



# A customized training program in Data Science

CASE STUDY

DECEMBER 2020



# An Introduction to Data Science

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## INTRODUCTION

Since the beginning of 2020, Cybiant has received numerous training requests from global companies and government agencies to train their staff with knowledge and skills related to data science. As data keeps growing, organizations are now aware of the value of data and the need to enhance their capabilities in using data to extract insights to make important decisions.

Last year, Cybiant was selected to conduct a customized training program for one of the government agencies in South East Asia. The client has requested our firm to provide **an Introduction to Data Science** training for their staff. The aim of the training program was to ensure that the employees are familiar with the basic concepts of data science which includes, Python programming and machine learning.

Cybiant is uniquely positioned to provide the training service for the client, as our firm has the expertise and experience in developing internationally certified Big Data and Data Science programs. We have authored the “**Enterprise Big Data Framework**” which today is the leading vendor-independent Big Data education program in the world.

The Introduction to Data Science is based on the curriculum of the Enterprise Big Data Framework ([www.bigdataframework.org](http://www.bigdataframework.org)), which provides a holistic and compressive approach for enterprises that aim to leverage the value of data in their organizations. The framework covers all the essential aspects of Data Science that are necessary to understand and analyse massive quantities of data, which include topics such as data analytics, machine learning, the algorithms and processing techniques.



## THE TRAINING

The trainer taught the delegates how to adopt, adapt and apply the fundamental principles of Big Data and Data Science in their own organization to realize business benefits. The 1st day of the training program started with an introduction to Data Science and the related technologies (Artificial Intelligence and Machine Learning). The session explained the history and context of Big Data and Data Science in comparison to traditional data analysis techniques and solutions, making sure that the participants understand their fundamental characteristics and the differences between those concepts.



Once the participants were able to grasp the basic concept of Data Science, the trainer proceeded with teaching hands-on skills which involved two of the widely adopted programming language; R Programming and Python. In the Hands-on lab session, the trainer guided the participants to learn some basic techniques such as, importing data, reading data, cleaning and wrangling data with programming language. Furthermore, to enhance their skills in data analytics, the trainer also discussed the important topics such as Descriptive Statistics, Statistical Inference, Correlation, Regression, Classification, Clustering, Outlier Detection, Exploratory Data Analysis and Data Visualization. The participants were then instructed to work on a case study to encourage them to apply what they have learned throughout the training.



## THE OUTCOME

The customized training program was a success with an average rating of 9.2/10 given by all the participants. Our firm achieved the requirements and the objectives of the client in providing a holistic understanding of Data Science for all participants. With the knowledge learned, the participants managed to complete their training in different specialized areas such as Artificial Intelligence and Advanced Python Programming.

In order to win in the data economy, companies must focus on the most important aspect which is the “people”. Even with the most advanced computers and processors in the world, organisations will not be successful without the appropriate knowledge and skills. To know how we can customize training programs according to your organization’s requirement, please contact us at [info@cybiant.com](mailto:info@cybiant.com).



## ABOUT CYBIANT

Cybiant excels at helping businesses use their data to win in the data economy. Using next-generation technology and established IT Best Practices, we assist companies to control their technology assets, automate their processes and transform data into a strategic asset. Founded and headquartered in Kuala Lumpur, Malaysia, Cybiant now operates across the world and has assisted organizations on all continents. Cybiant is internationally recognized for its thought leadership, and has contributed to the establishment of Automation and Big Data best practices, many of whom are now used as standards by companies across the world.