

# ➡ *Multiple Disease Prediction Using Machine Learning*...

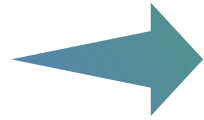
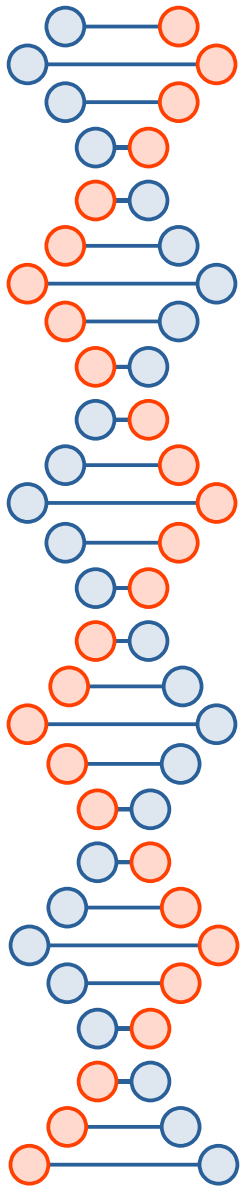


**SHIVANI - B200322**

**MOUNIKA - B200959**

**APARNA-B201041**

**24-04-2025**



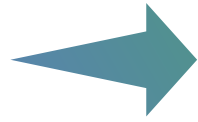
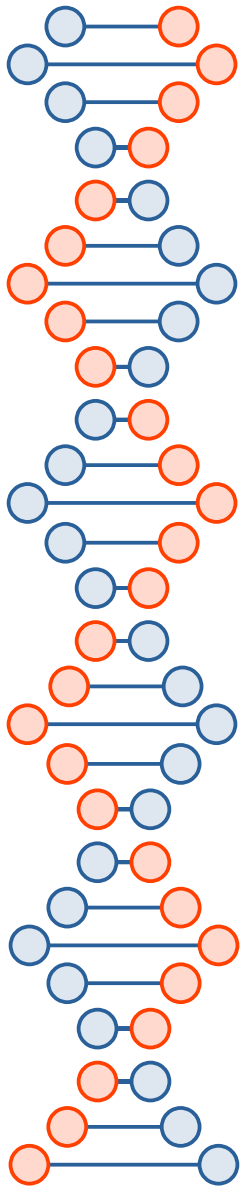
# Problem Statement

- In today's fast-paced world, early diagnosis of diseases is crucial for effective treatment.
- Manual diagnosis can be time-consuming, prone to human error, and often lacks accuracy.
- Many individuals suffer from diseases like heart conditions, diabetes, and Parkinson's without early symptoms.
- There is a need for an automated, accurate, and quick prediction system to assist medical professionals and individuals.



# Project Objectives

- To build a machine learning-based system that predicts the likelihood of:
  - ★ Heart Disease
  - ★ Diabetes
  - ★ Parkinson's Disease
- To improve early detection and prevention through predictive analysis.
- To create a user-friendly interface for inputting patient data and displaying prediction results.
- To evaluate the accuracy of different ML models for each disease.



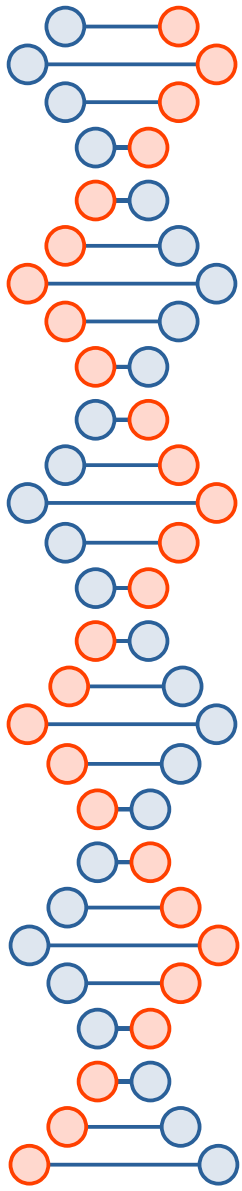
# Technologies & Tools Used

- **Programming Language:** Python
- **Libraries :** pandas, numpy, scikit-learn, matplotlib, seaborn
- **ML Models Used :** Logistic Regression, Random Forest, SVM, KNN
- **Dataset Sources :** Kaggle.com
- **Development Platform:** Jupyter Notebook / VS Code
- **Deployment :** Streamlit community



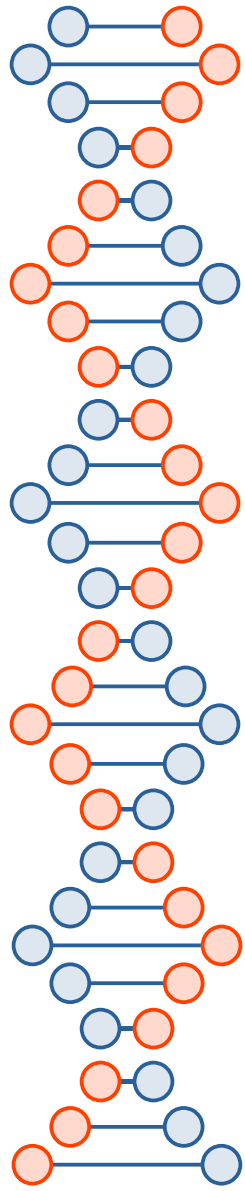
# System Architecture / Workflow

- **Input** : Patient medical parameters (like blood pressure, glucose, voice frequency, etc.)
- **Preprocessing**: Cleaning and normalization of data
- **Model Selection**: Use of ML algorithms to train disease-specific models
- **Prediction**: Based on input, predict disease status
- **Output** : Result displayed as Positive / Negative / Probability



# Results & Accuracy

Disease	Algorithm	Accuracy
Heart Disease	Random Forest	87%
Diabetes	Logistic Regression	80%
Parkinson's	SVM	90%



Thank you!

