Python Basics

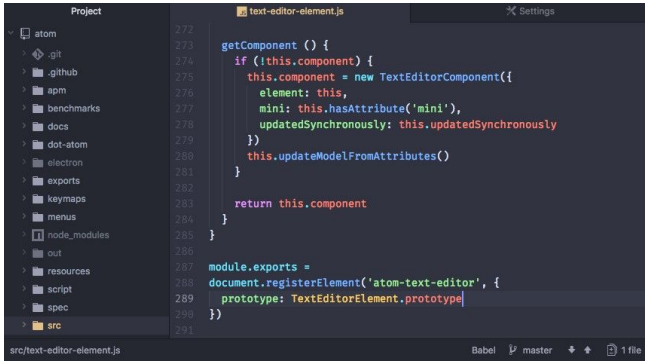
for Data Analytics and Visualization

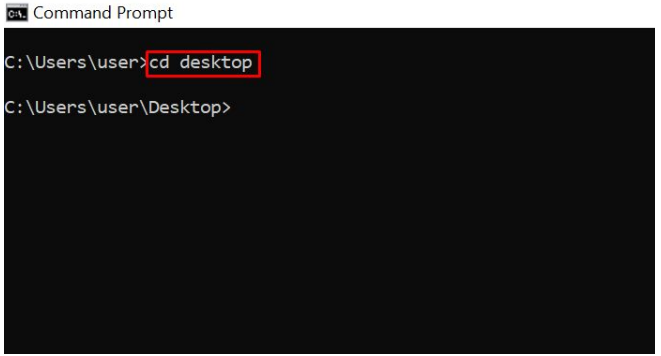
Haris Gulzar
AI Researcher

Lecture 1

- Environment Set up
- Python Basics
  - Data Types
  - Logics
  - Functions

1. The Environment





Editor Window

- VS Code
- Text editor in PC

Command Window

- In every PC

Notebook

Combination of both

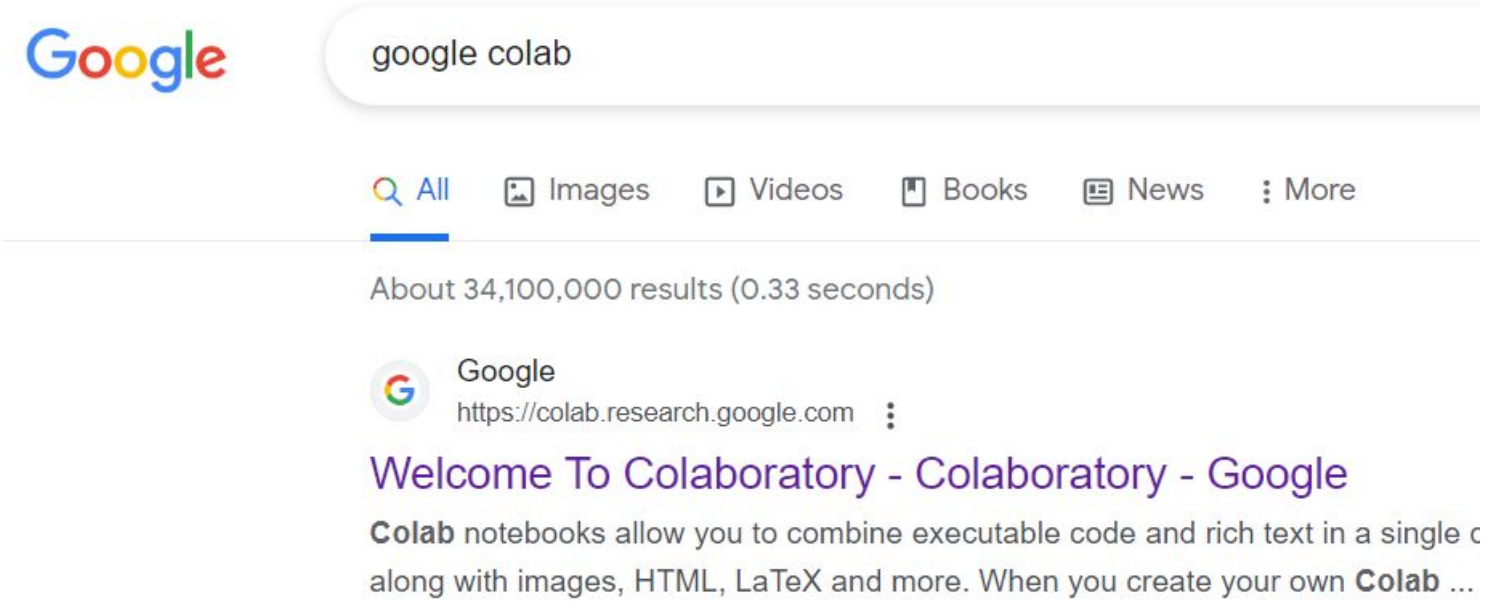
1. The Environment

On Your PC

Same thing on the
Google Server

colab

1. The Environment

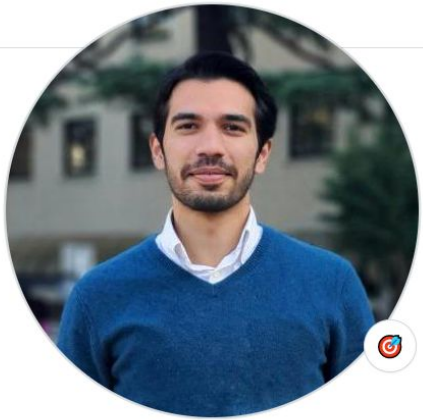


1. The Environment

Facebook for Programmers

github.com

github.com/harisgulzar1



Haris Gulzar

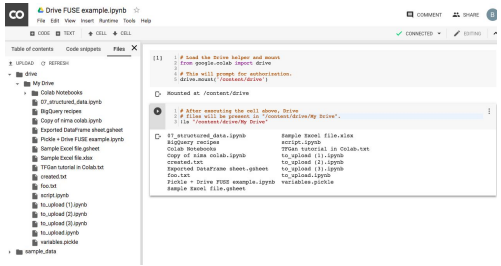
harisgulzar1

Machine Learning and Edge Computing
Researcher at Tokyo Tech

1. Recap of Lecture 1

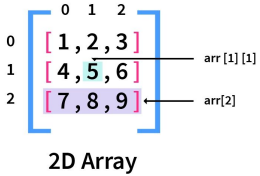
Initial Set-Up

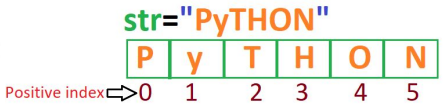
We will use Google Colab for this course

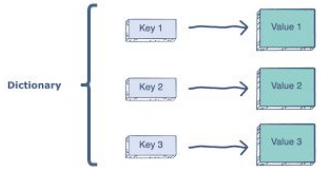


Python Data Formats

Arrays, Strings, Dictionary etc.

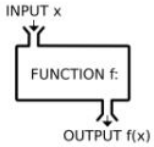






Functions

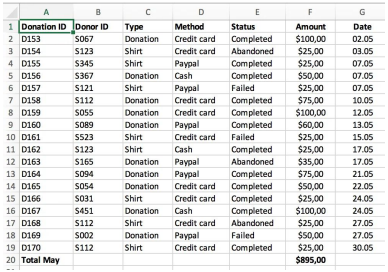
To handle large codes, we can wrap part of the in functions.



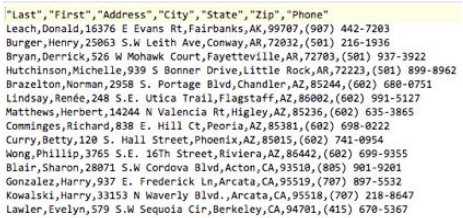
Lecture 2. Data Reading in Python

From Excel spreadsheets and text files

I will introduce libraries to load data from different sources like excel and text files.



	A	B	C	D	E	F	G
1	Donation ID	Donor ID	Type	Method	Status	Amount	Date
2	D153	S067	Donation	Credit card	Completed	$100,00	02.05
3	D154	S123	Shirt	Credit card	Abandoned	$25,00	03.05
4	D155	S345	Shirt	Paypal	Completed	$25,00	07.05
5	D156	S367	Donation	Cash	Completed	$50,00	07.05
6	D157	S121	Shirt	Paypal	Failed	$25,00	07.05
7	D158	S112	Donation	Credit card	Completed	$75,00	10.05
8	D159	S055	Donation	Credit card	Completed	$100,00	12.05
9	D160	S089	Donation	Paypal	Completed	$60,00	13.05
10	D161	S523	Shirt	Credit card	Failed	$25,00	15.05
11	D162	S123	Shirt	Cash	Completed	$25,00	17.05
12	D163	S165	Donation	Paypal	Abandoned	$35,00	17.05
13	D164	S094	Donation	Paypal	Completed	$75,00	21.05
14	D165	S054	Donation	Credit card	Completed	$50,00	22.05
15	D166	S031	Shirt	Credit card	Completed	$25,00	24.05
16	D167	S451	Donation	Cash	Completed	$100,00	24.05
17	D168	S112	Shirt	Credit card	Abandoned	$25,00	27.05
18	D169	S002	Donation	Paypal	Failed	$50,00	27.05
19	D170	S112	Shirt	Credit card	Completed	$25,00	30.05
20	Total May					$895,00	



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"Last","First","Address","City","State","Zip","Phone"
Leach,Donald,16376 E Evans Rt,Fairbanks,AK,99707,(907) 442-7203
Burger,Henry,25063 S.W Leith Ave,Conway,AR,72032,(501) 216-1936
Bryan,Derrick,526 W Mohawk Court,Fayetteville,AR,72703,(501) 937-3922
Hutchinson,Michelle,939 S Bonner Drive,Little Rock,AR,72223,(501) 899-8962
Brazelton,Norman,2958 S. Portage Blvd,Chandler,AZ,85244,(602) 680-0751
Lindsay,Renée,248 S.E. Utica Trail,Flagstaff,AZ,86002,(602) 991-5127
Matthews,Herbert,14244 N Valencia Rt,Higley,AZ,85236,(602) 635-3865
Comminges,Richard,838 E. Hill Ct,Peoria,AZ,85381,(602) 698-0222
Curry,Betty,120 S. Hall Street,Phoenix,AZ,85015,(602) 741-0954
Wong,Phillip,3765 S.E. 16Th Street,Riviera,AZ,86442,(602) 699-9355
Blair,Sharon,28071 S.W Cordova Blvd,Acton,CA,93510,(805) 901-9201
Gonzalez,Harry,937 E. Frederick Ln,Arcata,CA,95519,(707) 897-5532
Kowalski,Harry,33153 N Waverly Blvd.,Arcata,CA,95518,(707) 218-8647
Lawler,Evelyn,579 S.W Sequoia Cir,Berkeley,CA,94701,(415) 670-5367
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We will also study:

- How can we restructure this data
- Perform numerical operations on the data.
- Examples on how we can program our own functions to process this data.