**Form 1 : Project Information**

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| 1. **Team No :** 20 |
| 1. **Project Title :** Blockchain Technology in Agriculture Product Supply Chain |
| 1. **Team Details :**  |  |  |  | | --- | --- | --- | | **Sl. NO** | **Hall Ticket Number** | **Name** | | 1 | 20EG105609 | Ch.Thanmai | | 2 | 20EG105639 | A.Devika | | 3 | 20EG105712 | M.Harshith Varma | | 4 | 20EG105717 | N.Sujeeth Kumar | |
| 1. **Project Statement :**   The agricultural product supply chain is plagued by challenges such as lack of transparency, traceability issues, and inefficient record-keeping. These issues lead to difficulties in verifying the authenticity of products, delays in identifying and resolving supply chain disruptions, and increased chances of fraud. Traditional systems fail to provide a comprehensive solution to these problems, necessitating the exploration of innovative technologies like blockchain. |
| 1. **Source of Project :**   [1] M. M. Aung and Y. S. Chang, “ Traceability in a food supply chain : Safety and quality perspectives,” Food Control, vol. 39, pp. 172\_184, May 2014.  [2] T. Bosona and G. Gebresenbet , “ Food traceability as an integral part of logistics management in food and agricultural supply chain,” Food Control, vol. 33, no. 2, pp. 32\_48, 2013.  [3] J. Hobbs, “ Liability and traceability in agri-food supply chains,”in Quan- tifying the Agri-Food Supply Chain. Springer, 2006, pp. 87\_102.  [4] D. Mao, Z. Hao, F. Wang, and H. Li, “ Novel automatic food trading system using consortium blockchain,” Arabian J. Sci. Eng., vol. 44, no. 4, pp. 3439\_3455, Apr. 2018  [5] L. U. Opara and F. Mazaud, ``Food traceability from \_eld to plate,'' Outlook Agricult.,  vol. 30, no. 2, pp. 239\_247, 2001.  [6]. Li, Q., Wang, M., Gu, W.: Computer Vision Based Systemfor Apple Surface Defect Detection Computers and Electronics in Agriculture 36, page 215-223. |
| 1. **Final Outcome :**   The implementation of blockchain technology in the agriculture product supply chain creates a paradigm shift towards a more secure, transparent, and efficient system. Through improved traceability, data accuracy, and stakeholder collaboration, blockchain becomes a catalyst for the growth, sustainability, and integrity of the agricultural supply chain. |
| **7.What are parameters consider for project evaluation :**   1. **Cost-Benefit Analysis:**    * Evaluate the overall costs associated with implementing blockchain technology, including development, training, infrastructure, and maintenance, against the anticipated benefits such as increased efficiency, transparency, and reduced fraud. 2. **Return on Investment (ROI):**    * Measure the expected financial return on the investment made in implementing blockchain technology. Consider both short-term and long-term returns in terms of cost savings, increased productivity, and improved supply chain performance. 3. **Stakeholder Engagement and Satisfaction:**    * Assess the level of engagement and satisfaction among key stakeholders, including farmers, suppliers, distributors, and consumers. Their acceptance and active participation are crucial for the success of the project. 4. **Transparency and Traceability:**    * Measure the degree of transparency achieved in the supply chain through blockchain implementation. Evaluate how well the technology enables traceability of products from farm to consumer, providing visibility into the entire process. 5. **Efficiency Improvement:**    * Evaluate the impact of blockchain on supply chain efficiency. Measure the reduction in processing times, elimination of manual errors, and overall stream |
| 1. **Development Environment :**   Hardware Requirement :   * Processor Type : Pentium -IV * RAM : 512 MB RAM * Hard Disk : 20 GB   Software Requirements :   * Operating System : Windows 2007 * Script : Python IDLE , GUI (TKINTER)   **Signature Supervisor**  Mr.K.Sadanandam  **Signature of Team Members :**     1. Ch.Thanmai (20EG105609) 2. A.Devika (20EG105639) 3. M.Harshith Varma (20EG105712) 4. N.Sujeeth Kumar (20EG105717) |