

# Usecase 4.1

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**So we defined data science as:** It's the process of asking interesting questions, and then answering those questions using data.

For any **Data project** we will go through these steps:

1. Defining the Problem Statement
  2. Collecting Data
  3. Data Quality Checking and Remediation
  4. Exploratory Data Analysis
  5. Building Machine Learning Models
  6. Model Evaluation
  7. Communicating Results
  8. Model Deployment
  9. Model Performance Maintenance in Production
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## Usecase 4.1

### Step 1: Defining the Problem Statement

- During the initial phase of our project, we gained insights into the used car market in Saudi Arabia, uncovering key aspects such as:
  - ✓ The region within Saudi Arabia that holds the largest share of the used car market:
  - ✓ The most frequently listed car brand for sale within the observed timeframe:
  - ✓ The car features that have the most substantial impact on a used car's price:
  - ✓ The typical price range for used vehicles around four years of age:

- As we progress to the next phase, our objective is to develop a predictive model for used car prices

## Step 2: Collecting Data

Used cars data is collected from scrapping online website called [Sayarah](#) for selling cars in 2023 and posted in [kaggle](#)

## Step 3: Data Quality Checking and Remediation

Done in the notebook

## Step 4: Exploratory Data Analysis

Done in the notebook

## Step 5: Building Machine Learning Models

To do in the notebook

## Step 6: Model Evaluation

To do in the notebook

## Step 7: Communicating Results

To do in the notebook

## Step 8: Model Deployment

Not applicable

## Step 9 : Model Performance Maintenance in Production

Not applicable