

## Data Analytic Process in Real-life Application scenario:

**Plan :** A theme park wants to improve guest experience and reduce wait times for its attractions.

**Prepare :** The park collects data on guest demographics, ticket sales, ride wait times, and park crowd levels.

**Process :** The data is cleaned to handle missing values and inconsistencies. The data is transformed to create new features, such as ride popularity and park crowd level by hour of day.

**Analyze :** The park applies descriptive and inferential statistics to identify patterns and relationships in the data, such as which rides have the longest wait times and which guest demographics prefer which rides.

**Share :** The park develops a simulation model using machine learning algorithms to forecast ride wait times based on park crowd level, ride popularity, and park operating hours.

**Act :** The park communicates the results to its operations team and implements the simulation model in its daily operations, adjusting staffing levels and ride capacities to minimize wait times. The park continuously monitors and evaluates the performance of the model and updates it as needed, taking into

account changes in park attendance and ride popularity.