

## **Software Engineering Tools Lab**

**PRN : 2020BTECS00205**

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### **Assignment No-2**

**(Module 2- Software Development Frameworks)**

## **List of Frameworks/IDEs/Softwares Google colab**

### **1. Original author**

Google developed AI framework called TensorFlow and a development tool called Colaboratory.

### **2. Developers**

Colaboratory, or Colab for short, is a Google Research product, which allows developers to write and execute Python code through their browser.

### **3. Initial release**

2017

### **4. Stable release**

Python 3.6.9 as of 2021

### **5. Preview release**

Python 2.7

### **6. Repository (with cloud support )**

<http://colab.research.google.com/github>

<http://colab.research.google.com/github/googlecolab/>

### **7. Written in (Languages)**

40 programming languages including Python, R, Julia, Scala, and even more

**8. Operating System support**

Linux

**9. Platform ,portability**

Platform :Online browser-based platform that allows us to train our models on machines

Portablity:It is portable

**10. Available in (Total languages)**

40 programming languages

**11. List of languages supported**

40 programming languages including Python, R, Julia, Scala, and even more

**12. Type (Programming tool, integrated development environment etc.)**

write and execute arbitrary python code through the browser Jupyter Notebook

**13. Website**

<https://colab.research.google.com/>

**14. Features**

- Write and execute code in Python.
- Document the code which supports the mathematical equations.
- Create new notebooks.
- Upload the existing notebooks.

- Share the notebooks with the google link.
- Import data from Google Drive.
- Save notebooks from/to Google Drive.

**15. Size (in MB, GB etc.)**

12 GB of RAM (actually 12.7 GB, but 0.8 GB are already taken).

**16. Privacy and Security**

It's safe, at least as safe as your private Google Doc is. No one can access your own private Colab notebooks. And Google has the incentive to make it as safe as possible for their reputation.

**17. Type of software (Open source/License)**

Google Colaboratory or Google Colab is a free Jupyter Notebook environment. It is a free cloud-based service by Google.

**18. If License- Provide details.**

**19. Latest version**

Google Colab uses Python 3.6. 9 as of 2021

**20. Cloud support (Yes/No)**

Yes

**21. Applicability**

applicable Paid Services.

**22. Drawbacks (if any)**

**Closed-Environment:** Anyone can use Google Colab to write and run arbitrary Python code in the browser. However, it is still a relatively closed environment, as machine learning

practitioners can only run the python package already pre-added on the Colab.

**Repetitive Tasks:** Imagine one has to repeat the same set of actions repeatedly to execute a task — not only will it be exhausting, but it will also consume a lot of time.

**No Live-Editing:** Writing a code and sharing the same with your partner or a team allows you to collaborate. However, the option for live editing is completely missing in Google Colab, which restricts two people to write, or edit codes at the same time.

2. Implement linear regression problem using Google colab (Perform preprocessing, training and testing)

Dataset 6-

<https://archive.ics.uci.edu/ml/datasets/Hungarian+Chicken+Cases>





