**PROJECT DESIGN PHASE-I**

**PROPOSED SOLUTION**

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| **Date** | 24 September 2022 |
| **Team ID** | PNT2022TMID00031 |
| **Project Name** | Project – IoT Based Smart Crop Protection System For Agriculture. |

**PROPOSED SOLUTION TEMPLATE:**

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| **S.No.** | **Parameter** | **Description** |
| **1.** | **PROBLEM STATEMENT** | An intelligent crop protection system helps the farmers in protecting the crop from the animals and birds which destroy the crop. |
| **2.** | **IDEA / SOLUTION DESCRIPTION** | The device will detect the animals and birds using the Clarify service. If any animal or bird is detected the image will be captured and stored in the IBM Cloud object storage. It also generates an alarm and avoid animals from destroying the crop. |
| **3.** | **NOVELTY** | * Provides a feedback tab for farmers to convey their views about the accuracy of the soil moisture levels, temperature, and humidity values. * Accurate prediction of soil moisture levels, temperature, and humidity values. * Suggests preventive measures to protect the plants from various animals and birds. * Provides a tab for getting the images of animals and birds that enters the field. |
| **4.** | **SOCIAL IMPACT** | * To save crops from animals and birds. * Mostly used by farmers and people involved in protection of agricultural activities. * It increases crop yield thereby enhances the growth and livelihood. |
| **5.** | **BUSINESS MODEL** | * We can provide pop-up ads, overlay ads, and other advertising   services from third party advertisers.   * A virtual assistant can be provided to help users navigate through the application. |
| **6.** | **FEASIBILITY OF IDEA** | * It is compatible with all browsers. * It is very user friendly and simple to use. * Economical and efficient solutions are provided. * Alarm will be immediately generated and will keep away the animals from destroying crop. |
| **7.** | **SCALABILITY OF SOLUTION** | * The application will be very effective and detecting the soil moisture levels, temperature, and humidity values. * User feedback can be analysed frequently to improve the application’s efficiency. * The models will capture the image of the animals and birds and store in the IBM cloud object storage. |