**Home Assignment:**

The objective of the provided code is to predict students' passing status based on their gender, age, and math score using a K-Nearest Neighbors (KNN) classification model. The code demonstrates how these factors influence academic performance, allowing for the identification of students who may need additional support or intervention to succeed.

* **Gender**: Represents the student's gender, categorized as 'Female' or 'Male', for analyzing performance differences.
* **Age**: Indicates the student's age in years, which may correlate with academic performance and maturity.
* **Math Score**: Contains the student's score in mathematics on a scale from 0 to 100, reflecting their proficiency.
* **Passing Status**: Shows whether the student has passed or failed, recorded as 'Yes' or 'No', serving as the target variable for prediction.







