

# Exercises using Random Forest



# What to do

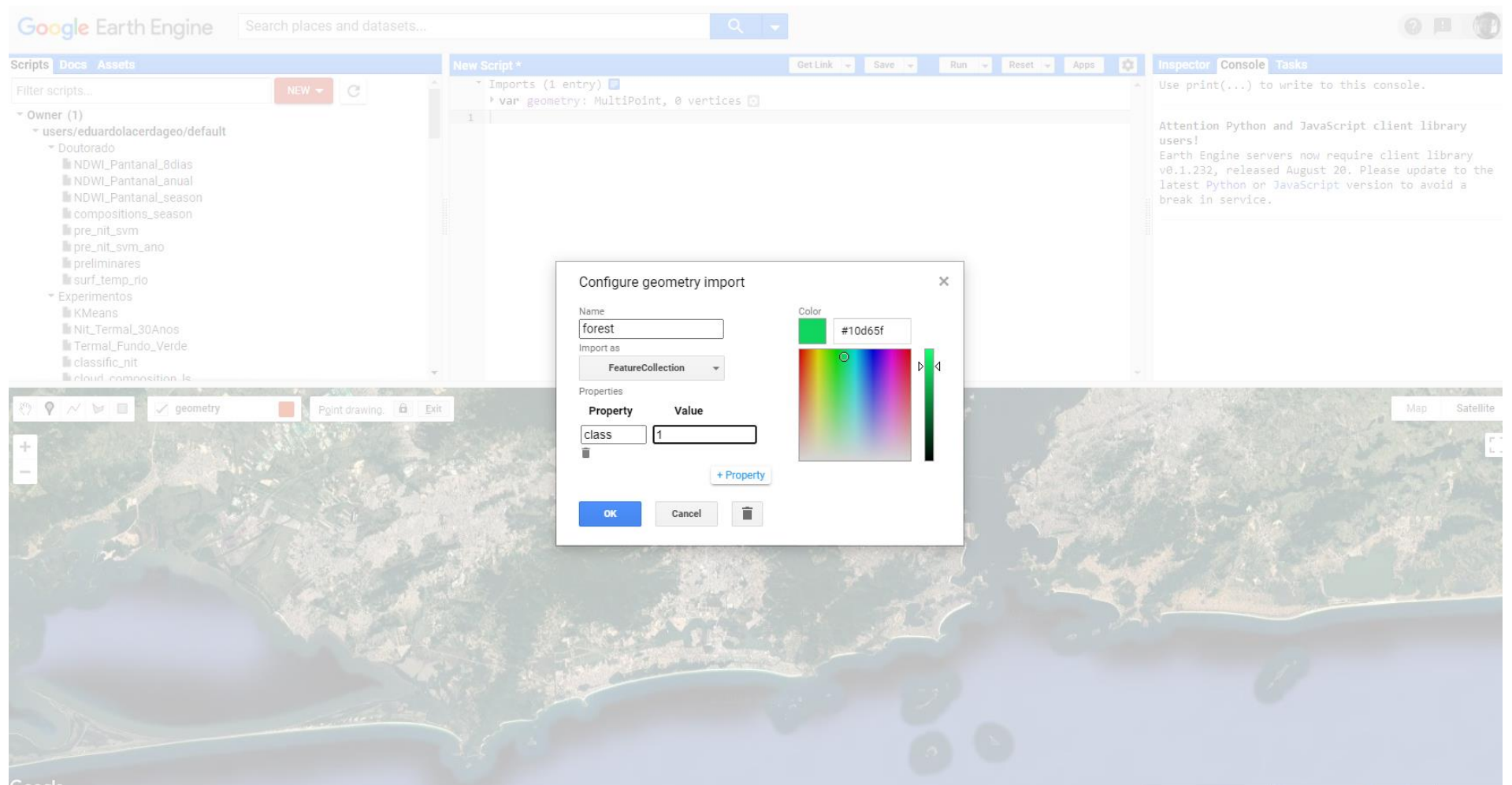
## Access your Google Earth Engine account

The screenshot displays the Google Earth Engine web interface. At the top, the 'Google Earth Engine' logo is on the left, and a search bar with the placeholder text 'Search places and datasets...' is in the center. To the right of the search bar are icons for help, notifications, and the user profile. Below the header, the interface is divided into three main sections. On the left is the 'Scripts' panel, which includes tabs for 'Scripts', 'Docs', and 'Assets'. Under the 'Scripts' tab, there is a 'Filter scripts...' input field, a 'NEW' button, and a refresh icon. A list of scripts is shown, organized by owner: 'Owner (1)' followed by 'users/eduardolacerdageo/default'. This folder contains two sub-folders: 'Doutorado' and 'Experimentos'. The 'Doutorado' folder lists several scripts: 'NDWI\_Pantanal\_8dias', 'NDWI\_Pantanal\_anual', 'NDWI\_Pantanal\_season', 'compositions\_season', 'pre\_nit\_svm', 'pre\_nit\_svm\_ano', 'preliminares', and 'surf\_temp\_rio'. The 'Experimentos' folder lists: 'KMeans', 'Nit\_Termal\_30Anos', 'Termal\_Fundo\_Verde', 'classific\_nit', and 'cloud\_composition\_Is'. The middle section is the 'New Script' editor, featuring a toolbar with 'Get Link', 'Save', 'Run', 'Reset', and 'Apps' buttons. The script editor itself shows a single line of code. On the right is the 'Inspector Console' panel, with tabs for 'Inspector', 'Console', and 'Tasks'. The 'Console' tab is active, displaying a message: 'Use print(...) to write to this console.' Below this, a warning message states: 'Attention Python and JavaScript client library users! Earth Engine servers now require client library v0.1.232, released August 20. Please update to the latest Python or JavaScript version to avoid a break in service.' The bottom section is a map of the United States, showing state boundaries and names. Major cities like San Francisco, Los Angeles, San Diego, Dallas, Houston, Chicago, New York, Philadelphia, and Toronto are marked. The map includes navigation controls on the left (compass, pan, zoom, and layers) and a 'Map'/'Satellite' toggle on the right. A scale bar at the bottom right indicates '500 km'.



# What to do

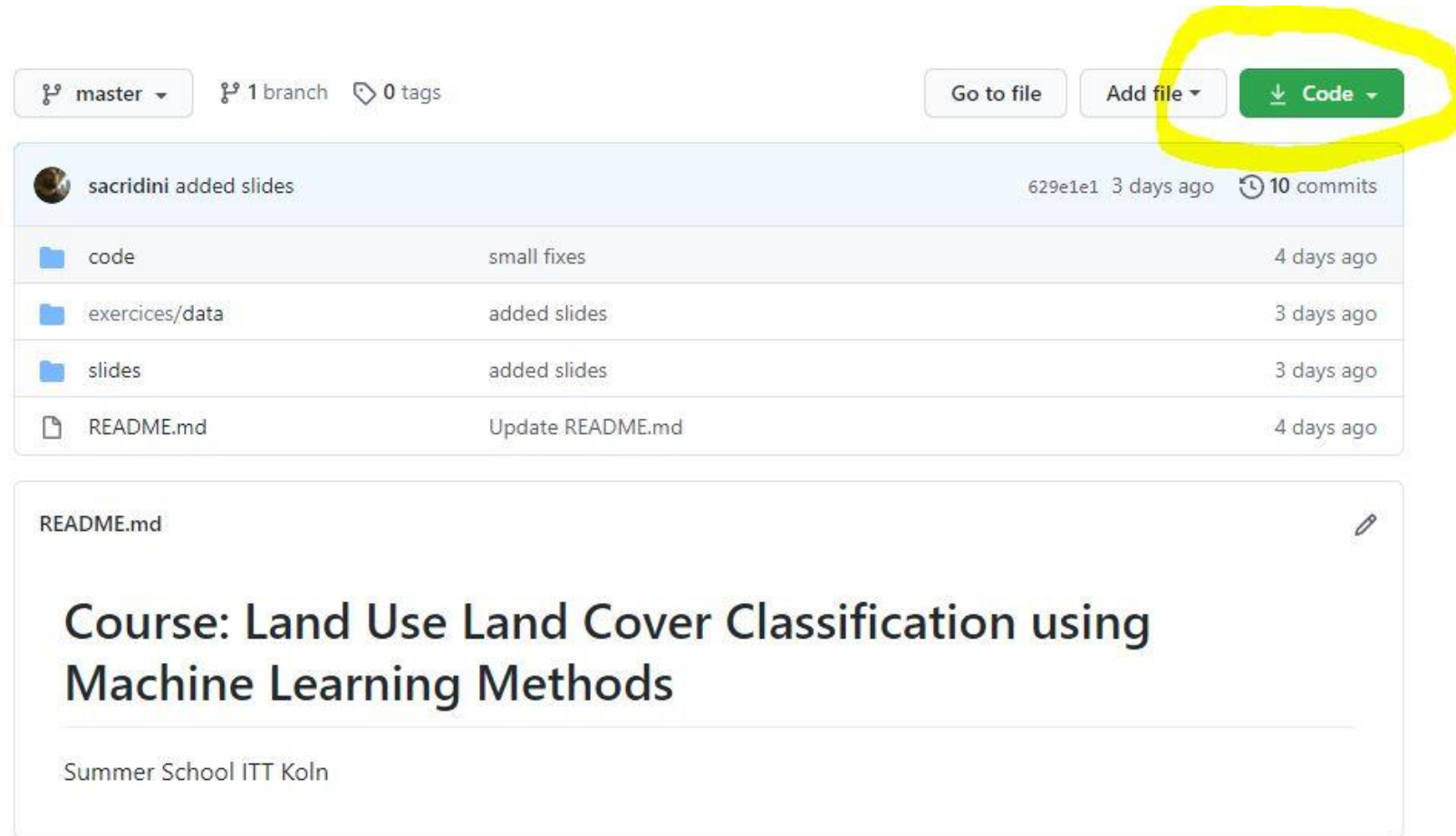
Collect some (point) samples from a region of your interest (roi). Change the “import as” field from Geometry to Feature Collection, add the property of your point data and name it too.



# What to do

Go to: [https://github.com/sacridini/lulc\\_ml\\_methods\\_course](https://github.com/sacridini/lulc_ml_methods_course)

Download the repository content



The screenshot shows the GitHub interface for the repository 'lulc\_ml\_methods\_course' by user 'sacridini'. At the top, there are buttons for 'Go to file', 'Add file', and 'Code'. The 'Code' button is highlighted with a yellow circle. Below these buttons, a commit history table is visible, showing the latest commit 'sacridini added slides' with a commit hash of '629e1e1' and a timestamp of '3 days ago'. The commit history table has the following structure:

Commit Hash	Commit Message	Time Ago
629e1e1	sacridini added slides	3 days ago
	code small fixes	4 days ago
	exercices/data added slides	3 days ago
	slides added slides	3 days ago
	README.md Update README.md	4 days ago

Below the commit history, the README.md file is displayed. The title of the README is 'Course: Land Use Land Cover Classification using Machine Learning Methods'. The subtitle is 'Summer School ITT Koln'.

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## What to do

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Copy the code from: [https://github.com/sacridini/lulc\\_ml\\_methods\\_course/blob/master/code/gee/lulc\\_gee.js](https://github.com/sacridini/lulc_ml_methods_course/blob/master/code/gee/lulc_gee.js)

Paste it in your Earth Engine project and change the script to work with your data



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## What to do

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Export the results and load in a GIS software of your preference



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## Exercise Number 2

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- Get the R scripts from the repository
- Get the raster file and the samples shapefile file from the repository
- Install the Raster, SF and MLR packages in your computer
- Run the “mlr\_class.R” script in your R setup

