

## **Diabetes Risk Prediction Using Machine Learning**

### **SDG Problem Addressed:**

Addresses SDG 3 – Good Health and Well-being, specifically focusing on early detection of diabetes to reduce health risks and support preventive care.

### **ML Approach:**

used supervised learning (Logistic Regression) to classify individuals at risk for diabetes. The model was trained using the Pima Indians Diabetes dataset.

### **Results:**

- Accuracy: 78%
- Precision and Recall scores indicate effective risk detection.
- Glucose, BMI, and Age were the most influential features.

### **Ethical Considerations:**

The model may reflect bias if the training data lacks diversity in gender, age, or ethnic background. We promote responsible AI use by ensuring data fairness and using the tool as a supplement, not a replacement for professional medical advice.