

Project Design Phase-I
Proposed Solution Template

Date	25 September 2022
Team ID	PNT2022TMID35185
Project Name	Digital Naturalist - AI Enabled tool for Biodiversity Researchers
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> There is a need for a way to analyze and identify the type of living beings in a particular environment a person finds themselves in, so that they can gain knowledge about different species. There should be a recognition software that is able to recognize the species in any given angle.
2.	Idea / Solution description	<ul style="list-style-type: none"> The aim is to develop a recognition software using the concept of supervised learning that takes in the image of various species as the input and provides the species name as output.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> Unlike the other open source solutions available, this application not only classifies an image as either plant or animal but also tells about the individual species name. There are also some solutions available which either work only for one class of species, i.e, either plants or animals.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> Creates a set of model citizens who are aware of the various species in their surroundings prompting them to be more environmentally conscious. Creates a way to identify the indigenous and endangered species so that people can spread awareness about them and protect those species.
5.	Business Model (Revenue Model)	<p>Business to Consumer model</p> <ul style="list-style-type: none"> The solution is a reliable recognition software planned to be created as an application with

		<p>which the consumers can identify the type of living beings in a particular environment.</p> <ul style="list-style-type: none"> ● It follows a non-monetary revenue model where the consumers aren't asked to pay any fee but when they use the software for recognition purposes the image they provide is stored in the database and used for future training
6.	Scalability of the Solution	<ul style="list-style-type: none"> ● This project is focused on recognizing a limited number of species of each category. ● In future, this project can be extended to recognise many other species with the help of a carefully crafted dataset. ● This project can be extended to provide more detailed information about each instance of a living being like places where they are commonly found, eating habits, etc.