# "Diabetes prediction using machine learning" project

**Ask the question:**

Diabetes is one of the most common diseases in the world, and its impact on human health and health care costs is enormous. One way to manage diabetes is to identify and predict the risk of developing the disease in individuals early. Machine learning can provide valuable tools for creating predictive models that help doctors and patients make informed health decisions.

**Objectives:**

The goal of our project is to develop a machine learning model that can predict the probability of developing diabetes based on clinical data of patients. We strive to create a model with high accuracy, precision and completeness to help doctors and patients identify their risk of developing diabetes early.

**Suggested solution:**

We can measure blood glucose levels, body mass index, age, etc. b. We plan to use a diabetes dataset that includes information on various clinical features such as predict. For each algorithm, we adjust the parameters using the cross-validation method and select the model with the best performance.

**Data set:**

We use a diabetes dataset containing information on 768 patients and 8 different clinical features, including diabetes test result (1 = positive, 0 = negative). This dataset is provided as a CSV file.

**Additional steps:**

After building the models, we plan to perform feature significance analyzes to determine which clinical parameters have the greatest impact on predicting diabetes. We also intend to conduct further experiments with other Machine Learning algorithms and data preprocessing methods to improve the performance of the model.

**Conclusion:**

Our project aims to create an effective diabetes prediction model using Machine Learning techniques. We hope that our efforts will help doctors to identify the risk of developing diabetes in patients early and take appropriate measures to manage the disease.