

Authenticating with a service account key file

Manually create and obtain service account credentials to use BigQuery when an application is deployed on premises or to other public clouds. You can set the environment variable to [load the credentials using Application Default Credentials](#)

(/bigquery/docs/authentication/getting-started), or you can specify the path to load the credentials manually in your application code.

This guide shows you how to load the credentials from a file.

Before you begin

- Follow [getting started with authentication](#) (/docs/authentication/getting-started) to set up and download service account credentials.

Loading credentials from a file

Create credentials in your application from the service account file. Then use the credentials to create a service object with the [BigQuery client libraries](#) (/bigquery/docs/reference/libraries).

[C#Java](#) (#java)[Node.js](#) (#node.js)[Python](#) (#python)

Before trying this sample, follow the C# setup instructions in the [BigQuery Quickstart Using Client Libraries](#) (/bigquery/docs/quickstarts/quickstart-client-libraries). For more information, see the [BigQuery C# API reference documentation](#) (https://googleapis.github.io/google-cloud-dotnet/docs/Google.Cloud.BigQuery.V2/).

Load the credentials from the JSON file using `GoogleCredential.FromStream(Stream)`.

(https://developers.google.com/api-client-

library/dotnet/reference/1.10.0/classGoogle_1_1Apis_1_1Auth_1_1OAuth2_1_1GoogleCredential#a3daca048765c959a4f9c34294f4efe06)

. After you create a `GoogleCredential`, pass it to `BigQueryClient.Create(String, GoogleCredential)`.

(https://googleapis.github.io/google-cloud-

dotnet/docs/Google.Cloud.BigQuery.V2/api/Google.Cloud.BigQuery.V2.BigQueryClient#Google_Cloud_BigQuery_V2_BigQueryClient_Create_System_String_Google_Apis_Auth_OAuth2_GoogleCredential_)

to create the BigQuery service object.

```
udPlatform/dotnet-docs-samples/blob/master/bigquery/api/Snippets/AuthenticateServiceAccount.cs)
```

```
var credentials = GoogleCredential.FromFile(jsonPath);  
var client = BigQueryClient.Create(projectId, credentials);
```

What's next

- Learn about [other ways to authenticate your application to access the BigQuery API](/bigquery/docs/authentication) (/bigquery/docs/authentication).
- Learn more about [authenticating server to server production applications](/docs/authentication/production) (/docs/authentication/production).

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