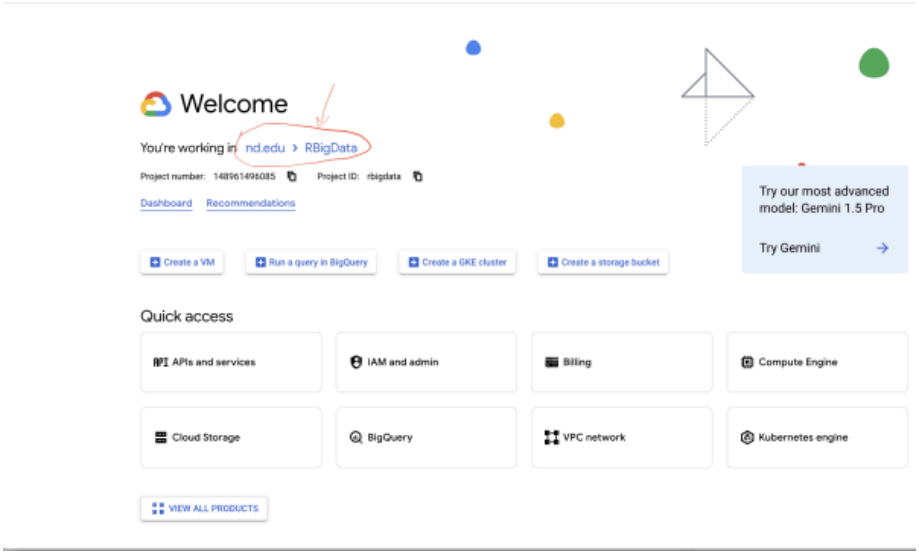
Use Google Cloud

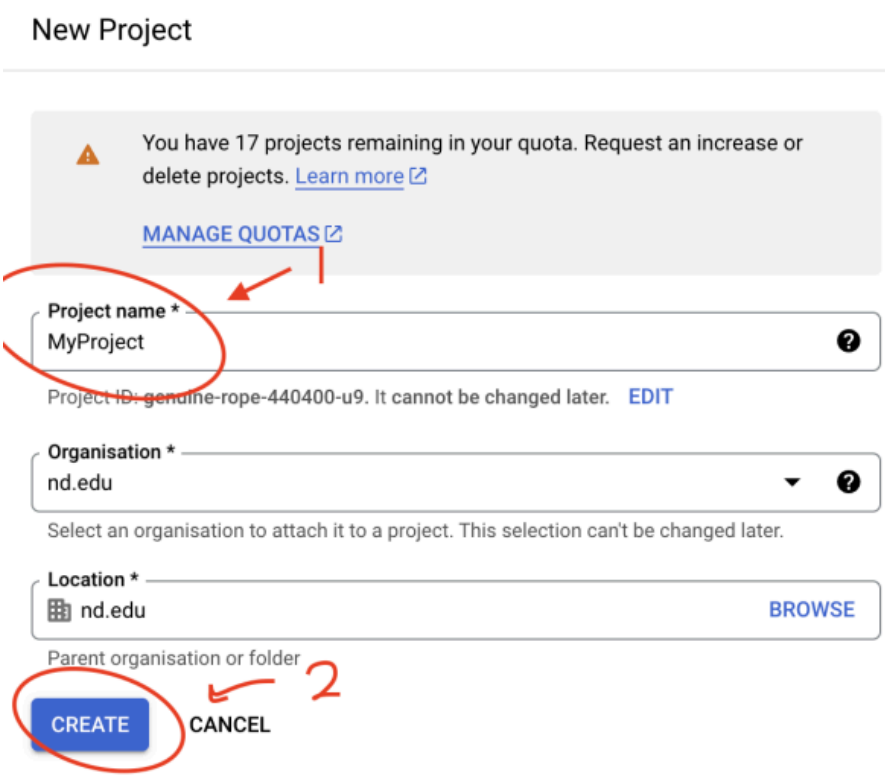
Enable the API

To use Google Cloud, we need to set up the API services. Here is a brief tutorial on how to do it based on enabling and using the Google Cloud Vision.

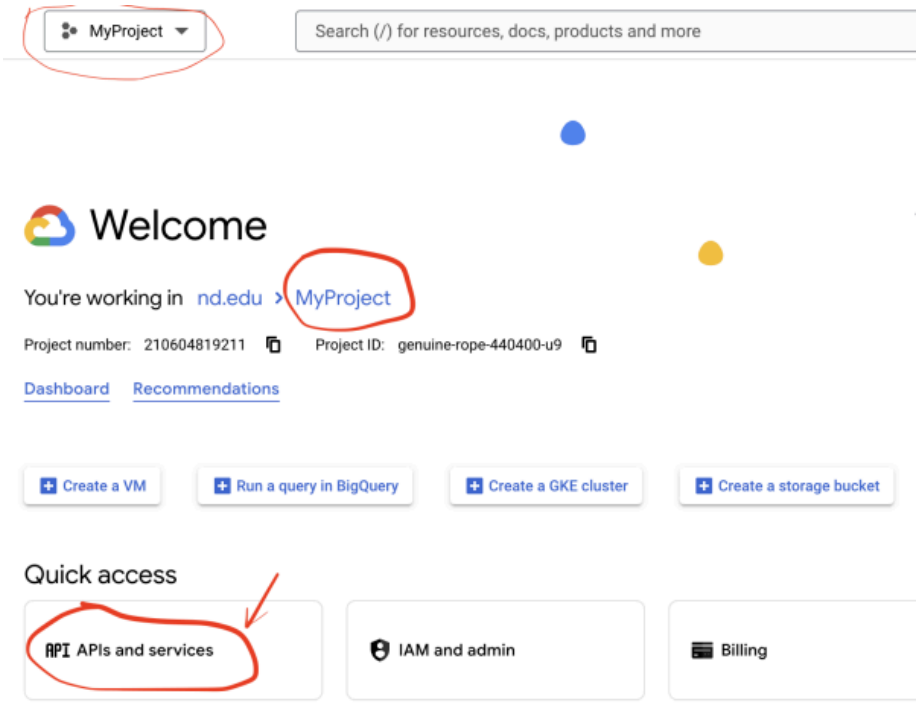
1. To start, to to Google Cloud console at https://console.cloud.google.com/ [https://console.cloud.google.com/]



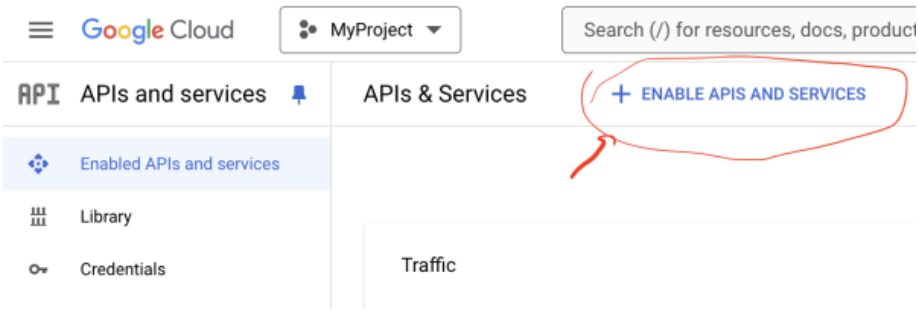
2. Click on nd.edu > first project or sth else there and in the popup window to create a new project.



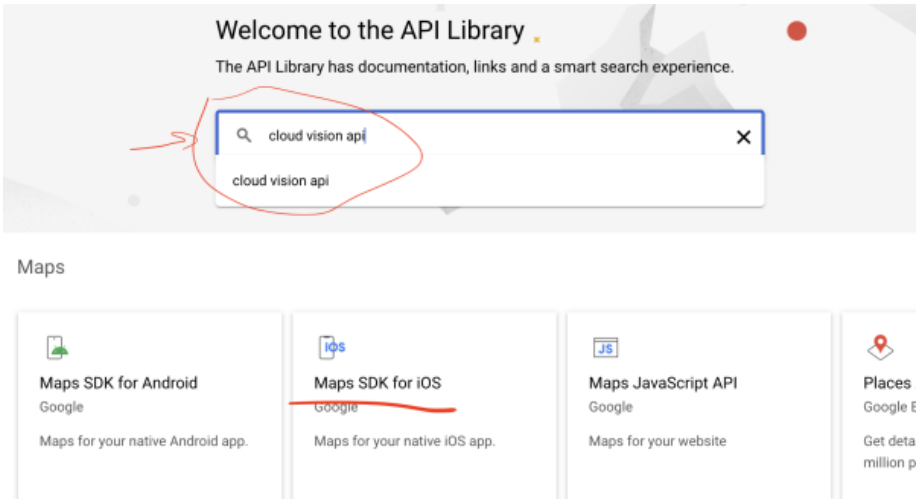
3. Select the newly created project and then click on "API and Services"

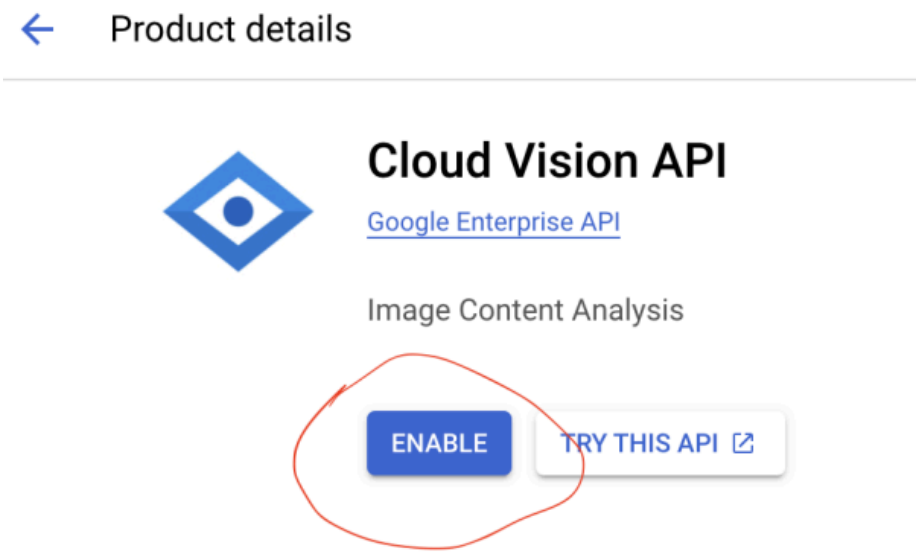


4. Then click on "+ENABLE APIS AND SERVICES"

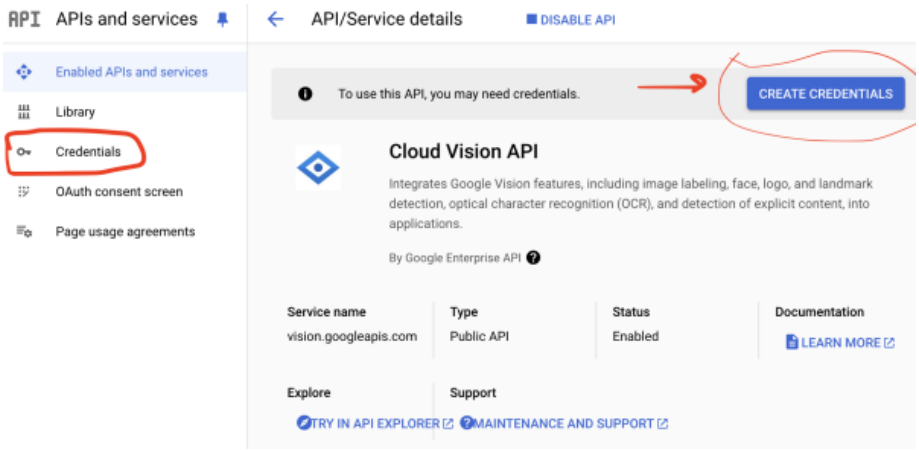


5. Select or search for "Cloud Vision API" and enable it.

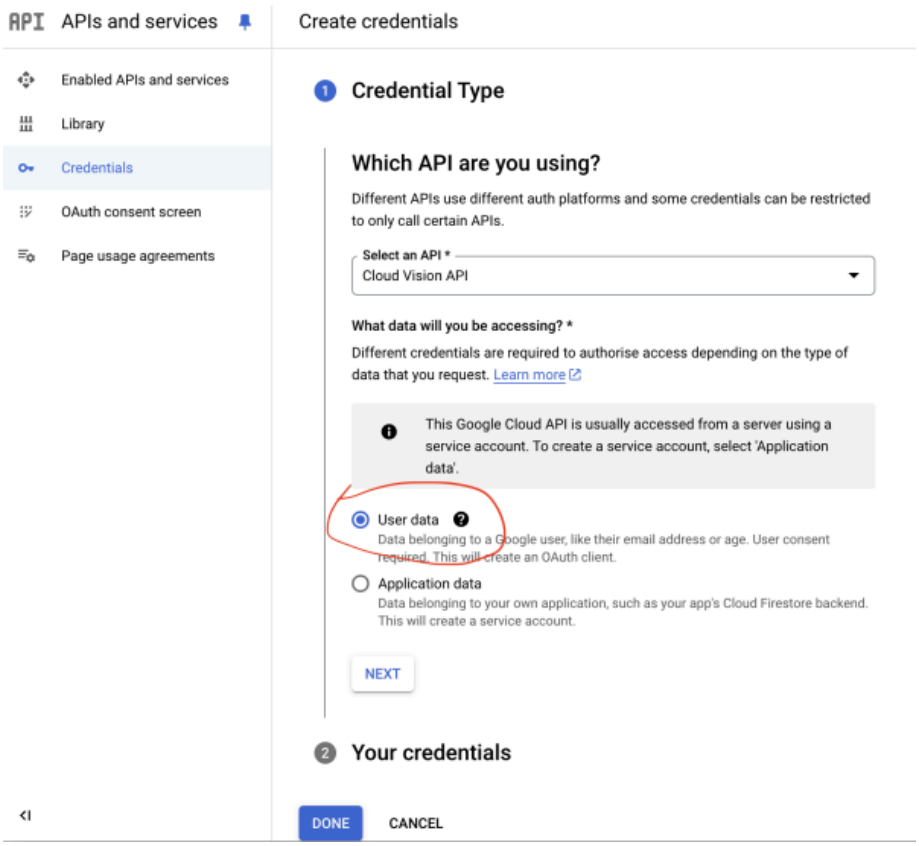


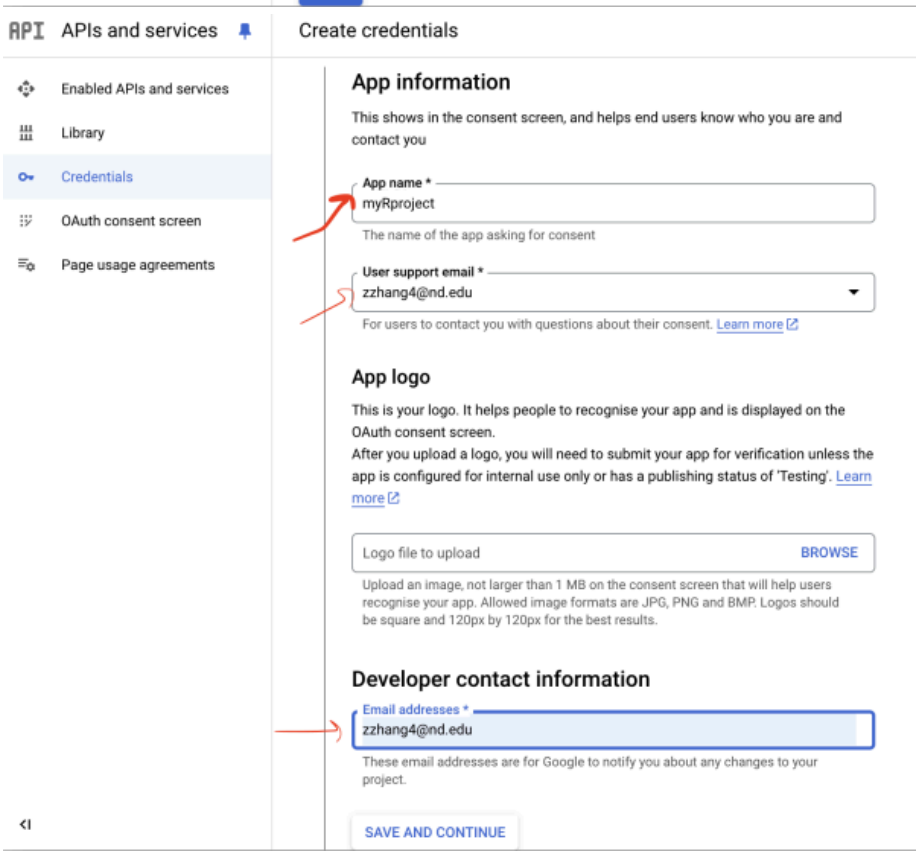


6. Click on “Create credentials”

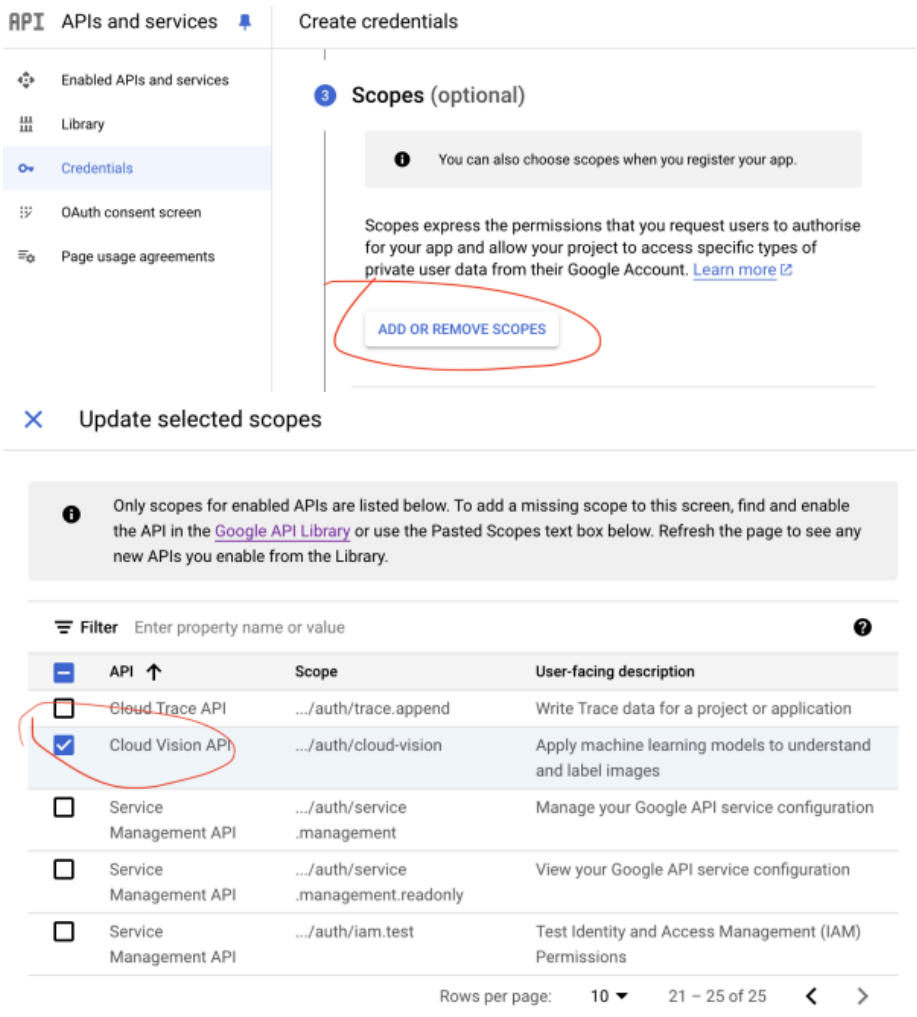


7. Now create the credentials following each step.

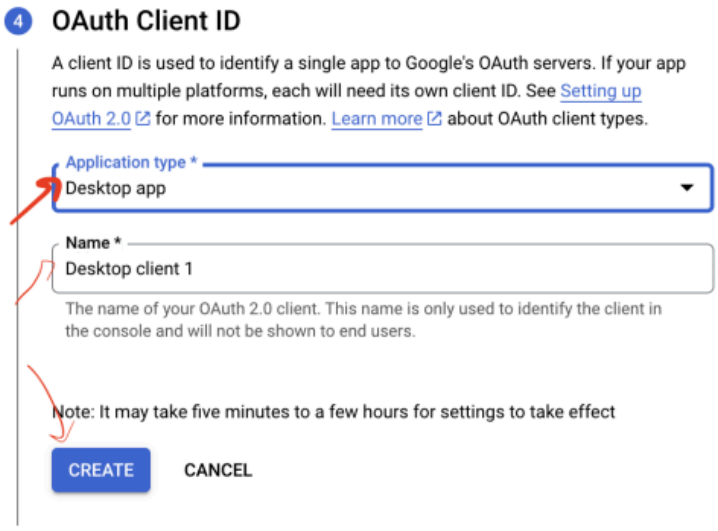




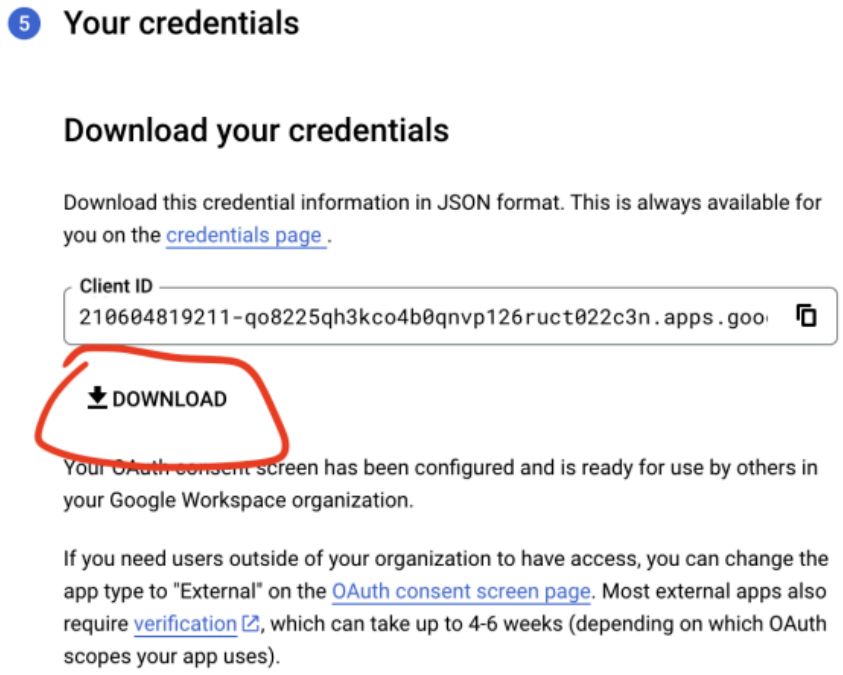
One can specify the scope of the APIs. Here we choose Cloud Vision.



Now create the client ID



After it, you can download the ID as a JSON file.



Click on "Done" to complete it.

Authenticate within R

We now use the R package googleAuthR to authenticate to Google.

1. Load the library (you may need to install it first using `install.packages('googleAuthR')` 2. Specify the scopes to use 3. Set the client ID using `gar_set_client`. `file.choose()` allows you to choose the JSON file you saved earlier. 4. Then for the use of the first time, use `gar_auth` to authenticate.

```
library(googleAuthR)

# specify the scopes - Google cloud and cloud vision for example.
scopes = c("https://www.googleapis.com/auth/cloud-vision",
           "https://www.googleapis.com/auth/cloud-platform")

# set the client
gar_set_client(file.choose(), scopes = scopes)

# authenticate and go through the OAuth2
gar_auth(email = "xxxx@nd.edu")
```

Use the Cloud Vision service

```
library(googleCloudVisionR)
API.call <- gcv_get_image_annotations(imagePaths = "calm1.png", feature="FACE_DETECTION")
API.call
```