

# DATA ANALY TICS

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**SYLLABUS**

*Full time – 4 weeks*



## OVERVIEW

This training will give you all the basic knowledge of data analytics. This training is specifically designed for professionals who want to upgrade their skills in data analysis so they can make the most of their work and jump to the next level. Everything that we teach in this training is used in 90% of the companies over the world or can somehow be implemented in order to boost productivity and efficiency.

After these 4 weeks, our students will be able to create request, clean their data, explore their data in order to visualize and present their findings. Whether you are a professional in marketing, accounting, finance, community management, or any other field where data handling is required, you will leverage from this training in your job.



# TIMELINE

4 weeks with various business case project along the training

Timeline	Key concepts	Project	Location
1 week	<b>Module 1</b> <i>Advanced Excel</i>	<i>Module project</i>	<input type="checkbox"/> Home
	Data cleaning, advanced excel, data visualization, Power Query and M language, Power Pivot and Dax, Data modeling	Investment decision	<input checked="" type="checkbox"/> Weecode campus
1 week	<b>Module 2</b> <i>SQL</i>	<i>Module project</i>	<input type="checkbox"/> Home
	SQL vs NoSQL, Databases, creating multiple Joins, Data Cleaning, Subqueries, filtering and aggregating, SQL functions,	Allocation marketing budget	<input checked="" type="checkbox"/> Weecode campus
1 week	<b>Module 3</b> <i>Data visualization</i>	<i>Module project</i>	<input type="checkbox"/> Home
	Fundamentals, Visual and text manipulating, Calculation and analysis, Dashboards and story-points, Statistical analysis	Data visualization project of your choice	<input checked="" type="checkbox"/> Weecode campus
1 week	<b>Module 4</b> <i>Introduction to Python</i>		<input type="checkbox"/> Home
	Fundamentals of Python, variables, operators, Boolean, conditional structures, loop, functions, class. Libraries : Pandas, Numpy		<input checked="" type="checkbox"/> Weecode campus



# WHAT YOU WILL LEARN

## **1<sup>st</sup> Module: learn how to use excel properly**

During this first module, you will dive into advanced excel and the key concept of data handling. You will learn how the process and the best practices of data cleaning. You will understand how to project your database in the process in order to derive the most relevant findings. You will also learn some excel advanced features through useful formulas and PivotTables that will boost your productivity and the possibilities of data management. As a data analyst must provide deliverables after exploring data, you will learn data visualization to produce impactful presentations and decision making tools. Finally, We will go a little bit further into data management, by going through Power Query and it's language, M, an excel feature that will allow you to handle and connect multiple databases. Combined with PowerPivot and our introduction to DAX, you will have access to a powerful tool that will upset your data management behaviours.

All along this module you will be assigned a business case by small groups. In this case you will have to indicate to your investor whether he should invest in an Airbnb. You will have to deliver a small presentations and the files you created to solve this problem.



## **2<sup>nd</sup> Module: Database managing with SQL**

In this second module you will learn all you need to know about SQL. We chose to emphasize on SQL for you to be able to manage large databases. A data analyst must manage SQL perfectly! You will learn the concepts of SQL vs NoSQL. Afterward, we will dive into database management, and how to create a Database. You will learn how to create queries, joins and unions of multiple queries. Once you will be comfortable with the fundamentals we will go through SQL functions to handle numbers, string, filtering and aggregating, and date management. The last part will focus on securing your data and automate your actions and manage your users.

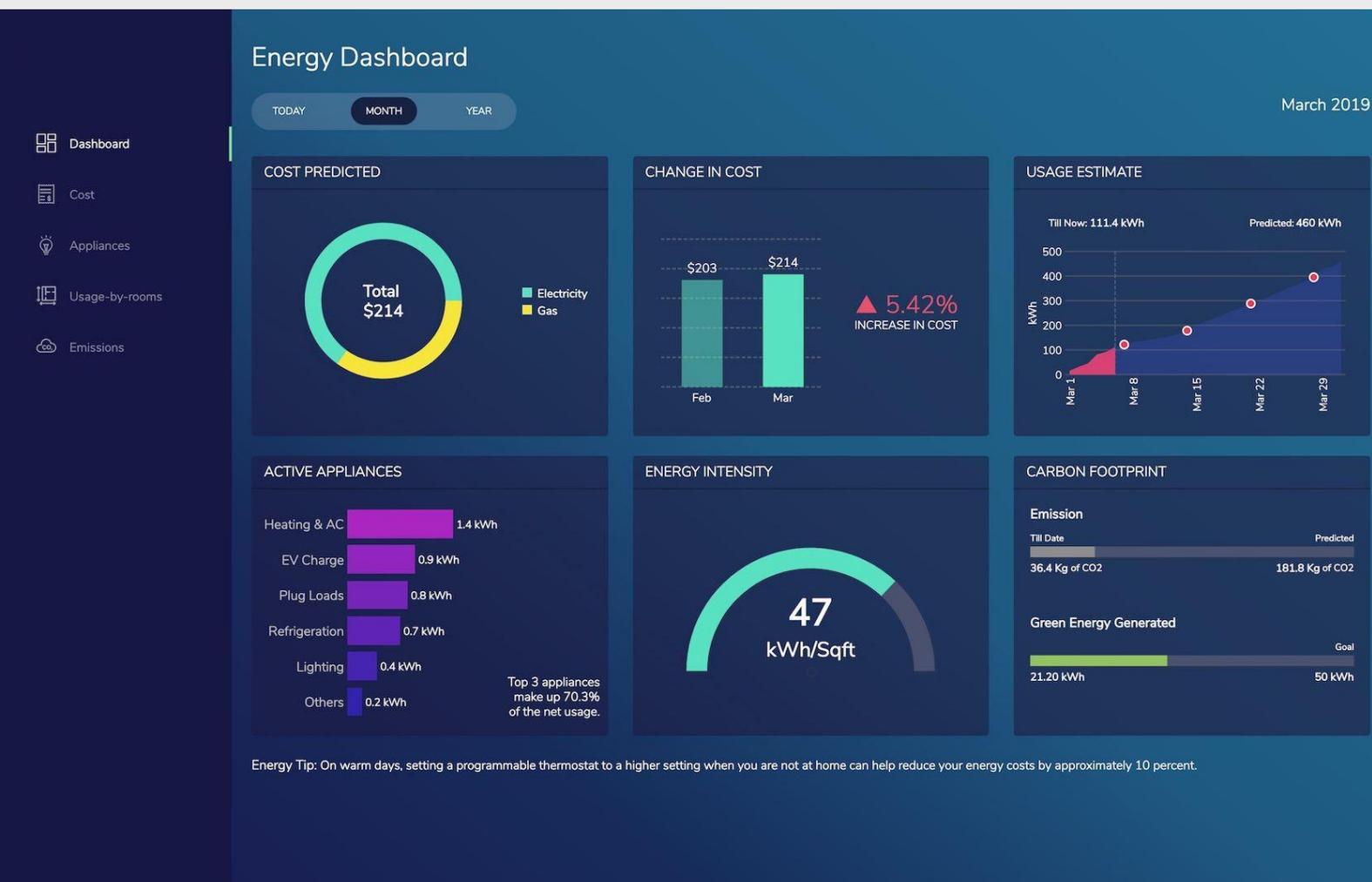
This module will ends with a project where you will have to analyse the consumer behaviours of your company in order to decide how to allocate your marketing budget. You will team up and deliver a small presentation as well as your work that lead you to your conclusion.

## 3<sup>rd</sup> Module: data visualization

In this module you will learn the fundamentals of a data visualization tool. Data visualization consists of communicating figures and raw information by transforming them into visual object such as tables, graphs, map ... This is the art of “telling” figures.

You will learn how to import data, analyse your data and report your data. We will go through the best practices and you will learn how to choose to report and display your findings. After learning how to define KPIs, you will learn how to create powerful Dashboards.

This module ends with a project where you will have to choose a data set from a list and create your own Dashboard in order to answer your problem statement.



## 4<sup>th</sup> Module:

### Fundamentals of Python for data analysis - Intro to data science

Python is one of the most powerful language nowadays and one of the most commonly used programming language. It is also an easy readable language and was ranked number one in the list of best Programming Languages to learn in 2020. In this module you will learn the fundamentals of this language and we will go through all the basics (variables, conditions, loop, class etc.). Then you will learn the basics of some Python libraries dedicated to data analysis and data science. This module will give you a hint of the possibilities offered by this language.

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