**Instructions for Setting Up and Running the Customer Churn Prediction Model**

**Prerequisites**

* Python 3.10.9 or above installed on your system.
* Basic familiarity with Python and command line interfaces.

**Step 1: Environment Setup**

1. **Clone or Download the Repository**:
   * Ensure you have the Model\_Deployment.py and requirements.txt files from the repository.
   * Repository link: <https://github.com/ThankiJay/Customer-Churn-Prediction>
2. **Create a Python Virtual Environment (Optional but Recommended)**:
   * Open your command line interface (CLI).
   * Navigate to the project directory.
   * Run python -m venv venv to create a virtual environment named 'venv'.
   * Activate the environment:
     + Windows: venv\Scripts\activate
     + MacOS/Linux: source venv/bin/activate
3. **Install Dependencies**:
   * In the project directory, run pip install -r requirements.txt to install the required Python packages.

**Step 2: Running the Model Deployment Script**

1. **Start the Web Application**:
   * While in the project directory and with the virtual environment activated, run streamlit Model\_Deployment.py.
   * This will start the web server and host your application.
2. **Access the Web Application**:
   * Open a web browser.
   * Go to the address provided in the command line output (typically something like http://127.0.0.1:5000/).
   * You should now see the web interface for customer churn prediction.

**Step 3: Using the Application**

1. **Input Customer Data**:
   * Follow the instructions on the web page to input the customer data. This involves filling out a form or uploading a file, depending on your application's design.
2. **Submit for Prediction**:
   * Submit the data using the provided button or interface.
   * The model will process the input and display the prediction.

**Troubleshooting**

* If you encounter any issues with package versions, refer to the requirements.txt file and ensure you have the correct versions installed.
* Make sure all necessary data files, if any, are placed in the correct directories as expected by the script.
* For any issues related to the web server not starting, check the console output for error messages and ensure the port being used is not already occupied.

**Support**

For further assistance, please contact [[jayyoges@buffalo.edu](mailto:jayyoges@buffalo.edu)] or [[rpatel38@buffalo.edu](mailto:rpatel38@buffalo.edu)].