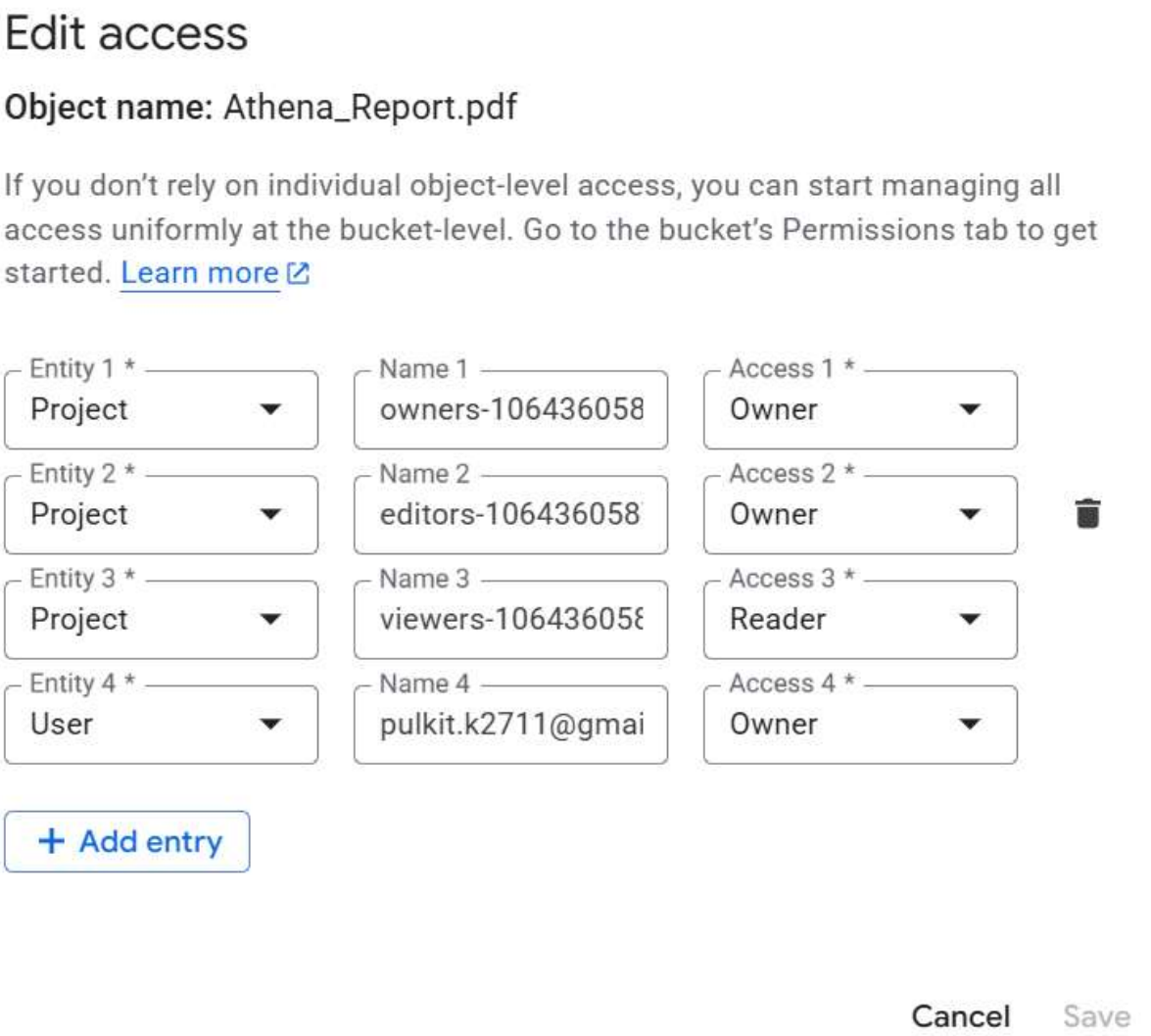
8. You can see that we have uploaded an object to our bucket. Now we will edit the permission for this object.



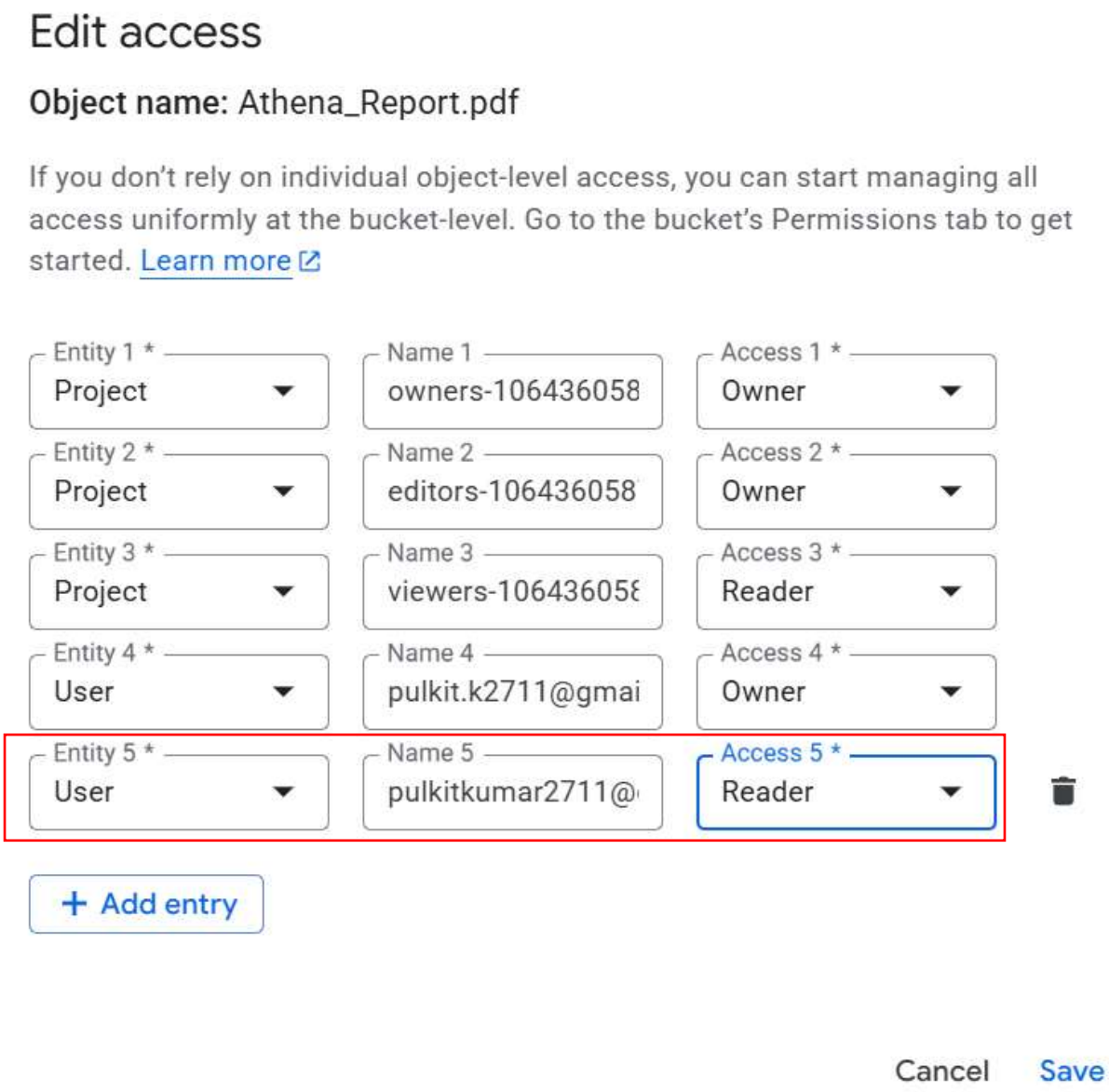
9. Click on the object to come inside of it and click on Edit access to manage the access of your object.



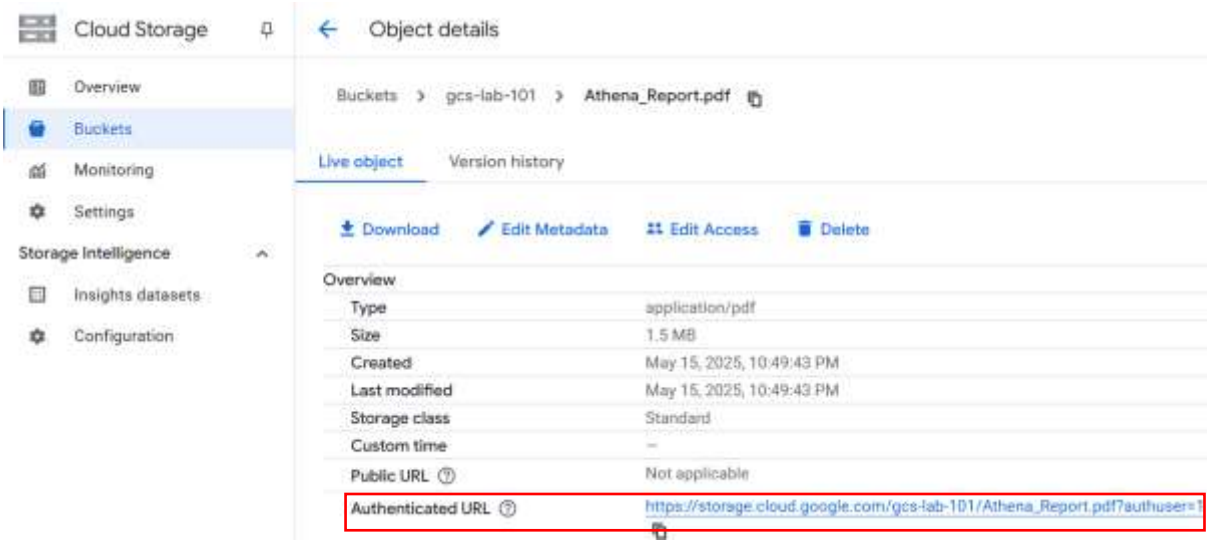
10. Here, you can see that in the edit access area, we already have some access defined.



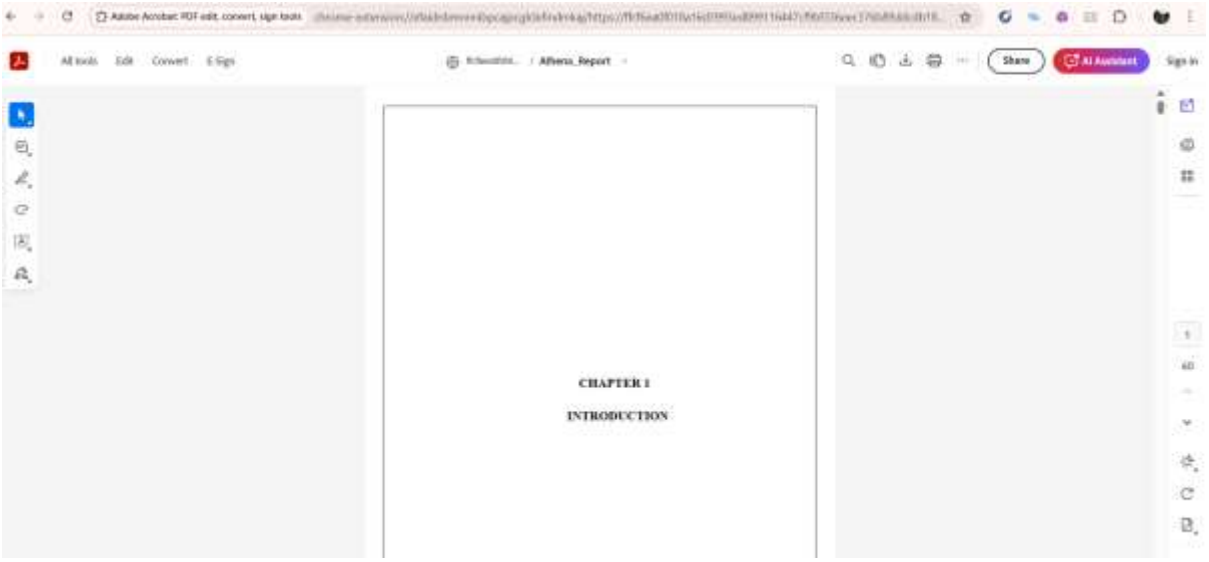
11. Now we are going to add another access to it, for that, click on Add entry.
12. We are going to add a user entity for the name area, just enter an email address on which you want to give access for this object.
13. For the access choose Reader role so that the user can only read the object. Click on save.



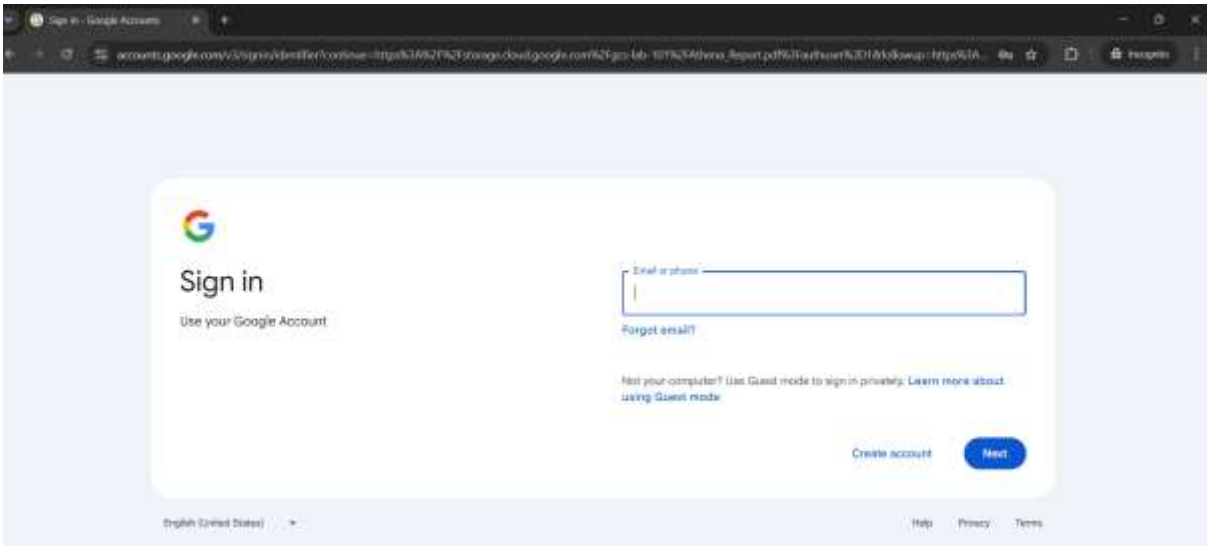
14. Now you need to copy the authenticated URL and paste it in the browser where you are logged in with the user email address that you have mentioned in the access.



15. Here you can see that our pdf has been opened successfully.



16. But if you try to access the URL in incognito mode, it will ask you to sign in with the user you have defined in the access area.



17. Now let us try to access this object using an email that has not been given access, then you will see that it is giving the Error 403.