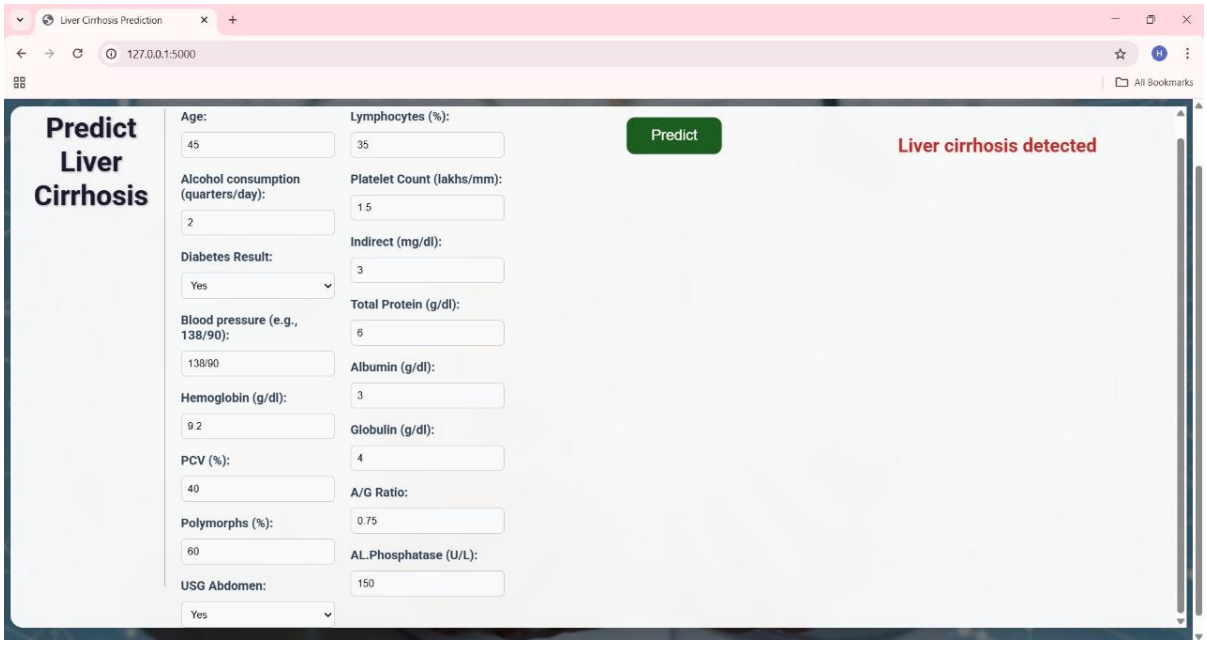
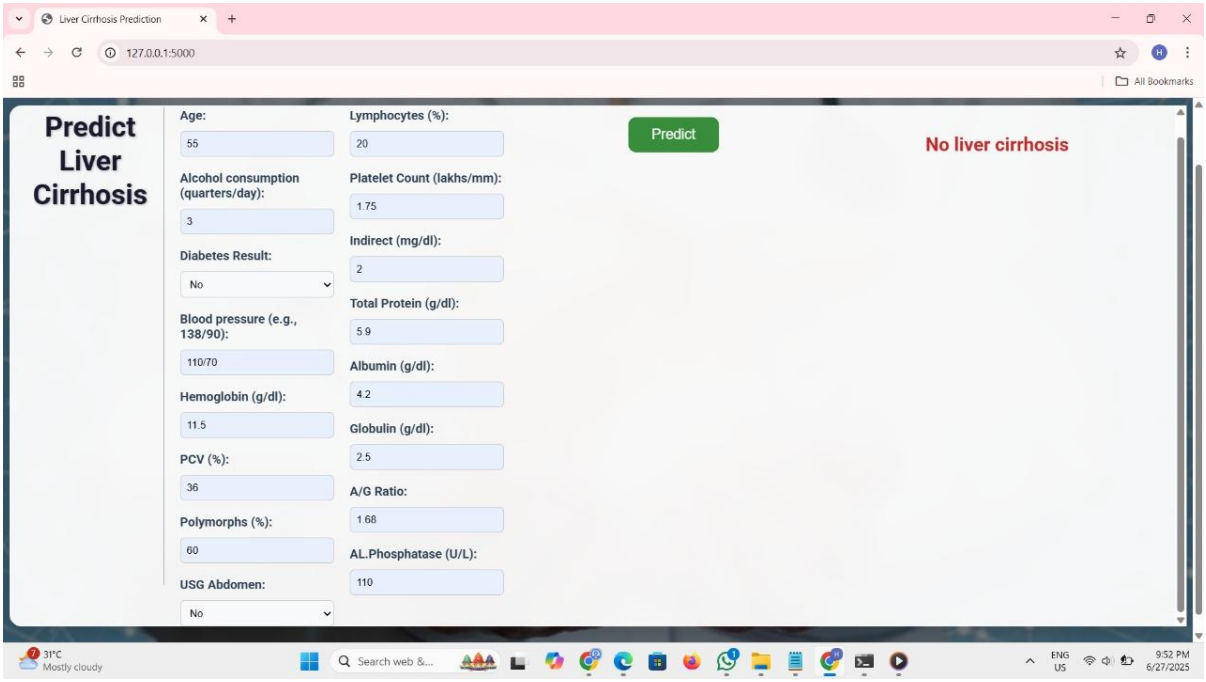
Project Report Format

1. **INTRODUCTION**
   - 1.1 Project Overview: **Revolutionizing Liver Care : Predicting Liver Cirrhosis using Advanced Machine Learning Techniques:-** A machine learning-based system that predicts liver cirrhosis risk using patient data to support early diagnosis and better liver care.
   - 1.2 Purpose: To help doctors detect liver cirrhosis early using machine learning for faster and more accurate diagnosis.
2. **IDEATION PHASE**
   - 2.1 Problem Statement
   - 2.2 Empathy Map Canvas
   - 2.3 Brainstorming
3. **REQUIREMENT ANALYSIS**
   - 3.1 Customer Journey map
   - 3.2 Solution Requirement
   - 3.3 Data Flow Diagram
   - 3.4 Technology Stack
4. **PROJECT DESIGN**
   - 4.1 Problem Solution Fit
   - 4.2 Proposed Solution
   - 4.3 Solution Architecture
5. **PROJECT PLANNING & SCHEDULING**
   - 5.1 Project Planning
6. **FUNCTIONAL AND PERFORMANCE TESTING**
   - 6.1 Performance Testing
7. **RESULTS**
   - 7.1 Output Screenshots





8. ADVANTAGES & DISADVANTAGES

Advantages

- Detects liver cirrhosis early and accurately
- Saves doctors time with fast predictions
- Reduces need for complex and costly tests
- Easy-to-use interface for healthcare staff
- Helps in better treatment planning

Disadvantages

- Needs good internet connection (if cloud-based)
- May not be 100% accurate without real hospital testing
- Doctors may find it hard to trust AI decisions
- Small datasets can limit performance
- Not usable in offline or remote areas without tech support

9. CONCLUSION:

The project *"Revolutionizing Liver Care: Predicting Liver Cirrhosis using Advanced Machine Learning Techniques"* successfully demonstrates how artificial intelligence can support early and accurate diagnosis of liver cirrhosis. By using patient data and machine learning models, the system helps doctors identify high-risk cases quickly and easily, improving the chances of timely treatment. With a user-friendly interface and scalable design, this solution has the potential to assist healthcare professionals, especially in areas with limited medical resources. Though there are some limitations, such as dataset size and clinical validation, the system lays a strong foundation for future advancements in AI-based healthcare support.

10. FUTURE SCOPE:

The project has great potential for future development. It can be enhanced by using larger and real-time datasets from hospitals to improve prediction accuracy. Integration with hospital management systems and electronic health records (EHR) can make it more useful in clinical practice. A mobile app version can help doctors and health workers access predictions on the go, especially in rural areas. The system can also be expanded to detect other liver-related diseases. Adding features like voice input, multiple language support, and more visual explanations will make it easier for doctors to use and trust. With proper testing and validation, this system could become a reliable tool for liver disease screening and early diagnosis worldwide.

11. APPENDIX

Source Code:

C:\Users\sarag\OneDrive\Documents\Revolutionizing-Liver-Care-Predicting-Liver-Cirrhosis-using-Advanced-Machine-Learning-Techniques.htm

Dataset Link:

C:\Users\sarag\OneDrive\Documents\liver-cirrhosis-prediction.htm

GitHub & Project Demo Link:

C:\Users\sarag\OneDrive\Documents\Project Demo.mp4