**User Guide: Student Dropout Rate Prediction App**

**Created By**: Yakub Junaid  
**App URL**: <https://studentdropoutrateprediction.streamlit.app/>

**1. Introduction**

Welcome to the **Student Dropout Rate Prediction App**, an easy-to-use web application designed to predict whether a newly admitted student will graduate based on various academic metrics. This app allows institutions to make data-driven decisions regarding student retention and proactively offer support where needed.

**2. App Overview**

* **Title**: The app is titled *Student Dropout Rate Prediction App*.
* **Purpose**: To predict whether a student will graduate or not based on their academic data.
* **Prediction Model**: The app uses a pre-trained Random Forest model to make predictions.
* **Data Scaling**: The input data is scaled using a pre-trained scaler to ensure accurate predictions.

**3. Input Details**

Upon launching the app, you will be greeted with a form requesting the student’s details. Enter the student’s academic and demographic information in the respective fields.

**Input Fields:**

1. **Number of Courses**: Enter the total number of courses the student is registered for.
   * Range: 33 - 10,000
2. **Previous Qualification Grade**: Enter the student's previous qualification grade.
   * Range: 95 - 200
3. **Admission Grade**: Enter the student's admission grade.
   * Range: 95 - 200
4. **Tuition Fees Status**: Input whether the student's tuition fees are up to date.
   * Range: 0 (No) or 1 (Yes)
5. **First Semester Evaluations**: Enter the total units evaluated in the first semester.
   * Range: 0 - 45
6. **First Semester Approved Units**: Enter the total units approved in the first semester.
   * Range: 0 - 26
7. **First Semester Grade Units**: Enter the total grade units achieved in the first semester.
   * Range: 0 - 18
8. **Second Semester Evaluations**: Enter the total units evaluated in the second semester.
   * Range: 0 - 33
9. **Second Semester Approved Units**: Enter the total units approved in the second semester.
   * Range: 0 - 20
10. **Second Semester Grade Units**: Enter the total grade units achieved in the second semester.
    * Range: 0 - 19

After entering all the student’s details, the data will be structured into a Data Frame for further processing.

**4. Prediction Process**

Once you’ve entered all the details, follow these steps to get the prediction:

1. **Click on the "Click here to get your prediction" Button**: After completing the form, click the button to initiate the prediction process.
2. **Processing**: The app will take a few seconds to scale the data and run it through the pre-trained Random Forest model. During this time, a spinner will appear, indicating that the app is processing the input data.
3. **Prediction Output**:
   * If the prediction is 0, the app will display: *This student will not Graduate*.
   * If the prediction is 1, the app will display: *This student will Graduate*.