

Project Design Phase-I

Proposed Solution

Date	26 September 2022
Team ID	PNT2022TMID18406
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 proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>To build an efficient AI based image Recognition tool which effectively to curb out the following constraints:</p> <ul style="list-style-type: none">• Helps Naturalists and NonNaturalists users or the common people who go for hikes , canoe trips , excursions to explore the different species of flora and fauna found in that terrain• To capture the flora and fauna using the AI tool• To provide the information about the flora and fauna species
2.	Idea / Solution description	<p>This system is built by using the Image/object recognition and classification using (CNN) convolutional neural network. By using this system, we can capture the image of any animals and plants and can obtain the information about the flora and fauna at any time</p> <ul style="list-style-type: none">• Show alert messages for plants/ animals using different colours and in which way they are highlighted• Display rarities of the species• Description about the species

3.	Novelty / Uniqueness	<p>This AI powered chatbot gives a 24*7 efficient automated so that the service can be used anywhere and anytime . This system carries out the visualisation of the interpreted results. It also provides various information regarding the respective flora and fauna.</p> <ul style="list-style-type: none"> • Complete description about the characteristics of the species and Alert the users if the species is dangerous or not • Giving the medicinal values of plants and its description • Displaying the names in 7 taxonomical levels of each flora and fauna • Alerting the user based on rarity of the species found
4.	Social Impact / Customer Satisfaction	<p>The feasibility of implementing this idea is moderate neither easy nor tough because the system needs to satisfy the basic requirements of the customer as well as it should act as a bridge towards achieving high accuracy on predicting and analysing the image taken as input and to deliver the output with respective to the input image.</p> <ul style="list-style-type: none"> • Identifying the flora and fauna in our locality / environment helps in improving and understanding biodiversity and the importance of conserving and preserving them for our future generations • Establishment of more national parks and wildlife sanctuaries
5.	Business Model (Revenue Model)	<p>By using this system, the users can predict and analyse the picture of the animals or plants. In which it results to the visualizing the description of the flora or fauna which taken as input.</p> <ul style="list-style-type: none"> • Partnership with many naturalists, universities and scientists around the world
6.	Scalability of the Solution	<p>By implementing this system, the people can efficiently and effectively to gain knowledge about the nature they want and they wish to use at anytime. This system can also be integrated with the future technologies</p>

		<ul style="list-style-type: none">• As the application grows more popular, new and innovative features can be added now and then• Subscriptions can be classified according to the type of users including the Normal plan, Educational plan, and Business plan
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