**Model Experimentation and Packaging**

1. **Objective**

Train a machine learning model, perform hyperparameter tuning, and package the model for deployment.

1. **Model Details**

The model we have developed is to diagnose whether a patient has diabetes or not. This dataset is originally from the National Institute of Diabetes and Digestive and Kidney Diseases.

### **Dataset**

The original dataset has more than 769 records. The dataset contains nine columns.

* Pregnancies: Number of times pregnant
* Glucose: Plasma glucose concentration a 2 hours in an oral glucose tolerance test
* BloodPressure: Diastolic blood pressure (mm Hg)
* SkinThickness: Triceps skin fold thickness (mm)
* Insulin: 2-Hour serum insulin (mu U/ml)
* BMI: Body mass index (weight in kg/(height in m)^2)
* DiabetesPedigreeFunction: Diabetes pedigree function
* Age: Age (years)
* Outcome: Class variable (0 or 1)

