

**Project Design Phase-I**  
**Solution Architecture**

Date	3 November 2023
Team ID	592988
Project Name	Disease Prediction using Machine Learning
Maximum Marks	4 Marks

**Solution Architecture:**

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behaviour, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

**Solution Architecture of our model-**

**1> Early Detection:** By identifying possible health problems early on, disease prediction models enable prompt intervention and treatment. Patients' outcomes and prognosis may be greatly enhanced by this.

**2> Preventive care:** People can proactively lower their risk through lifestyle modifications, immunisations, and screenings by anticipating disease risk factors and vulnerabilities.

**3> Personalized medicine:** By customizing treatment regimens and treatments according to a patient's unique risk factors and genetic composition, disease prediction models can assist in providing more efficient and individualized medical care.

**4> Risk Reduction:** By educating people about their health risks and helping them make educated lifestyle choices, these models can help people lower their risk factors.

**5> Timely Interventions:** Predictive models can be used by doctors to identify patients who are at risk and to give them preventive care programmes and timely interventions.

**6> Research and Development:** By revealing previously unidentified unique risk variables and patterns, disease prediction models might provide valuable insights for medical research. This may result in the creation of fresh cures and treatments.

**7> Health Education:** Disease prediction models can be used to promote healthy behaviours, educate people about risk factors, and incentivize regular check-ups.

**Solution Architecture Diagram-**

