

**Step 3:**

**Analyze Data**

Big Data Engineering

Computational Big Data Science

ACQUIRE

PREPARE

**ANALYZE**

REPORT

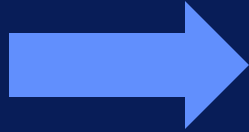
ACT

# Build Model

Input Data



Analysis  
Technique



Model



Model Output

# Categories of Analysis Techniques

Classification

Regression

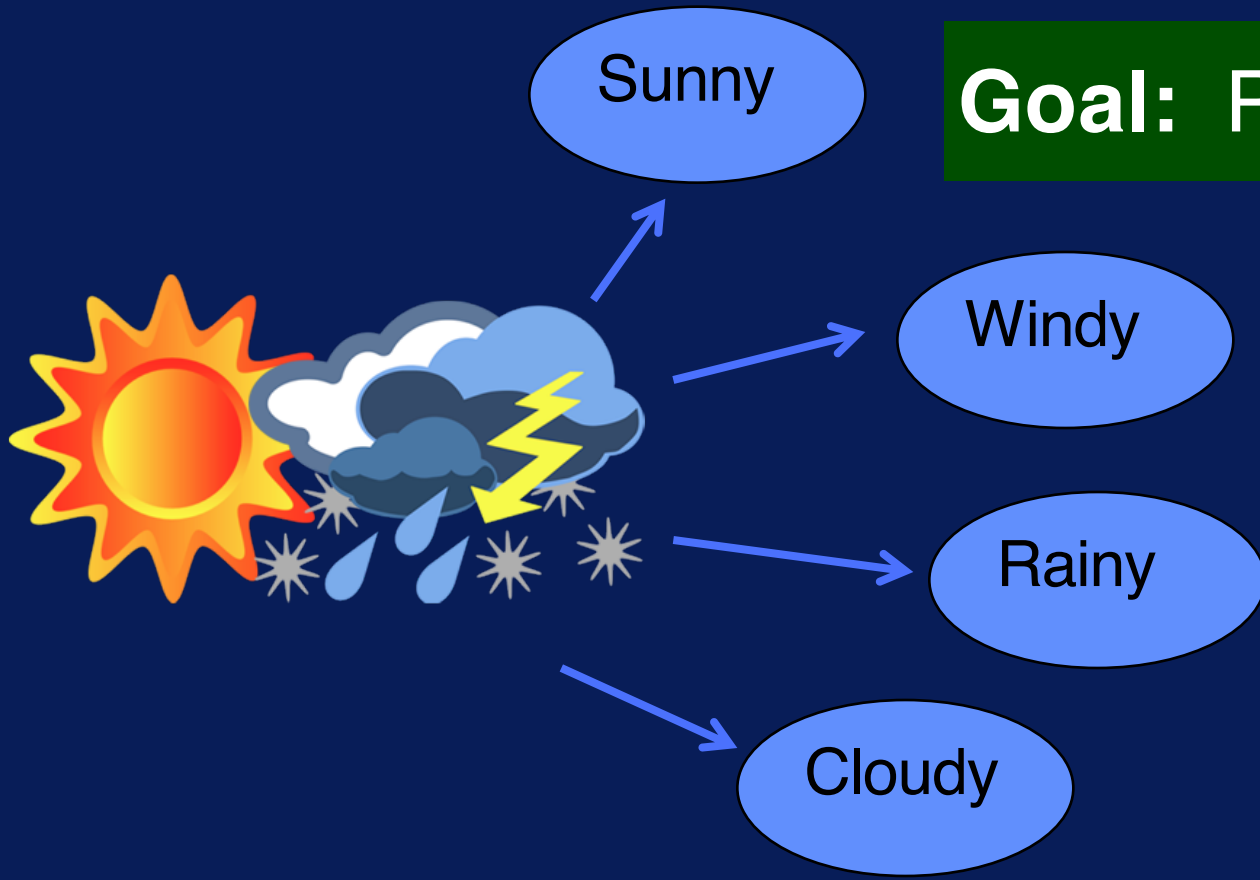
Clustering

Graph  
Analytics

Association  
Analysis

# Classification

**Goal:** Predict category



# Regression

**Goal:** Predict numeric value



# Clustering

**Goal:** Organize similar items into groups



# Association Analysis



**Goal:** Find rules to capture associations between items





# Graph Analytics

**Goal:** Use graph structures to find connections between entities



# Modeling

**Select technique**



**Build model**



**Validate model**

# Evaluation of Results

# Classification & Regression

Predicted  
Value



Correct  
Value

# Clustering



# Association Analysis & Graph Analytics



Investigate



Validate

# Determine Next Steps



Repeat analysis?

Take deeper dive?

Act on results?

Select technique

Build model

Evaluate

Classification  
Regression  
Clustering  
Association  
Analysis  
Graph Analytics

