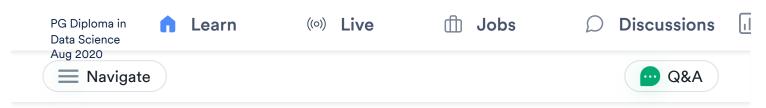


# Introduction

In the previous session, you explored the first three steps of basic steps for forecasting. In this session, you will explore the fourth step that is building and evaluating the forecast models.

Let's quickly understand what you will learn in this session from Chiranjoy.





- 1. In this session, you will learn how to build a model and forecast using a set of techniques called smoothing techniques.
  - Smoothing techniques remove the noise components and retain the systematic patterns of the time series, i.e. level, trend, and seasonality.
- 2. Along with building models, you will also learn how to evaluate these models by using some popular error measures.

The models that you will learn in time-series forecasting I and II have been performed on an airline passenger traffic dataset. It has the data on the number of passengers that have travelled with the airline on a particular route for the past few years. Using this data, they want to see if they can forecast the number of passengers for the next twelve months. You have been briefed about the dataset and the problem statement in the previous session. However, you can download the dataset again from the link below.



Also, please note that the Python notebooks used for all the models in the module of time series forecasting - I have been provided below. But we recommended that you code along with the instructor and come up with your own notebook so that you gain ample practice.



### Guidelines for in-module questions

The in-video and in-content questions for this module are not graded. Note that graded questions are given in a separate session labelled 'Graded Questions' at the end of this module. These questions will adhere to the following guidelines:

	First Attempt Marks	Second Attempt Marks
Question with 2 Attempts	10	5
Question with 1 Attempt	10	o

## People you will hear from in this session

#### **Subject Matter Expert:**

### Chiranjoy Chowdhuri

Deputy General Manager - Data Science, Mahindra Group

Chiranjoy is a data science and artificial intelligence leader at Mahindra Group. Before Mahindra, Chiranjoy has worked at McKinsey and JP Morgan Chase in customer, operations and risk analytics. He holds a Masters degree in Operations Research from IIT Bombay.

