# Introduction

In this lesson, we will have an insight into Stream Processing & it's use cases.

**We'll cover the following**



## Rise Of Data-Driven Systems #

Our world today is largely data-driven & is progressing towards becoming completely data-driven. With the advent of IoT Internet Of Things, entities have gained self-awareness to a certain degree, they are generating & transmitting data online at an unprecedented rate. They are capable of communicating with each other and taking decisions without any sort of human intervention.

## Use Cases For Data Stream Processing #

Primary large-scale use of IoT devices is in industry sensors, smart cities, electronic devices, wearable healthcare body sensors etc.

To manage the massive amount of streaming data we need to have sophisticated backend systems in place to gather meaningful information from it and archive/purge not so meaningful data.

The more data we have, the better our systems evolve. Businesses today rely on data. They need customer data to make future plans & projections. They need to understand the user’s needs & their behaviour. All these things enable businesses create better products, make smarter decisions, run effective ad campaigns, recommend new products to their customers, gain better insights into the market etc.

All this study of data eventually results in more customer-centric products &

increased customer loyalty.

Another use case of processing streaming-in data is tracking the service efficiency, for instance, getting *Everything Is Okay* signal from the IoT devices used by millions of customers.

All these use cases make stream processing key to businesses and modern software applications. *Time-series databases* is one tech we discussed which persist and run queries on real-time data, ingesting in from the IoT devices.

In the next lesson let's have an insight into the components involved in data stream processing. We will also look at some of the key architectures in the domain of data processing.