**CHAPTER-9**

**CONCLUSION**

In this project, we designed and implemented the traceability system of fruits and vegetables agricultural products based on the non-tampering and traceable characteristics of blockchain, and discussed the storage and query design of the system. To overcome the problems of high data load pressure and poor private security of the blockchain traceability system as the data grows, an on-chain and off-chain data storage method using ‘‘database + blockchain’’ is proposed. The public information displayed to consumers is stored in the supply chain to the local database, whose hash value by SHA256 algorithm was upload to the blockchain system. The private information encrypted by the CBC encryption algorithm is stored into the blockchain for sharing with relevant companies. The storage method proposed in this paper combines the actual situation, taking into account the need for encryption of corporate private information as well as the need for public supervision of supply chain public information, and reduce the pressure of data load on the chain. By storing the block number of the public information on the database, the association between the blockchain and the database is realized. The consumer obtains the public information from the database by scanning the QR code, and the system verifies the information according to the corresponding block number stored in the database to determine whether the product information has been tampered with. With the development of blockchain, in order to meet actual business needs, multi-chain is the future development direction. For future research, we will further explore the cross-chain technology between multiple chains and a new type of consensus mechanism suitable for traceability