Installing Apache Airflow on Mac (Local/Standalone)

# Pre-requisites:

- macOS (Ventura or later recommended)  
- Python 3.8 or 3.9  
- pip, virtualenv

# Step-by-Step Installation

## Step 1: Create Python Virtual Environment

python3 -m venv airflow\_venv  
source airflow\_venv/bin/activate

## Step 2: Upgrade pip & setuptools

pip install --upgrade pip setuptools wheel

## Step 3: Set Airflow Environment Variables

export AIRFLOW\_HOME=~/airflow

## Step 4: Install Airflow with Constraints

AIRFLOW\_VERSION=2.8.1  
PYTHON\_VERSION="$(python --version | cut -d " " -f 2 | cut -d "." -f 1-2)"  
CONSTRAINT\_URL="https://raw.githubusercontent.com/apache/airflow/constraints-${AIRFLOW\_VERSION}/constraints-${PYTHON\_VERSION}.txt"  
pip install "apache-airflow==${AIRFLOW\_VERSION}" --constraint "${CONSTRAINT\_URL}"

## Step 5: Initialize Airflow DB

airflow db init

## Step 6: Create Admin User

airflow users create \  
 --username admin \  
 --firstname John \  
 --lastname Doe \  
 --role Admin \  
 --email admin@example.com \  
 --password admin

## Step 7: Start Airflow Web Server

airflow webserver --port 8080

## Step 8: Start Scheduler in New Terminal

source airflow\_venv/bin/activate  
airflow scheduler

## Access UI

http://localhost:8080