

<https://www.google.com/finance>

<https://api.binance.com>

Airflow

```
producer.send('bitcoin_prices',  
json.dumps(data).encode('utf-8'))
```

```
query = "SELECT timestamp, google_finance, coinmarketcap FROM  
spark_streams.bitcoin_prices"
```

Kafka

Spark

Cassandra

Streamlit

```
spark_df = spark_conn.readStream \  
    .format('kafka') \  
    .option('kafka.bootstrap.servers', 'broker:29092') \  
    .option('subscribe', 'bitcoin_prices') \  
    .option('startingOffsets', 'earliest') \  
    .load()  
  
streaming_query = \  
(selection_df.writeStream.format("org.apache.spark.sql.cassandra")  
    .option('checkpointLocation',  
    '/tmp/checkpoint')  
    .option('keyspace', 'spark_streams')  
    .option('table', 'bitcoin_prices')  
    .start())
```