

# Time Series: Bitcoin Price Prediction Case Study

Dataset: bitcoin.csv

## Context

**Bitcoin is a decentralized digital currency** that uses encryption schemes, decentralized consensus, and other mechanisms to verify transactions and ensure security. It is a revolutionary cryptocurrency that has signaled a paradigm shift in the meaning of wealth and payments, and it has attracted extensive attention from investors, researchers, regulators as well as print & online media all over the world.

## Objective

An unusual feature of Bitcoin price is the **large fluctuation in contrast to traditional financial assets** (such as gold, stock indexes, and commodities). This dataset consists of monthly average closing prices of Bitcoin from Dec 2011 to March 2021. We have to build a time series model using the ARIMA model to predict the monthly average closing price of Bitcoin.

## Data Dictionary

- `Timestamp`: Date when the price was collected
- `Close`: The closing price of Bitcoin