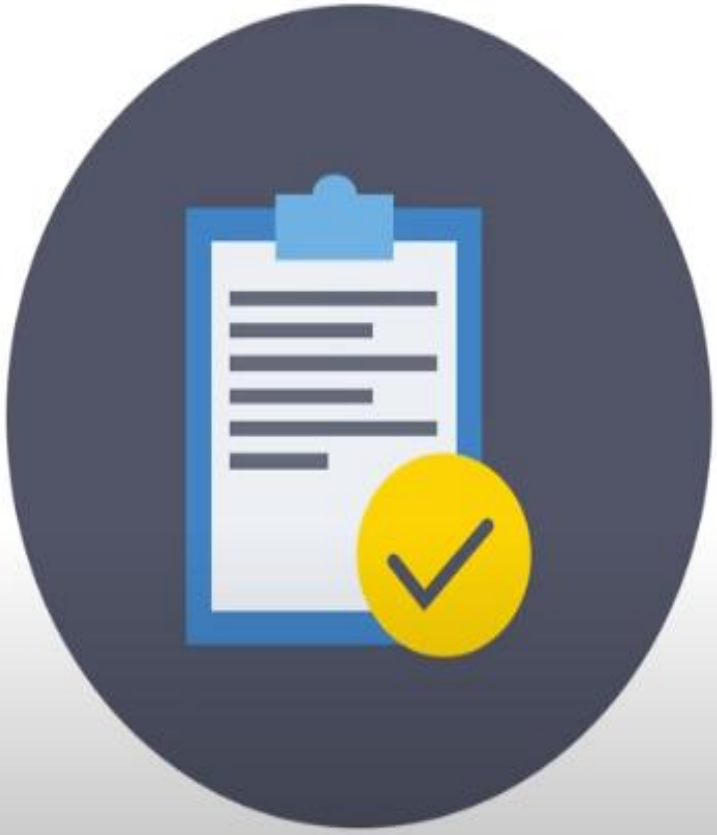
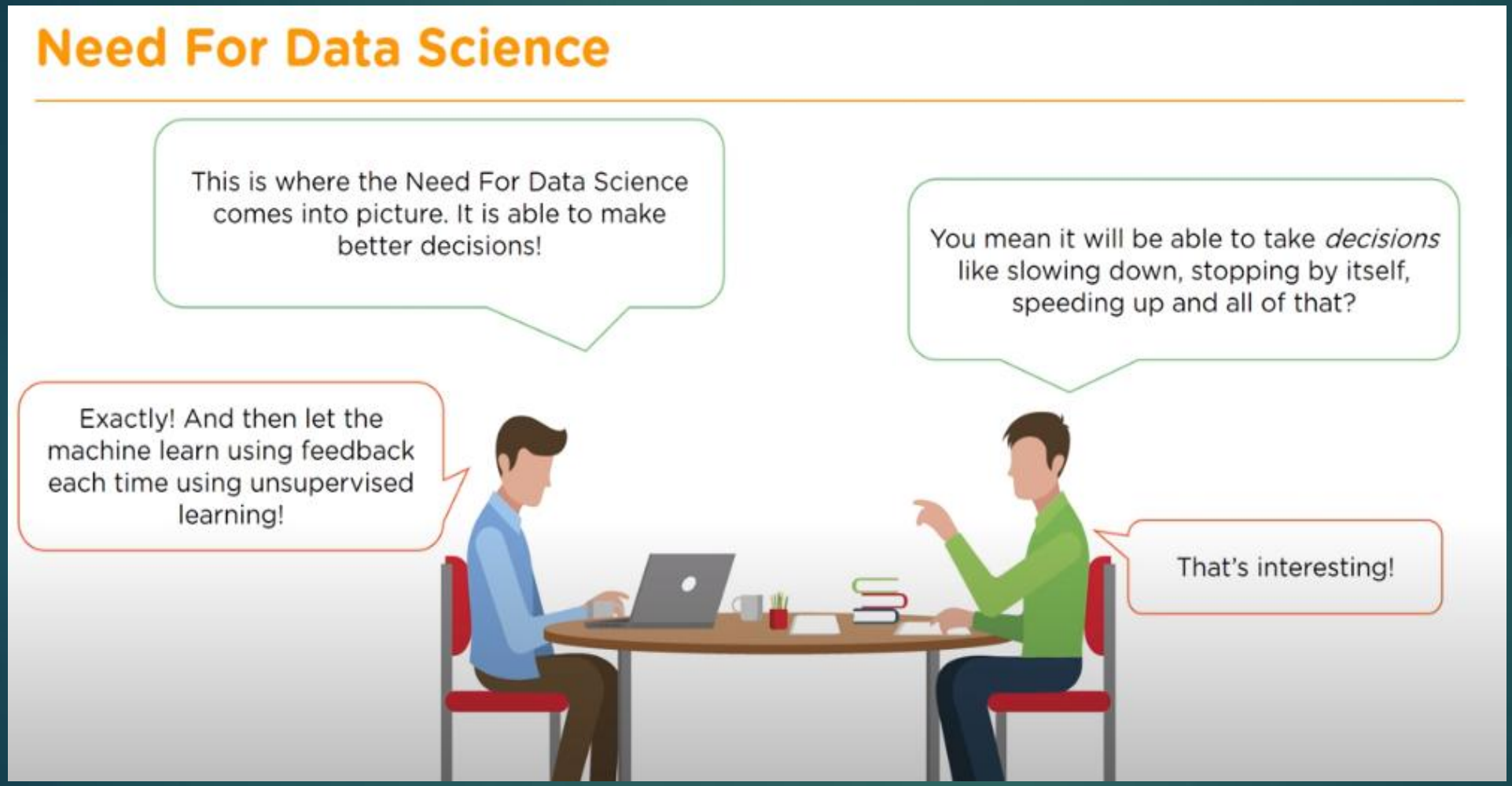
DATA SCIENCE

What's in it for you

- Need for Data Science
- What is Data Science?
- Data Science vs Business Intelligence
- The Prerequisites for learning Data Science
- What does a Data Scientist do?
- Data Science lifecycle with example
- Demand for Data Scientist



NEED FOR DATA SCIENCE



Need For Data Science

TESLA

Baidu 百度

WAYMO

Self driving cars will root out more than 2 million deaths caused by car accidents annually.

Need For Data Science

We're extremely sorry to inform you that there are no flights for the time selected. There's a connecting flight for the same time tomorrow.

1. Due to lack of data available, flights are often delayed or cancelled at the last minute
2. Due to improper route planning, customers don't get the flight for desired time and duration
3.

Need For Data Science

Dear Flyer, We regret to inform you that your flight has been cancelled due to delay from Airbus on account of engine delivery

1. Due to lack of data available, flights are often delayed or cancelled at the last minute
2. Due to improper route planning, customers don't get the flight for desired time and duration
3. Incorrect decisions in selection of right equipment leads to unplanned delays and cancellations

Need For Data Science

With Data Science, it has become possible to predict such disruptions and alleviate the loss for both airline and the passenger

Need For Data Science

Using Data Science, we can achieve the following:

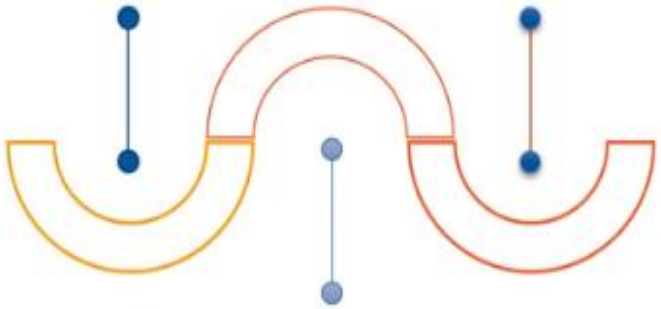
- Route Planning: Whether to schedule direct or connecting flights
- Predictive analytics model can be built to foresee flight delays
- Promotional offers depending on customer booking patterns
- Deciding which class of planes to purchase for better performance

Need For Data Science

Logistics companies like FedEx are using Data Science models for operational efficiency

Discover the best routes to ship

The best suited time to deliver



The best mode of transport

Need For Data Science

So Data Science is mainly needed for:

Better Decision Making

Whether A or B?

Predictive Analysis

What will happen next?

Pattern Discovery

Is there any hidden information in the data?

WHAT IS DATA SCIENCE?

- Data science is the study of data. It involves developing methods of recording, storing, and analyzing data to effectively extract useful information. The goal of data science is to gain insights and knowledge from any type of data — both structured and unstructured.
- Data science is related to computer science, but is a separate field. Computer science involves creating programs and algorithms to record and process data, while data science covers any type of data analysis, which may or may not use computers. Data science is more closely related to the mathematics field of Statistics, which includes the collection, organization, analysis, and presentation of data.

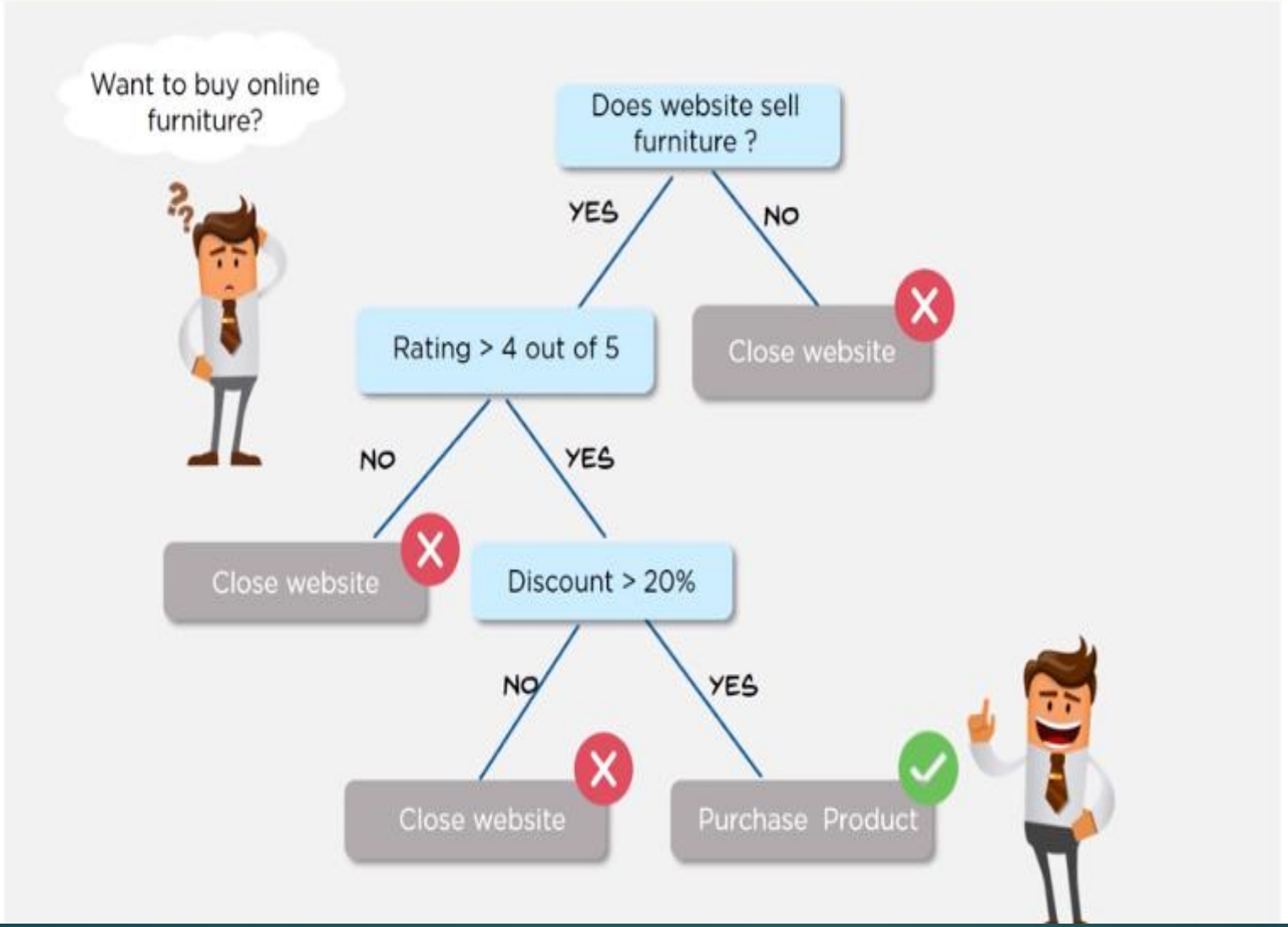
- Because of the large amounts of data modern companies and organizations maintain, data science has become an integral part of IT. For example, a company that has petabytes of user data may use data science to develop effective ways to store, manage, and analyze the data. The company may use the scientific method to run tests and extract results that can provide meaningful insights about their users.

What is Data Science?

Suppose, you have decided to buy furniture online for your new office

How do you choose the right website?

What is Data Science?

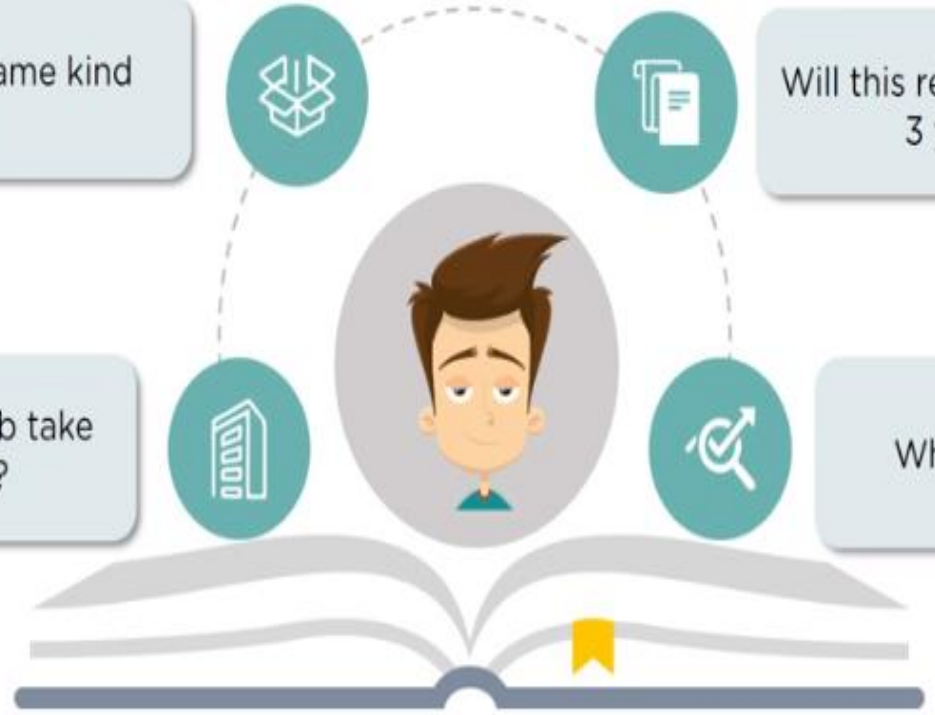


What is Data Science?

Data Science can answer a lot of other questions as well!

Which viewers like the same kind of TV shows?

Will this refrigerator fail in the next 3 years: Yes or No?

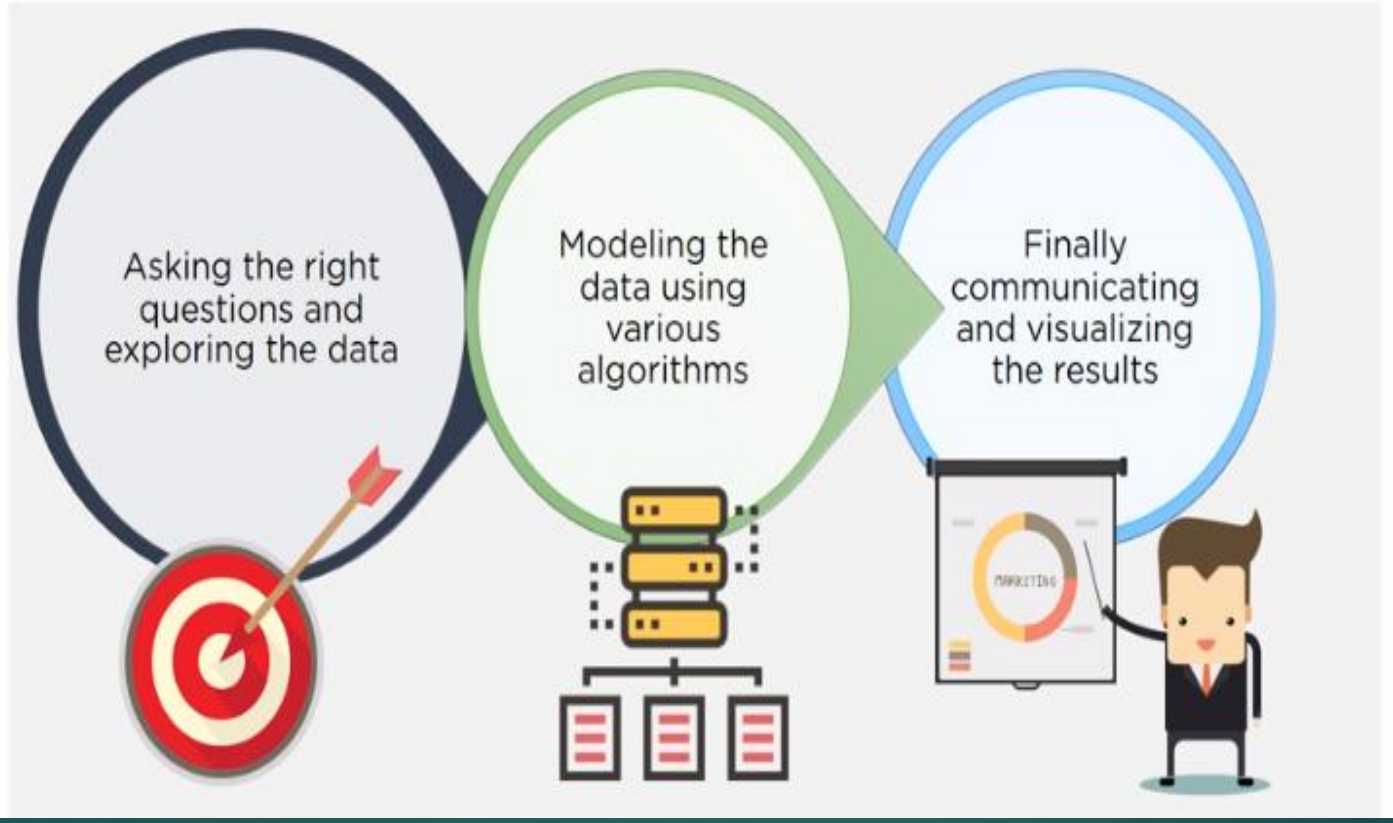
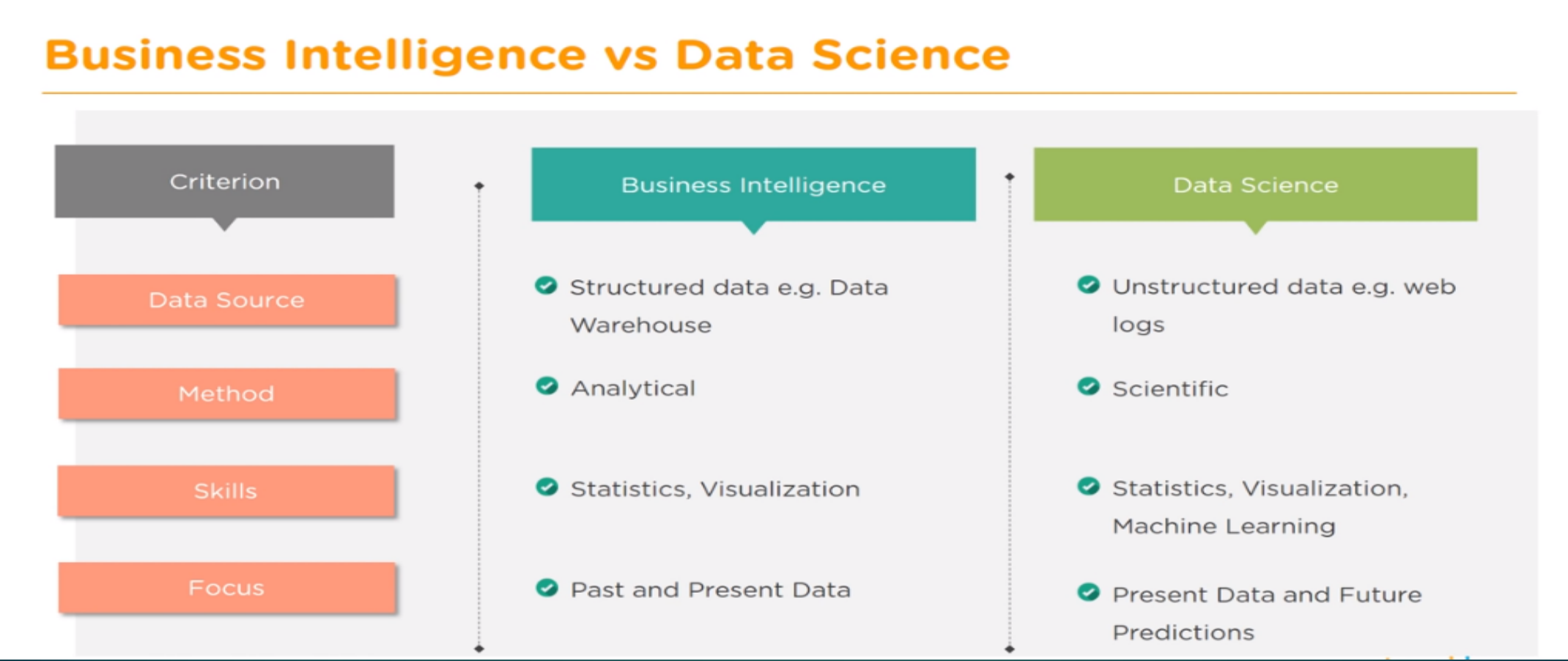


Which route should my cab take so that I reach faster?

Who will win the elections?

What is Data Science?

So, Data Science or Data-driven Science is about:



BUSSINESS INTELLIGENCE VS DATA SCIENCE