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Git and Github both are different. We use Git and different platforms but one of them is GitHub. In Git we give input command after the $ sign and then output is generated according to input, outputdoesn't have $ sign before it.

Git is an open source and freely available on the internet. We use Git to modify changes in our code. And this modification is done by any person once we upload the project on GitHub. Git track the every minute modification in the project. We can access the project code anywhere in the world through computer and internet connection so that's why it is called Freely available.

GitHub is a hub where Git users build the software codes together. GitHub is a hosting and version control platform where we use open source projects and share files with each other.

Nowadays millions of people use Git and Github for software development.

Git track our code changes and Github is use to share, host, and manage code.

GitHub is a platform that uses Git repositories or folders to manage it.

Commit:

Git commit is lightweight. Git commit is used for to track the changes and it records all the modification. Git maintain that which commit is done at which time and records it. Commit is also called snapshot of the projects. Commit is a change in the repository.

Git Branches:

Git braches are light weighted. Git Branches pointed towards the commit. Git branches doesn’t require any storage or memory. branch essentially says "I want to include the work of this commit and all parent commits."

Artificial Intelligence & Machine Learning:

AI is enables the machine to understand the data, learn the data, enable the machines to make decisions according to the desired input.

AI is enables the machine to think. ML is subpart of the AI. ML is a statistical tools to explore and analyze the data. We have 3 sub-types of ML is Supervised ML, Unsupervised ML, and reinforcement or semi supervised ML.

1. **Supervised ML:** having some labeled data, prediction of the future. Create a model trained the model through label data. We know what will be the output of the data.
2. **Unsupervised Data:** not having the labeled data we don't know the output of the data. Solve the clustering Technique (based on the similarity of the data).
3. **Reinforcement ML:** Some part of data is labeled and some part of the data is not labeled.

Deep Learning: is a part of Machine Learning. We are using Multi Neural Network Architecture. The main idea behind that is to mimic the human brain. Models are learning new things in this. In this we have different techniques

- Artificial Neural Network (ANN): The data in the form of Numbers are handled by ANN.
- Convolution Neural Network (CNN): Input is in the form of images, videos are handled by CNN.
- Reconnect Neural Network (RNN): Input is in the form of tiny series of data are handled by RNN.

Data Science: is a technique which is applied on the ML, DL, and AI. Data Science use different techniques such as Statistical, Linear Algebra, and Probability. Data Science is about data and we use it for making business decisions. Data Science is used to build engines, predicting user behaviors, and many more. We use different algorithms for the accurate results of the data.