## 9. CONCLUSION

In this project, we developed a deep learning-based web application to classify rice grain types using transfer learning. Through proper data preprocessing, model training, and deployment using Flask, we successfully demonstrated an end-to-end pipeline that takes an image of a rice grain and predicts its type with significant accuracy.



This project reflects how AI can contribute to agricultural advancements and help farmers, traders, and researchers identify rice varieties accurately and instantly. Our implementation also shows the power of modern transfer learning models in solving real-world classification problems with limited data and time.