

Google Colab

19CSE304

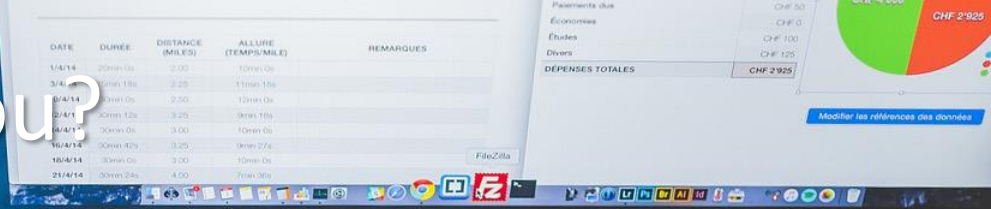
15CSE431 —

Dept. of CSE, Amrita Vishwa Vidyapeetham



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- Write and execute code in Python
- Document your code that supports mathematical equations
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- Import/Publish notebooks from GitHub
- Import external datasets e.g. from Kaggle
- Integrate PyTorch, TensorFlow, Keras, OpenCV
- Free Cloud service with free GPU



Your First Colab Notebook

- Type URL in your browser: <https://colab.research.google.com>



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import time
print(time.ctime())
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```
import time  
print(time.time())
```

Thu Jun 18 11:29:08 2020

Google Colab interface showing a notebook titled "First_Colab Notebook.ipynb". The interface includes a menu bar (File, Edit, View, Insert, Runtime, Tools, Help) and a toolbar with buttons for adding code cells (+ Code) and text cells (+ Text). The code cell contains the following Python code:

```
import time
print(time.ctime())
```

The output of the code cell is displayed as "Thu Jun 18 11:29:08 2020". The interface also shows a sidebar with a file explorer and a bottom toolbar with various icons. The URL in the address bar is colab.research.google.com/drive/1MOflvmksQBbLcN8iqKU-ifZCeIQIPz_#scrollTo=CjyNHZMeJ6v9.

Create new code cell

Windows taskbar showing the Start button, search bar (Type here to search), and several open applications including Google Chrome, File Explorer, Adobe Reader, and Microsoft Word. The system clock indicates 5:00 PM on 6/18/2020.

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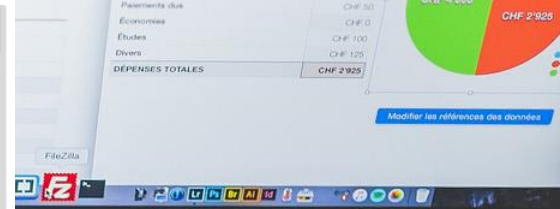
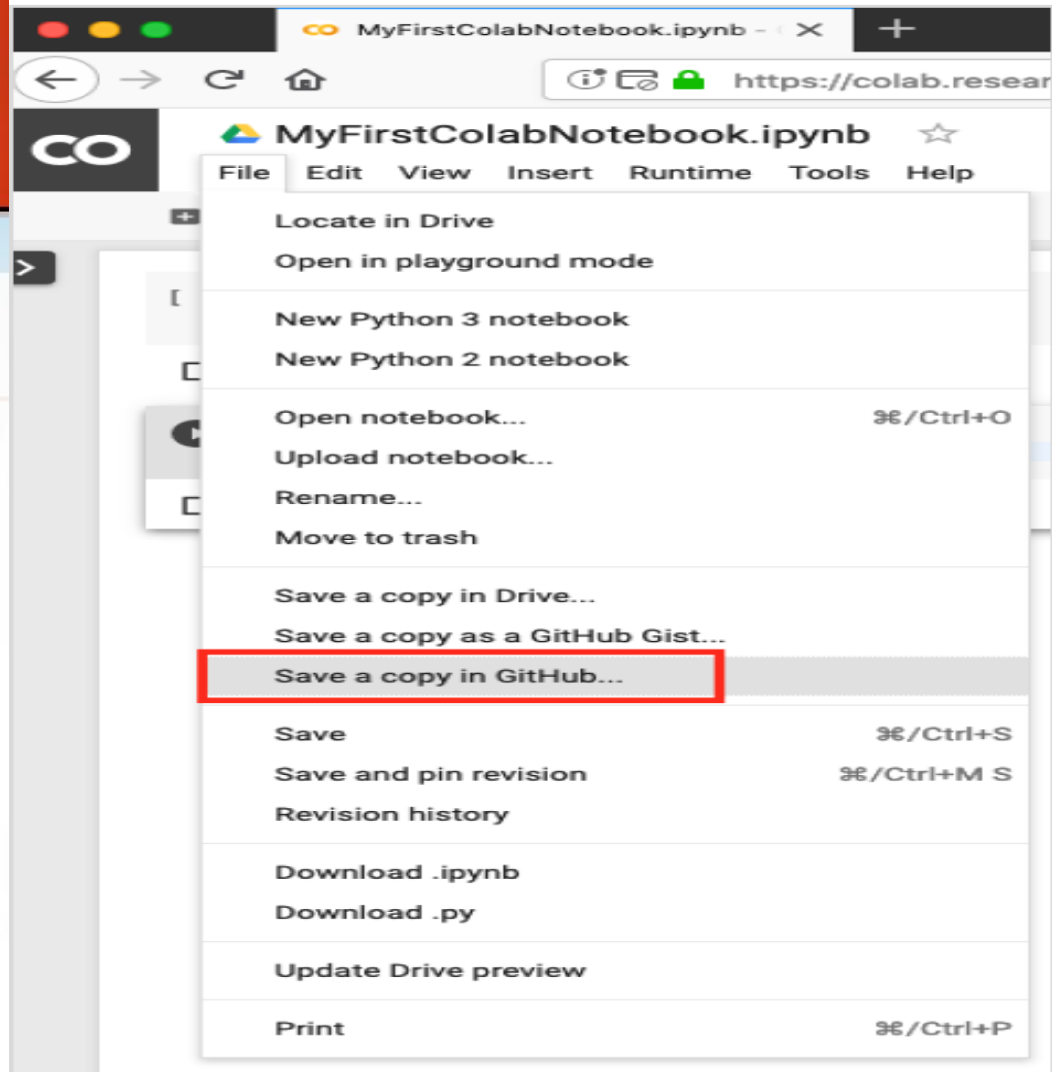
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print(time.ctime())

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print(time.ctime())

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[1] import time
print(time.ctime())

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from google.colab import drive
drive.mount('/content/drive')

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    print(time.ctime())
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from google.colab import drive  
drive.mount('/content/drive')
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drive.mount('/content/drive')

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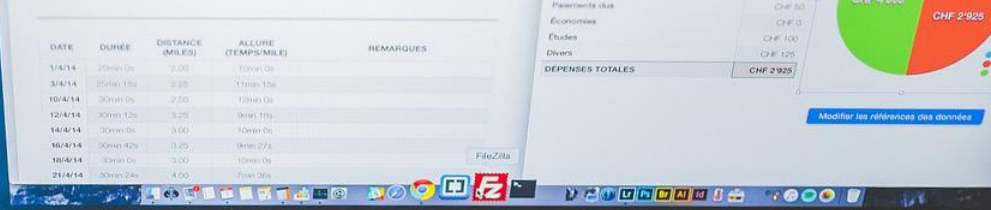
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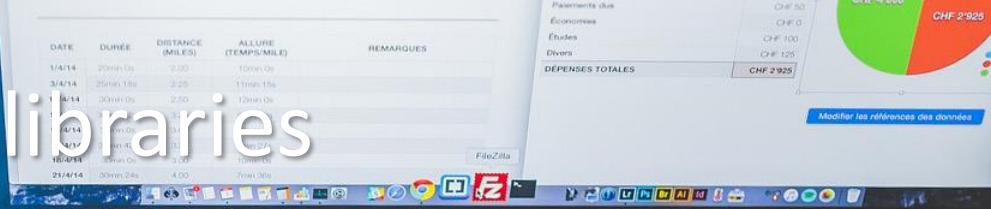
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Python Data Science libraries

- Data Mining.
 - 1. Scrapy
 - 2. BeautifulSoup
- Data Visualization
 - 1. Matplotlib
 - 2. Seaborn
 - 3. Bokeh
 - 4. Plotly
 - 5. pydot

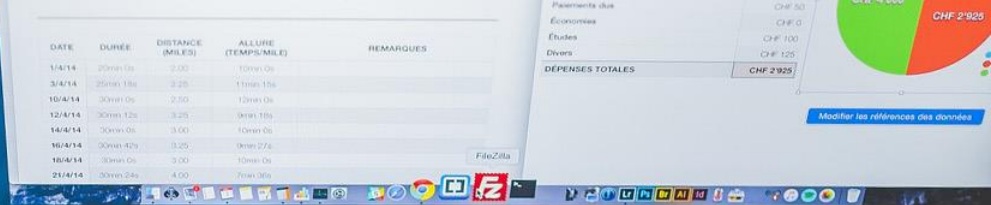
- Data Processing and Modeling
 - 1. NumPy
 - 2. scipy
 - 3. pandas
 - 4. Keras
 - 5. SciKit-Learn
 - 6. Pytorch
 - 7. TensorFlow
 - 8. XGBoost





TRY OUT THESE EXERCISES

1. The simple Interest is ???

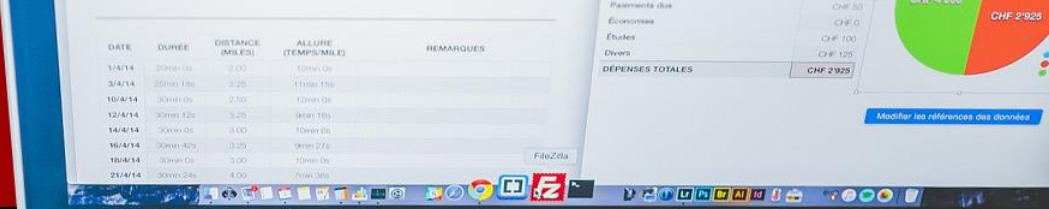


```
[ ] def simple_interest(p,t,r):  
    print('The principal is', p)  
    print('The time period is', t)  
    print('The rate of interest is',r)  
  
    si = (p * t * r)/100  
  
    print('The Simple Interest is', si)  
    return si
```



```
simple_interest(8, 6, 8)
```

2. Predict the output



```
start = 11  
end = 25
```

```
for val in range(start, end + 1):  
    if val > 1:  
        for n in range(2, val//2 + 2):  
            if (val % n) == 0:  
                break  
        else:  
            if n == val//2 + 1:  
                print(val)
```

3. Predict the output if input is 11

```
def fun1(num):  
  
    if num > 1:  
        fun1(num // 2)  
    print(num % 2, end='')  
  
|  
number = int(input("Enter any number: "))  
  
fun1(number)
```

4. Predict the output if the first number=4 and second number=10

```
def fun2(x, y):  
    if x > y:  
        greater = x  
    else:  
        greater = y  
    while(True):  
        if((greater % x == 0) and (greater % y == 0)):  
            val = greater  
            break  
        greater += 1  
    return val
```

```
num1 = int(input("Enter first number: "))  
num2 = int(input("Enter second number: "))  
print(fun2(num1, num2))
```

5. Predict the output if the input given is helloo.....How r u????



```
▶ punctuation = '!'()-[]{};:'"\.,<>./?@#$$%^&*~_'''\n'
my_str = input("Enter a string: ")
str1 = ""
for char in my_str:
    if char not in punctuation:
        str1 = str1 + char

print(str1)
```

Quiz Link

https://forms.office.com/Pages/ResponsePage.aspx?id=o835AF4H5USqC6ujrdZTn63NXi4eP7xHpYuejR_M4qdURFhMWE9JTDhHTkc5OEIUSDRWOVMYUTNPQy4u

