



Data Glacier

Your Deep Learning Partner

Healthcare - Persistency of a Drug

Data Science project

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Team Details

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Problem Description

One challenge for all Pharmaceutical companies is to understand the persistence of a drug as per the physician's prescription. To solve this problem ABC Pharma company approached an analytics company to automate this process of identification.

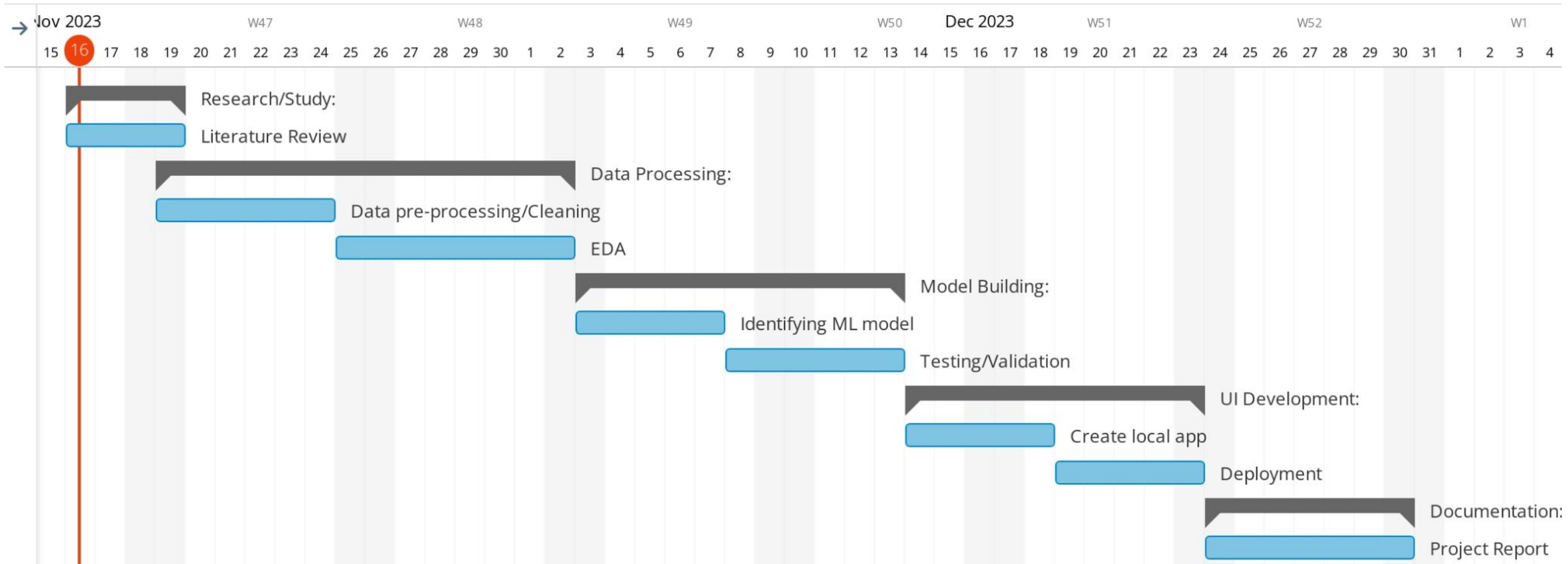
Business Understanding

- Post the development of a machine learning model, we can study what factors make a patient non-compliant in adherence to their prescribed treatment.
- We can suggest solutions to ABC Pharma as to how persistency can improve based on the factors our ML model shows.
- Below are some assumptions that can be made based on understanding of the persistency of the drug-
 - Trying different method of drug intake or a change in the medications.
 - Understanding the effectiveness of the drug.
 - Change in the course of medication by increasing or decreasing the intake.

Project Lifecycle

1. Research/Study:
 - a. Literature Review - Understand the problem statement, research different models used in this field
2. Data Processing:
 - a. Data Pre-processing - Cleaning the dataset, handling missing values and outliers etc.
 - b. EDA - Understanding the data, identifying relevant features, feature engineering
3. Model Building:
 - a. ML model selection - Try different models such as linear model, ensemble models, and explore deep learning
 - b. Testing/Validation - Fine tuning the model, Hyperparameter tuning, Optimizing the models via performance metrics
4. UI Development:
 - a. Build local app - Build local application, containerize the app
 - b. Deployment - Deploy the app on cloud
5. Documentation:
 - a. Project Report - Document the project, create a Powerpoint Presentation

Gantt Chart



Thank You



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