|  |  |
| --- | --- |
| CLOUD COMPUTINg and Bigdata analytics  | **, 1001417563****2/10/2021**  |
|  |  |

# Part 1: PROJECT Proposal

## Subject of course project:

Big Data Analytics and Cloud Computing of BigNation

## Introduction about the company:

BigNation is an American automotive retailer, which provides new and pre-owned vehicles and associated services in the United States. The company was founded in 1996. Due the large volume of data from the dealer as well as customers, the IT team of BigNation is growing rapidly to catch up with the Infrastructure, Security, and Business Intelligence techniques. The company have more than 300 locations across the United States, and each of these locations must be responsible for the data from dealers in their own area. Additionally, the business analytics team is using mainly the Excel software to process the data from one to another the department.

## Business problem statement:

Since all their analysts are compiling data from different sources, it is time consuming plus the level of confidential of information from customers and dealers may not be guaranteed. Moreover, comparing to the other recent data processing software, Excel seem to be old and low tool . For this reason, they want to have right tools and better system because they need to keep track of all the information from every department of each location such as accounting team, marketing team and on. They would want to ensure that the working progress will go smoothly and there will be no unprecedent incident happening, the logistic team knows where to ship the cars, the procurement team can see where would get the raw data of customers and contracts from the dealers, and the Finance team can forecast if they are meeting their goals for the week, month, or quarter. Moreover, the service team can provide the good services for customer’s car based on their history in the past. And the salesman can advise and help the customers to choose the cars that they want basing on the customers’ hobby.

## Brief description of proposed solution:

The proposal to solve this problem is to have a Hadoop or Spark tool to generate the data which can be used for real-time processing and analyzing the large amounts of data or any databases that each department needed for their own purpose. Secondly, we also need the place to store all the information. Moreover, that place must be convenient and expenditure to the supervisors or employees to access in need. So, we will need to implement Cloud Services like Microsoft Azure to reduce the manpower and cost to upkeep the database.

## General Benefits to BigNation Company:

The upkeep and maintaining the data warehouse in-house will be costly and need massive space since the company need to buy the hardware, upgrade the hardware, and maintaining the database itself. The directors or executives will easily be able to see and collect the monthly numbers, reports and other information from each department by clicking a button in the system that will display the information that they need. The technician can see the history of the cars such as the kind of service that the car received in the past. The benefits to have Cloud Services and Hadoop or Spark is the cost saving and these information from customers and internal departments will be easily processed daily or monthly in the less amount of time than Excel. The analysts will provide better information to the employee and make any adjustment to the information to help the executives and managers do their job.

## Audience:

The audience that I will be presenting is the Executives, Directors, and Supervisors of each department because they will be seeing the benefit of the Hadoop or Spark associating with Cloud Services to provide faster process and get the answer to each department faster than computing in their old system.