**Use case specification**

Pre diabetic symptoms monitoring

1. **Problem statement**

Pre-diabetes is a critical stage where blood sugar levels are elevated but not yet high enough to be classified as diabetes. Early detection and monitoring of pre-diabetic symptoms can prevent the progression to type 2 diabetes through timely interventions. Many people are unaware of their risk, and regular monitoring of lifestyle factors, such as diet, exercise, and sleep, is crucial.

Our solution involves an application for monitoring different lifestyle factors and physiological data which will help in early warning and preventive actions.

1. **Stakeholders**

* Patients (at-risk for diabetes)
* Healthcare providers (doctors, nurses)
* Data scientists

1. **Data sources**

* Public datasets (blood pressure, BMI, alcohol consumption, diet, hours of sleep)
* Simulated real-time data (blood pressure, BMI, alcohol consumption, diet, hours of sleep)

1. **Use cases**

* **Visualizations:** Dashboards for users and healthcare providers.
* **Predictive analytics:** Use machine learning to forecast risk trends.
* **Recommendations:** Personalized health advice based on data.