QUALITY EDUCATION:

Hi sir my name is duhitha. I am persuing my engeenering in CSE at uvce sir. The goal which I chose from sdg is **QUALITY EDUCATION**

The reason I choose this goal called is **QUALITY EDUCATION** because:

To enhance the quality of education, our goal is to implement comprehensive and inclusive strategies that foster a dynamic and engaging learning environment. We aim to ensure equitable access to educational resources, promote innovative teaching methods, and cultivate a culture of lifelong learning. By focusing on continuous improvement, accessibility, and the integration of technology, we aspire to empower learners with the knowledge, skills, and critical thinking abilities necessary for success in a rapidly evolving world. Through collaboration with educators, communities, and policymakers, we seek to create a transformative and student-centered educational experience that prepares individuals to thrive in diverse and globalized societies.

Quality education in India is a critical aspect of the nation's development and progress. While there have been significant improvements in access to education, challenges persist, and efforts are ongoing to enhance the overall quality of the education system.

India has made strides in increasing access to education, with initiatives like the Sarva Shiksha Abhiyan (SSA) focusing on universal elementary education. Efforts have been made to improve enrollment rates, especially for girls and marginalized communities.

The government has launched various initiatives to address educational challenges, such as the Right to Education (RTE) Act, which aims to provide free and compulsory education for children aged 6 to 14.

India has a robust higher education system with prestigious institutions like the Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs). However, challenges such as faculty shortages and the need for curriculum updates persist.

Here to find the solution for this I applied the following method:

To guide the Data Science/Machine Learning process, I will partially use the **CRISPDM model**, which consists of the following phases

Business Understanding

Define business objectives;

Evaluate the current situation;

Determine data mining/data science objectives.

 In a simplified view, the business problem at hand is to identify which variables impact the grades obtained by students at the end of basic education and how we can predict these grades.

Data Understanding

In the data understanding phase, the goal is to comprehend the available dataset.

Collect Initial Data The data has been made available on the challenge page.

Data Description A data dictionary is provided in the spreadsheet.

Data Exploration and Quality Check I have a simplified analysis in the notebook. This study includes analyses of missing data, removal of unnecessary features, correlations, etc.

Data Preparation

In this phase, activities such as selection, cleaning, creation of new features, integration with other data sources, and data reformatting are applied. This will be carried out in the next cells.

Reading training data

Modeling In this phase, the following steps are carried out:
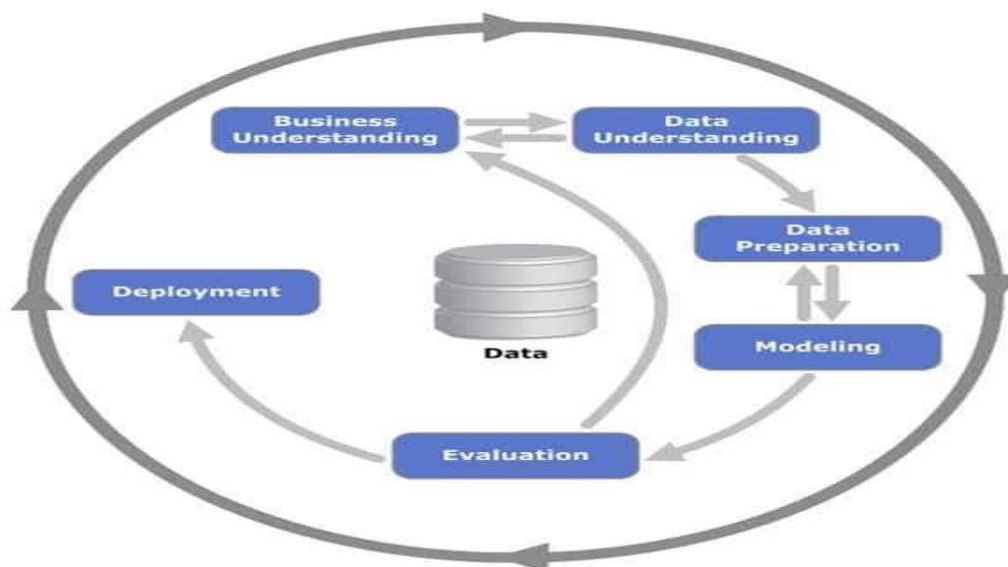Select the best modeling technique;
 Generate tests;
 Build models;
Evaluate the model

Select the columns that will be used in the model training.
After several tests, the selection is based on the best results obtained. **Build the models**
In this step, I construct the models in a list and iterate through them in a loop to train and compare the results saved in the dataframe.

Evaluation of Results.

Solution:

Improving the quality of education in India is a multifaceted challenge that requires comprehensive strategies and sustained efforts. Here are some possible solutions to enhance the quality of education in the country:

1. **Investment in Infrastructure:**
2. **Teacher Training and Development:**
3. **Recruitment of Qualified Teachers:**
4. **Curriculum Reforms:**
5. **Digital Learning Initiatives:**
6. **Focus on Early Childhood Education:**
7. **Inclusive Education Practices:**
8. **Community Engagement:**
9. **Student Assessments and Evaluation:**
10. **Skill Development Programs:**
11. **Monitoring and Evaluation:**
12. **Public-Private Partnerships (PPPs):**
13. **Awareness and Sensitization Campaigns:**
14. **Policy Reforms:**

Implementing these solutions requires collaboration among government bodies, educational institutions, communities, and other stakeholders. A sustained commitment to improvement and adaptability to evolving challenges is crucial for achieving lasting positive change in the quality of education in India.