**Software Engineering Tools Lab**

**Assignment No-2**

(Module 2- Software Development Frameworks)

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**PRN:** 2019BTECS00045 **PRN:** 2019BTECS00044

**Batch:** T6 **Batch:** T6

* ***Anaconda***

1. Original author

* Peter Wang and Travis Oliphant

1. Developers

* Anaconda, Inc.(previously Continuum Analytics)

1. Initial release

* 0.8.0/17 July 2012

1. Stable release

* 2021.11/17 November 2021

1. Preview release

* JupyterLab alpha preview 0.27.0 is included

1. Repository (with cloud support )

* A cloud package repository hosting service at [https://www.anaconda.org](https://www.anaconda.org/). With a free account, you can publish packages you create to be used publicly.Open source repository of hundreds of popular data science packages, along with the conda package and virtual environment manage

1. Written in (Languages)

* Anaconda is a distribution of **the Python and R programming languages** for scientific computing (data science, machine learning applications, large-scale data processing, predictive analytics, etc.), that aims to simplify package management and deployment.

1. Operating System support

* Windows 8 or newer, 64-bit macOS 10.13+, or Linux, including Ubuntu, RedHat, CentOS 7+ etc.

1. Platform ,portability

* A software platform for developing, governing, and automating data science and AI pipelines from laptop to production.Packages can be encapsulated into Anaconda projects for easy portability.

1. Available in (Total languages)

* Total 2 languages that is python and R programming language.

1. List of languages supported

* It also supports other programming languages like C, C++, FORTRAN, Java, Scala, Ruby, and Lua.

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

* We can use the following IDEs with Anaconda:
* [Eclipse and PyDev](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/eclipse-pydev/)
* [IDLE](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/idle/)
* [IntelliJ](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/intellij/)
* [Ninja IDE](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/ninja/)
* [Python Tools for Visual Studio (PTVS)](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/python-ptvs/)
* [Python for Visual Studio Code](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/python-vsc/)
* [Spyder](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/spyder/)
* [Sublime Text](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/sublime/)
* [Microsoft Visual Studio Code (VS Code)](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/vscode/)
* [Wing IDE](https://docs.anaconda.com/anaconda/user-guide/tasks/integration/wing/)

13. Website

* <https://www.anaconda.com/products/individual>

14. Features

* **Better Reliability:** The reliability of Anaconda has been improved in the latest release by capturing and storing the package metadata for installed packages.

• **Enhanced CPU Peformance:**The Intel Math Kernel Library 2019 for Deep Neural Networks(MKL 2019) has been introduced in Anaconda 5.3 distribution. Users deploying Tensorflow can make use of MKL 2019 for Deep Neural Networks. These Python binary packages are provided to achieve high CPU performance.

• **New packages are added:**There are over 230 packages which has been updated and added in the new release.

• **Work in Progress:**There is a casting bug in Numpy with Python 3.7 but the team is currently working on patching it until Numpy is updated.

15. Size (in MB, GB etc.)

* Minimum 5 GB disk space to download and install.

16. Privacy and Security

* Security Risk :- Due to the sheer number of Python and R packages and their dependencies, packages are still not free of security vulnerabilities and exposures.
* Privacy :-Under the Privacy Shield, Anaconda is responsible for the processing for personal data we receive and subsequently transfer to a third party service provider acting for or on our behalf.

17.Type of software (Open source/License)

18.If License- Provide details

* Terms of Service require commercial users to purchase a license, so that we may continue to support innovation in open-source data science, maintaining and improving Anaconda Individual Edition, Conda packages, and our repositories.

19.Latest version

* Anaconda Individual Edition 2021.11 includes a new release of Anaconda Navigator - version 2.1. 1.

20.Cloud support (Yes/No)

* Yes

21.Applicability

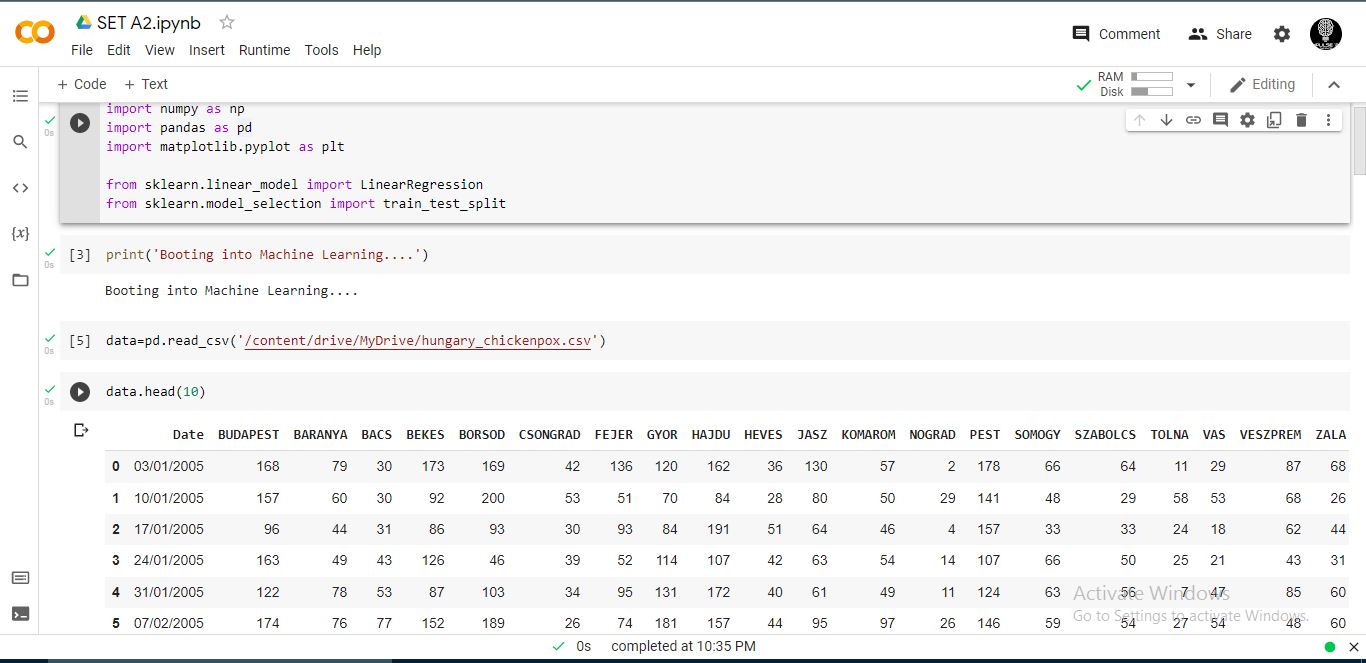
* Anaconda Individual Edition is the world’s most popular Python distribution platform with over 25 million users worldwide. You can trust in our long-term commitment to supporting the Anaconda open-source ecosystem, the platform of choice for Python data science.

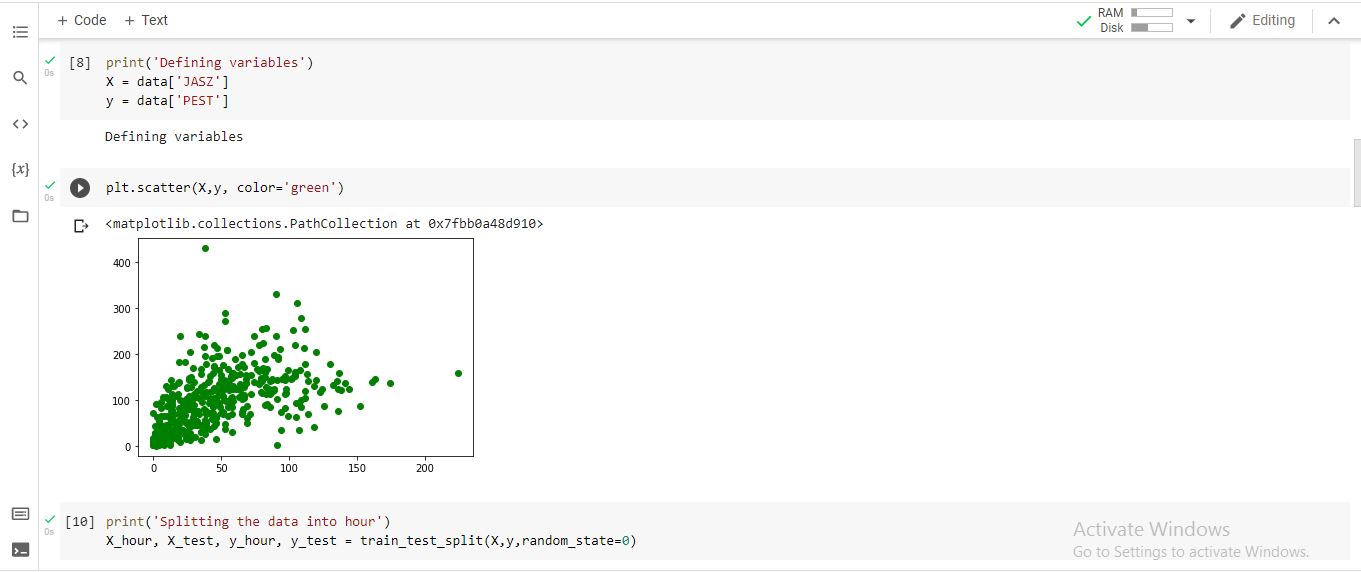
22.Drawbacks (if any)

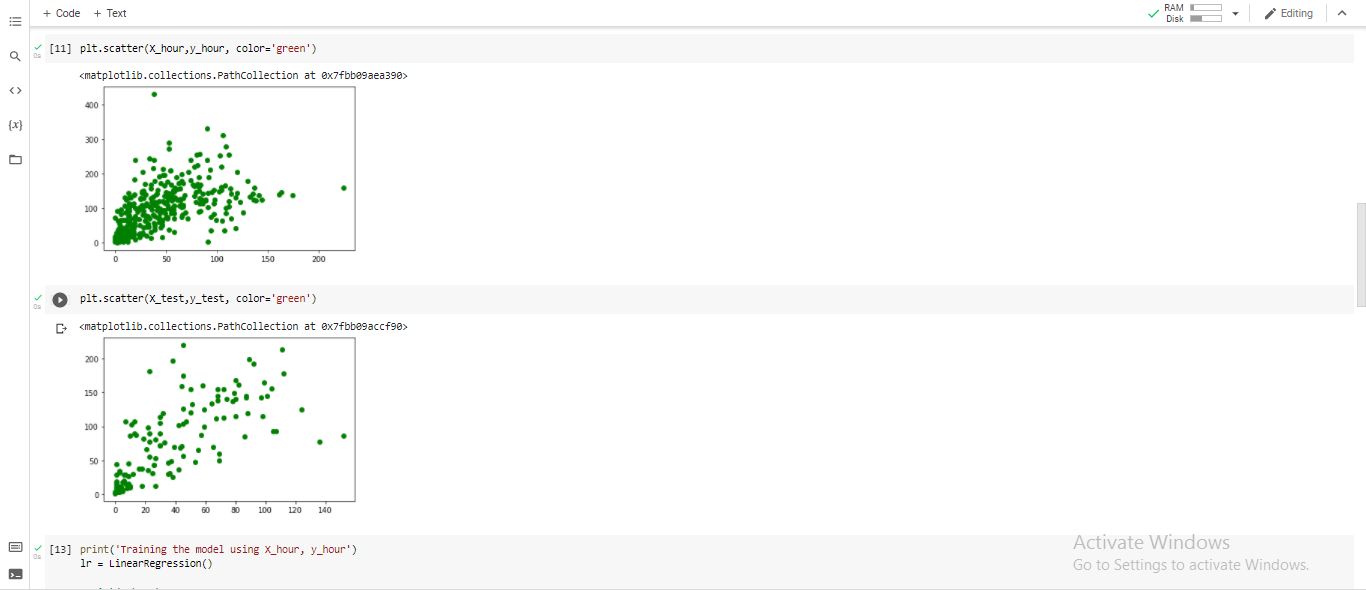
* The application takes a lot of time to load the first time.
* Sometimes, it stops working because it consumes more ram.

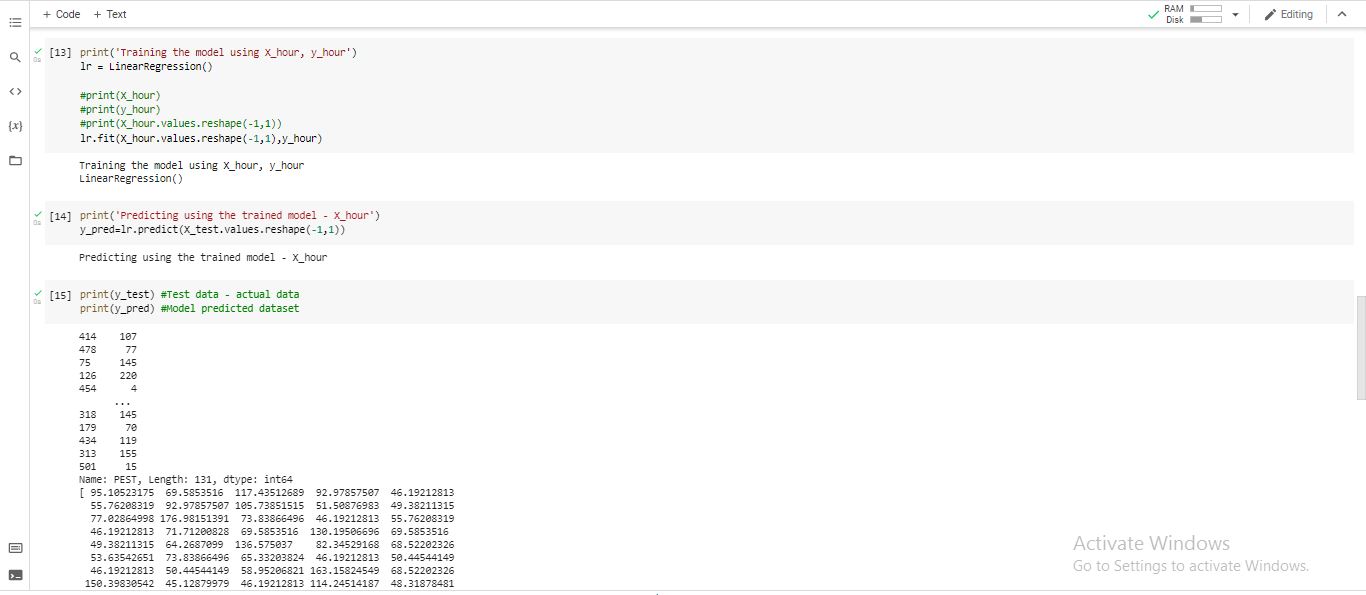
**2 . Implement linear regression problem using Google colab (Perform preprocessing, training and testing)**

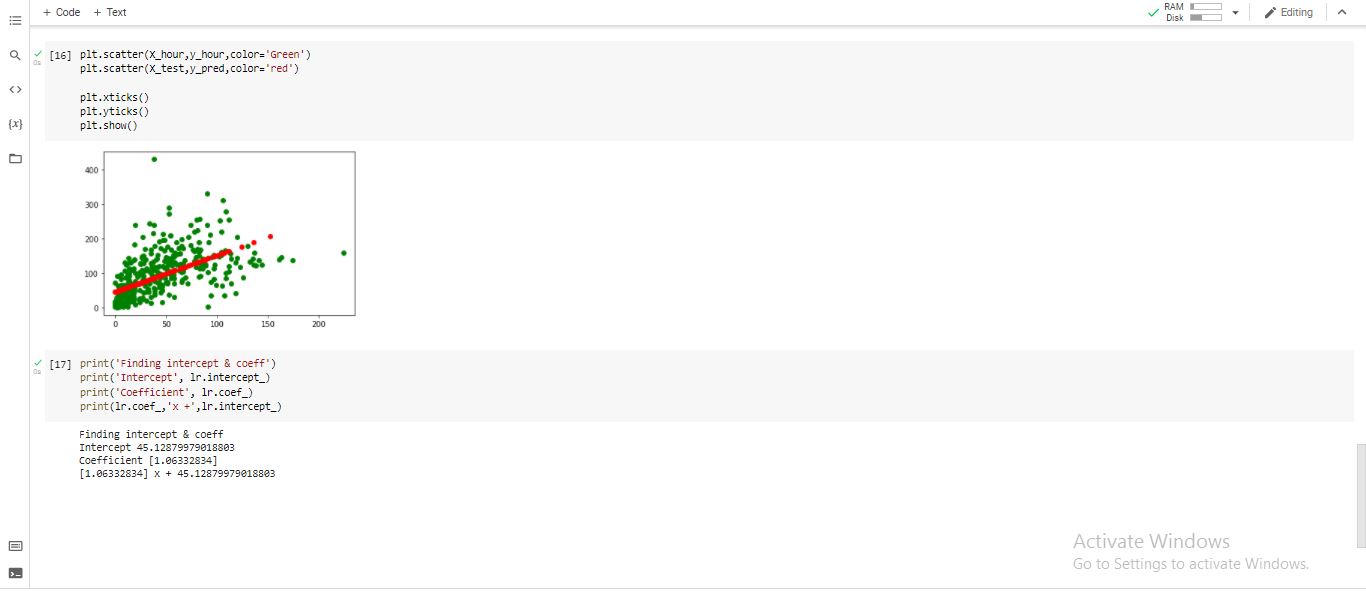
**Used Dataset no. 6 i.e.**<https://archive.ics.uci.edu/ml/datasets/Hungarian+Chickenpox+Cases> **for implementation of linear regression problem using Google colab.**

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