

Usecase 1

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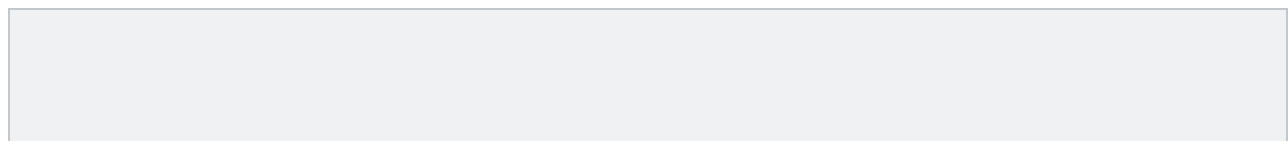


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So we defined data science as: It's the process of asking interesting questions, and then answering those questions using data.

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 1

Step 1: Defining the Problem Statement

We are eager to learn about the Riyadh Marathon. We would like to know:

1. In the Kingdom, which gender shows more interest in participating in the marathon over the years, and which is more likely to achieve top positions?
2. What is the fastest time recorded by a participant to reach the finish line over the years?
3. Is the event considered international? Can you provide an estimate of the proportion of participants from other countries?
4. Please begin your analysis, and don't hesitate to consider additional relevant questions.

Step 2: Collecting Data

Riyadh marathon data is available for 2022, 2023, and 2023 ([scrapped data](#))

Step 3: Data Quality Checking and Remediation

To do in the notebook

Step 4: Exploratory Data Analysis

To do in the notebook

Step 5: Building Machine Learning Models

Not applicable

Step 6: Model Evaluation

Not applicable

Step 7: Communicating Results

To do in the notebook

Step 8: Model Deployment

Not applicable

Step 9 : Model Performance Maintenance in Production

Not applicable