**Project Design Phase-I Proposed Solution Template**

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| Date | 23-10-2023 |
| Team ID | PNT2022TMID592101 |
| Project Name | Project - Predicting lumpy skin disease |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | Lumpy skin disease is a highly contagious and economically devastating viral disease affecting cattle. The problem is the lack of a reliable and early detection method, which can lead to rapid disease spread, economic losses for farmers, and a potential threat to food security. Developing an effective prediction model is essential to mitigate these risks. |
| 2. | Idea / Solution description | Our proposed solution is to develop an AI-based predictive model that can accurately forecast the occurrence of lumpy skin disease in cattle. This model will utilize a combination of historical disease data, environmental factors, and cattle health parameters to make real-time predictions. It will be accessible through a user-friendly interface, allowing farmers and veterinarians to input relevant data and receive immediate risk assessments. |
| 3. | Novelty / Uniqueness | The uniqueness of our solution lies in its integration of advanced AI and machine learning algorithms with domain-specific data. We will incorporate cutting-edge predictive analytics, which will continuously adapt to new information, making it more accurate over time. Additionally, our solution aims to utilize remote sensing technology to detect environmental factors that can influence the spread of the disease. |
| 4. | Social Impact / Customer Satisfaction | Our solution's social impact is twofold. Firstly, it will significantly reduce the economic losses for cattle farmers by enabling early disease prediction and implementing preventive measures. Secondly, it will contribute to food security by preventing the rapid spread of lumpy skin disease, which can lead to meat and dairy supply disruptions. Customer satisfaction will be achieved through user-friendly interfaces, timely alerts, and easy access to expert advice. |

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| 5. | Business Model (Revenue Model) | We propose a revenue model based on a  subscription-based service for cattle farmers and veterinarians. We will offer tiered subscription plans with varying levels of features and support. Additionally, we can explore partnerships with government agencies and livestock insurance providers to provide bulk access. Revenue will also be generated from data analysis and insights, which can be sold to relevant stakeholders in the agricultural industry. |
| 6. | Scalability of the Solution | ur solution's scalability is inherent, as it relies on cloud-based infrastructure and scalable AI algorithms. It can be easily expanded to cover larger geographic regions and accommodate a growing number of users. The infrastructure will be designed to handle an increasing volume of data and requests without compromising performance. This scalability will ensure that the solution remains effective as it is adopted by more users and regions.  This template provides a comprehensive overview of your proposed solution for predicting lumpy skin disease, covering the problem statement, the solution itself, its uniqueness, societal impact, revenue model, and its scalability. This structured approach will help in presenting your project to  stakeholders, investors, and potential collaborators. |