PROPOSED SOLUTION

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| Team ID | PNT2022TMID49968 |
| Project Title | Digital Naturalist - AI Enabled tool for Biodiversity Researchers |

**Proposed Solution Template:**

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| S.No. | Parameters | Description |
| 1. | Problem  Statement (Problem to be  solved) | One of the most problem is faced by the individual are biodiversity, or the variety of all living things on our planet, has been declining at an alarming rate in recent years, mainly due to human activities, such as land use changes, pollution and climate changes. |
| 2. | Idea / Solution description | This app is an image sharing and retrieval application for the identification of plants, available on Android . Contrary to previous content-based identification applications can work with several parts of the plant including flowers, leaves, fruits and bark. Biodiversity is the life support system. The project aims to create an web application for the hikers to identify rare species of birds , flowers , animals and more . The proposed system in biodiversity research using the computer vision in Artificial Intelligence. helps to detect environment, particular species and locations. Data collected so far makesit one of the largest mobile plant identification tools . |
| 3. | Problem root cause | When venturing into the woods , field naturalist usually rely on common approaches like always carring a guidebookaround everywhere or seeking help from experienced ornithologist .  Lack of proper documentation  Lack of training set |
| 4. | Social impact/ Customer  satisfaction | Individual are facing the network issues.The increasing availability of digital images, coupled with artificial intelligence (AI) techniques for image classification, presents an exciting opportunity for biodiversity researchers to create new datasets of species observations. We found more over geolocated images tagged with the keyword ‘‘flower’’ across an urban and rural location in the UK and classified these using AI, reviewing these identifications and assessing the representativeness of images. |
| 5. | Customer Segments | Individual who are interested in biodiversity researchers. Detecting and classifying objects in a single frame which consists of several objects in a cumbersome task. With the advancement of computer vision techniques, the rate of accuracy has increased significantly. This paper aims to implement the state of the art custom algorithm for detection and classification of objects in a single frame with the goal of attaining high accuracy with a real time performance. The proposed system utilizes architecture coupled with MobileNet to achieve maximum accuracy. The system will be fast enough to detect and recognize multiple objects even at 30 FP |
| 6. | Available Solutions | Developing a solution, which can able to identify the correct species , location and environment for the given image would be beneficial for many individual as well as ornithologist. Merits : interaction between the individual & biodiversity researchers is more efficient & effective . Demerits : If network is not available then it doesn't give a result . |