


Ideation Phase

Brainstorm & Idea Prioritization

Date	19 September 2022
Team ID	PNT2022TMID30121
Project Name	Project - A Gesture Based Tool For Sterile Browsing Of Radiology images
Maximum Marks	4 Marks

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 🕒 10 minutes to prepare
- 🕒 1 hour to collaborate
- 👤 2-8 people recommended

➔

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

A Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

C Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.

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Define your problem statement

Humans are able to recognize body and sign language easily. This is possible due to the combination of vision and synaptic interactions that were formed along brain development. In order to replicate this skill in computers, some problems need to be solved: how to separate objects of interest in images and which image capture technology and classification technique are more appropriate, among others.


PROBLEM


How might we [your problem statement]?





Key rules of brainstorming


To run an smooth and productive session


 Stay in topic.

 Encourage wild ideas.

 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

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Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

Chandiramohan R

Gesture captured in the video frame is compared with the Pre-trained model	Open Source Computer Vision Library
Perform geometric transformations of images like rotation, scaling, translation	Pre-process the data using different data preprocessing techniques

Manoj R

Concepts and techniques of Convolutional Neural Network (CNN)	Vision-based gesture capture system interprets user's gestures in real-time
Broad understanding of image data	Performance evaluation included gesture recognition accuracy.

Arun GR

Build a web application using Flask framework	3D dynamic gesture recognition approach explicitly targeted to keep motion data
Static folder will contain JS and CSS files	Plugin features gestures for panning, zooming, windowing and browsing of image datasets.

Kaviraja AS

Software that translates the data delivered by the camera	Touch-free image control system based on the Leap Motion and Microsoft Kinect v2 controllers
Convolutional Neural Networking	Prediction with operation applied on image

Goghul JP

Metrics used to evaluate the performance of model	commands to review images
Region Of Interest (ROI)	Keras deep learning neural network library provides the capability to fit models

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Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

IDENTIFICATION

Open Source Computer Vision Library		Concepts and techniques of convolutional Neural Network (CNN)
	Build a web application using Flask Framework	
Performing different transformations to the input image.		Performance evaluation included gesture recognition accuracy

MODULES

Collect or Create the dataset		Pre-process the data using different data preprocessing techniques
	To analyze the visual imagery	
Keras deep learning neural network library provides the capability to fit models		Vision-based gesture capture system interprets user's gestures in real-time

Step-3: Idea Prioritization

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Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

