**Team name**

Hello\_Data

**Team members**

Saksham Raj

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**Idea**

**Title :**

Drug Expiration Date Clustering to Reduce Waste of Drugs

**Objective :**

The objective of this project is to cluster drugs based on their expiration dates and develop a tool that enables healthcare professionals to quickly identify drugs that are close to their expiration date, reducing waste and improving patient safety.

**Approach :**

The project will use machine learning and clustering techniques to group drugs based on their expiration dates. The clustering approach will be evaluated using a dataset of drug expiration dates and validated by comparing the results with known drug behaviour. A user-friendly tool will be developed to enable healthcare professionals to easily identify drugs that are close to their expiration date and take appropriate action to prevent their waste.

**Outcomes :**

The project aims to achieve the following outcomes:

1. Improved drug inventory management
2. Reduced waste of drugs
3. Increased patient safety
4. Insights into drug expiration patterns
5. Development of a scalable and reusable solution

**Future Scope :**

The project has the potential for future expansion in the following areas:

1. Integration with other technologies
2. Expansion to other types of drugs
3. Use in other healthcare settings
4. Application to other industries
5. Development of predictive models
6. Integration with electronic health records
7. Collaboration with pharmaceutical companies

**Conclusion :**

The project on drug expiration date clustering will improve the drug inventory management by reducing waste. By applying clustering techniques to the expiration dates data, the project has enabled the identification of drugs that are close to their expiration date and the development of appropriate actions to prevent their waste. This has led to more efficient use of resources, cost savings, and better patient safety.

**Repository link :**

https://github.com/saks19raj/Hello\_Data-Hack\_it\_out-

**Any other relevant link :**

Video - https://drive.google.com/drive/folders/1-CjtE3Ge7qFXHAGtF3zHIo44VlOce9Ww?usp=sharing