

Let's Play

**Interdisciplinary Project:
Let's play: AI at school**



Work Flow

Explaining the nature

- What is AI, and why?
- Introduction to snap

Arousing interest by engagement

- Explaining the Artificial nature
- The known drawback
- introduction to jetson

Brainstorm with a real world example

- Machine learning practical example using jetson
- concluding discussions about their perceiving

Explaining the nature

➤ **What is Artificial intelligence?**

a graphical explanation with some short video clips and some real world examples widely seen. (Alexa, Siri)

➤ **Snap introduction and integration?**

Draw/ import some sketches on snap and try to figure out what does the machine guess (**The importance of confidence can be explained here**) using google net model. Let children initially guess what all does the model can predict. The task is important to make children familiar with the **limit of data set to some objects**

Bridging the gap

➤ **Introduction to Jetson and its capabilities**

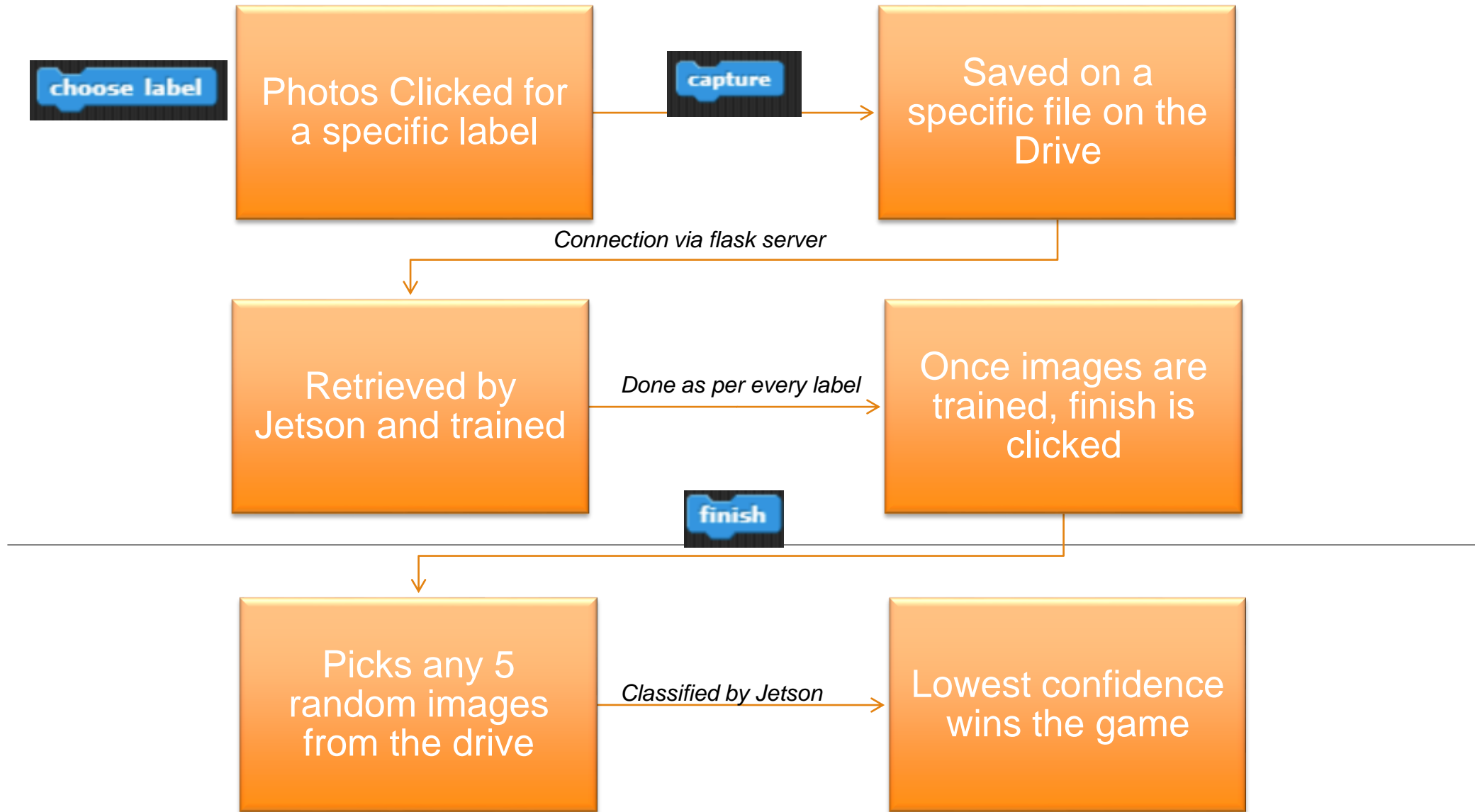
A quick basic introduction to the brain which is learning the objects blended with a small introduction of the models. A small 5 question quiz can be put up here

Machine learning or machine guessing !!!

Arousing interest by engagements

➤ Let students train a model (assuming 25 students)

- Divide students in a group of 5 and choose 5 objects.
(lets say: leaves, flowers, plants, trees, animals).
- Assign 4 labels to each group. Each group should click 20 photos of each label.
(for instance: group 1 get 4 labels: leaves, flowers, trees, animals. Group 1 together should click 80 pictures in total of the 4 labels defined).
- Finally, ask every student of the group to try to click a unique as possible photo of the 5th label (unassigned label)
(Now all the kids of group one should try to click a unique photo of plants)
- Train the model on 80 images and let the model predict any 5 images. The group which produces the images which remains undetected or get the lowest sum of confidence wins for clicking the most unique photos



Brainstorm: Jetson serving the nature

- **Machine learning as a nature savior**

 - a small introduction to progress so far and challenges faced

- **Jetson as a trash collector and separator**

 - A snap code with highly abstract blocks with all the necessary steps for children to understand the basic principle of the work done and Artificial intelligence used.

- **Concluding discussion session and their perceiving**

 - Explaining how machine learning will skyrocket the technology development till 22nd Century and there is no limits to learn and dive in. It will be worth to coin the terms like : Transfer learning and neural networks to gather complete interest.

Technology



Python



Snap



Artificial
Intelligence



Data collection



THANK YOU!

~ Pranay
~ Shashank
~ Vipul