

Development Part 1:

Step 1: Define Predictive Use Case

- **Objective:** Customer Churn Prediction
- **Description:** Customer churn prediction aims to identify customers who are likely to stop using a service or product.

Step 2: Select a Relevant Dataset

- **Objective:** Choose a dataset containing relevant information for customer churn prediction.
- **Description:** Look for a dataset that includes features like customer demographics, usage patterns, feedback, etc.

Step 3: Set Up IBM Cloud Watson Studio

- **Objective:** Create an IBM Cloud account and set up Watson Studio.
- **Description:** If you haven't already, sign up for IBM Cloud and create a Watson Studio project.

Step 4: Import and Preprocess Data

- **Objective:** Import the selected dataset into Watson Studio and prepare it for analysis.
- **Description:**
 1. In Watson Studio, create a new project and upload your chosen dataset.
 2. Explore the dataset, check for missing values, and perform data cleaning.
 3. Handle categorical variables through encoding or one-hot encoding.
 4. Normalize or standardize numerical features if needed.

Step 5: Select Features

- **Objective:** Identify relevant features for customer churn prediction.
- **Description:**
 1. Conduct exploratory data analysis to understand which features are most informative.
 2. Select a subset of features for model training.

Step 6: Train the Machine Learning Model

- **Objective:** Develop a predictive model for customer churn using IBM Cloud Watson Studio.
- **Description:**
 1. Choose a suitable machine learning algorithm (e.g., logistic regression, random forest, etc.).
 2. Split the dataset into training and validation sets.
 3. Train the model using the selected algorithm.

Step 7: Evaluate Model Performance

- **Objective:** Assess how well the model performs in predicting customer churn.
- **Description:**
 1. Use appropriate evaluation metrics (e.g., accuracy, precision, recall, F1-score).
 2. Analyze any potential overfitting or underfitting issues.

Step 8: Save the Model

- **Objective:** Save the trained model for future use and deployment.
- **Description:**
 1. Store the model in a format compatible with IBM Cloud Watson Studio.

Next Steps:

- **Development Part 2:** This phase could focus on deploying the model as a web service and integrating it into applications or systems.
- **Testing and Validation:** After deployment, thoroughly test the integrated system and validate the predictions.
- **Documentation and Training:** Document the project processes, configurations, and provide training to relevant teams.

Remember to adapt and adjust these steps based on the specific dataset and use case you're working with. This will serve as a foundation for your customer churn prediction project using IBM Cloud Watson Studio.