Getting started

The document you are reading is not a static web page, but an interactive environment called a **Colab notebook** that lets you write and execute code.

For example, here is a code cell with a short Python script that computes a value, stores it in a variable, and prints the result:

```
P =float(input(" Load in kg: "))
p =float(input (" Tyre pressure kg/cm^2: "))
M = int(input ("Total Number of layers in a given Pavement : "))
pi = 3.14159
CBR = []
for i in range (1, M+1):
        print("California Bearing Ratio of Material in %")
        CBR_value = float (input())
        CBR.append(CBR_value)
        T = ((1.75*P)/(CBR_value)-(P/(p*pi)))**0.5
        print("Thickness Above this layer: ", T, "cm")
print("Given that bitumen layer of 4 cm")
    Load in kg: 4085
     Tyre pressure kg/cm^2: 7
     Total Number of layers in a given Pavement : 3
     California Bearing Ratio of Material in %
     Thickness Above this layer: 38.031276487723645 cm
     California Bearing Ratio of Material in %
     Thickness Above this layer: 31.712799015896838 cm
     California Bearing Ratio of Material in %
     Thickness Above this layer: 20.247776538573337 cm
     Given that bitumen layer of 4 cm
seconds in a day = 24 * 60 * 60
seconds_in_a_day
→ 86400
```

To execute the code in the above cell, select it with a click and then either press the play button to the left of the code, or use the keyboard shortcut "Command/Ctrl+Enter". To edit the code, just click the cell and start editing.

Variables that you define in one cell can later be used in other cells:

```
seconds_in_a_week = 7 * seconds_in_a_day
seconds_in_a_week
$\frac{1}{2}$ 604800
```

Colab notebooks allow you to combine **executable code** and **rich text** in a single document, along with **images**, **HTML**, **LaTeX** and more. When you create your own Colab notebooks, they are stored in your Google Drive account. You can easily share your Colab notebooks with co-workers or friends, allowing them to comment on your notebooks or even edit them. To learn more, see <u>Overview of Colab</u>. To create a new Colab notebook you can use the File menu above, or use the following link: <u>create a new Colab notebook</u>.

Colab notebooks are Jupyter notebooks that are hosted by Colab. To learn more about the Jupyter project, see jupyter.org.