Project Title: Real-time Predictive Analytics with IBM Cloud Watson Studio

Project Phases:

**Phase 2: innovation**

**Objective**: customer churn prediction

Step1: **Log In to IBM Watson Studio**

Step2: **Create a New Project**:

1.After logging in, navigate to the IBM Watson Studio dashboard.
2.select the “create new project” option and create the project

**Step3: Define the Project**:

- Give the project a name and optional description.
- Choose the project type. In this case we can select "Data Science" or "Machine Learning."

**Step4: Select a Storage Service**:

- IBM Watson Studio allows you to store your data assets in IBM Cloud Object Storage or other cloud storage providers.
- Create the free trail option which will provide the storage

**Step5: Add Data Assets**:

- Upload your customer data, which should include information about customers, t
- Find the dataset from the git hub and upload it to the assets we can take it from different sources

**Step6: Choose a Runtime Environment**:

- Select the runtime environment for your notebook. You can choose from default environments or configure a custom environment if needed.

**Step7: Analyze and Prepare the Data**:

- start analyzing the customer data. We can perform data cleaning, feature engineering, and data visualization to better understand your dataset.
- We can prepare the data by converting or changing the data types column types and save it in Watson studio

**Step8: Data Preprocessing**:

- Preprocess the data, which may include handling missing values, encoding categorical features, and splitting the data into training and testing sets.

In this step we need to fix the missing values and converting the datas into the training and testing datasets

2. **Build a Churn Prediction Model**:

- Use machine learning techniques to create a predictive model. You can use libraries like scikit-learn or Watson AutoAI within Watson Studio to build models.

3. **Evaluate the Model**:
   - Assess the model's performance using appropriate evaluation metrics
   - We can assess using the accuracy prediction,fi scores and other methods
   - The Watson ai provides the auto ai for evaluation
4. **Visualize Results**:
   - Create visualizations and reports to communicate your findings and model performance effectively.
5. **Save the Model**:
   - After the visualization analysis we can save the model for the future use
6. **Deployment**:
   - Deploy the model to make predictions on new customer data. You can use IBM Watson Machine Learning for model deployment.