**Predictive Maintenance for Industrial Equipment**

**Team Name : No Name**

**Team Member :**

1. **Mohamed**
2. **Magdy Mohamed Magdy**
3. **Ahmed Mohamed El Azab**
4. **Mohamed ismail Amer**
5. **Shehap elden saber**
6. **Adhem Abdelmohsen Elzewl**

**Dataset Link :** [**https://www.kaggle.com/datasets/hiimanshuagarwal/predictive-maintenance-dataset**](https://www.kaggle.com/datasets/hiimanshuagarwal/predictive-maintenance-dataset)

**Project Description:**

A company has a fleet of devices transmitting daily sensor readings. They would like to create a predictive maintenance solution to proactively identify when maintenance should be performed. This approach promises cost savings over routine or time based preventive maintenance, because tasks are performed only when warranted.

The task is to build a predictive model using machine learning to predict the probability of a device failure. When building this model, be sure to minimize false positives and false negatives. The column you are trying to Predict is called failure with binary value 0 for non-failure and 1 for failure.

**The Roles of team Members :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Role** | | **Description** | |
| Magdy | Data Collection Preprocessing , visualize , EDA | | Responsible for gathering relevant data, cleaning and transforming it to ensure quality, and organizing datasets for analysis. Handles missing values and normalization.and visualize data | |
| Mohamed sharshar | Machine Learning , NLP , Computer vision | | Develops algorithms for machine learning and predictions, selects models, trains them on data, and NLP part, creating a Computer vision | |
| Ahmed El azab | MLops | |  | |
| Mohamed Amer | GANZ | | Deploy models, use GANs for synthetic data. | |
|  | |  | |
|  |  | |  | |