Task: Participation in Kaggle Competition - "Unlocking Potential for Elite Training Programs"
Objective:
The objective of this task is to engage trainees in practical experience by participating in a Kaggle
competition titled "Unlocking Potential for Elite Training Programs." This competition aims to measure student persistence and completion rate in elite training programs. Trainees will solve the
competition locally on their machines, gaining hands-on experience in data preprocessing, model
building, and evaluation.

Competition Overview:
Competition Title: Unlocking Potential for Elite Training Programs
Competition Link:
https://www.kaggle.com/competitions/measuring-student-persistence-and-completion-rate

Competition Description: The competition involves predicting student persistence and completion rates in elite training programs. Participants are provided with datasets containing information about student demographics, enrollment details, course interactions, and outcome variables indicating persistence and completion status. The goal is to build predictive models that
accurately forecast student outcomes based on the available data.
Tasks and Instructions:

1- Competition Registration (5 marks):
a. Register for the competition on the Kaggle platform if you haven't already done so.
b. Access the competition page using the provided link.
c. Create your Team of 3 and give your team a name under KSA vision 2030. Ex: Tuwaiq, Hemah... etc

2- Data Exploration and Preprocessing (15 marks):
a. Download the competition datasets provided on the Kaggle competition page.
b. Explore the datasets to understand the features and target variables.
c. Perform data preprocessing tasks such as handling missing values, encoding categorical variables, and scaling numerical features.

3- Model Building (30 marks):

a. Split the preprocessed data into training and testing sets.
b. Implement machine learning models to predict student persistence and completion rates. You can start with simple models like logistic regression or decision trees.
c. Evaluate the performance of each model using appropriate evaluation metrics such as accuracy, precision, recall, or F1-score.

4- Model Improvement (20 marks):
a. Experiment with different machine learning algorithms and techniques to improve model performance.
b. Fine-tune hyperparameters of the selected models to optimize performance.
c. Explore feature engineering techniques to extract more meaningful insights from the data.

5- Submission, Evaluation and Presentation (20 marks):
a. Generate predictions for the test dataset using the trained models.
b. Submit your predictions to the Kaggle competition page.
c. Monitor the leaderboard to see your ranking and evaluate your model's performance relative to other participants.
d. Present your solution in a short presentation documenting your approach, methodologies, and findings throughout the competition process.
e. Reflect on the challenges faced, lessons learned, and insights gained from participating in the competition in your presentation.
6- First Three Positions in the bootcamp and Presentation (10 marks):
a. First three team in the bootcamp get the 10 marks.

Total Marks: 100

Note:
Trainees are encouraged to collaborate, share insights, and seek guidance from instructors and peers during the competition.
Utilize this opportunity to enhance your practical skills in data analysis, machine learning, and predictive modeling.
Remember to adhere to Kaggle's competition rules and guidelines throughout the competition process.