In 2014 the Engineers ate the Airbnb are working on the project called as AIRFLOW.used to manage the companies complex workflows.

In 2015 the project fiiest committed to the github in 2015.

In march 2016 this project comes under the Apache Software Foundation Incubation Program.

It is easy to write the pipeline in python but it is diggicult to manage.

Weing the enterprise tooles like informatica,Alteryx but they are very expensive and we cannot be able to customize according to your usecase.

Reason behind Apache Airflow getting popular is **PIPELINE AS A CODE**

AirFlow is the opensource Tool: used to build , run and manage and schefule and acale using the apache airflow.

Apache airflow is the workflow(a series of tasks that need to be executed in specific order) management Tool.

This work flow in the apache airflow is called as DAGS

A screenshot of a computer

Description automatically generated

Here we see the individual box is called as the tasks .

Heart of the airflow is DAGS . DAGS is the collection of tasks and its dependencies

D:Directed 🡪 tasks moves in one direction

A:Acyclic 🡪 there are no loops or tasks cannot move in circles

G:Graph 🡪 visual representation of the different tasks.

DAGS 🡪 define the blueprint

Tasks 🡪 defines the logic that need to be executed .

To create a task in the apache airrflo something called as the operator.Operator is the function provided by the airflow .

There are different types of operators available in the airflow:

BashOperator 🡪 to execute the batch commands

PythonOperator 🡪 to call a Arbitary function in python.

EmailOperator 🡪 send an Email

Operator 🡪 are functions that are used to create Tasks

The colletion of the tasks with directions 🡪 DAGS

To run the entire DAG we need executor

Executor will determine how your task will run.

Types of executors :

Sequential Executor 🡪 used to run your task sequentualy

Local Executor 🡪 used to run the task parallel in the local machine

Celery Executor 🡪 used to distribute the task across multiple machines.