We aimed to predict diabetes diagnostically using data driven insights. Our project involved six steps:  
1. Loading the dataset and importing essential libraries.  
2. Exploring the data to understand.  
3.pre-processing the data for meaningful Analysis.  
4. visualizing the data to uncover hidden patterns  
5.Conducting features analysis to understand the influencing factors.  
6. Building and evaluating predictive models.  
  
Key Insights:

Through rigorous data analysis, we understand the critical factors influencing the risk of diabetes:  
1. Pregnancies: A higher number of pregnancies correlates with an elevated diabetes risk.  
2. Blood Pressure: An increased in blood pressure, BMI and skin thickness is correlated with an increased likelihood of developing diabetes.  
3. Glucose: Rising levels of glucose and insulin are linked to an increased risk of diabetes  
4. Insulin: Higher insulin levels were found to direct impact on diabetes risk with elevated levels increasing susceptibility.  
5.out of 768 patients, 268 patients have been diagnosed with diabetes.