

# Developing a Machine Learning-Based Multiple Disease Prediction System: A Comprehensive Analysis of Risk Factors and Disease Interactions

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**Abstract:** Using predictive modelling, the "Multiple Disease Prediction System" foretells the user's sickness depending on the symptoms are supplied as input to the system. The system evaluates the user's symptoms as input and outputs the likelihood that the disease will occur. The Random Forest Classifier is used for prediction, and Deep Learning Models for Diabetes, Heart Disease and Parkinson's Disease. This method is more accurate and a construction of a web application for prediction system is done.

**Keywords:** Parkinson's Disease, Predictive Modelling, Diabetes, Heart Disease

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