Edge In-Lab part 2

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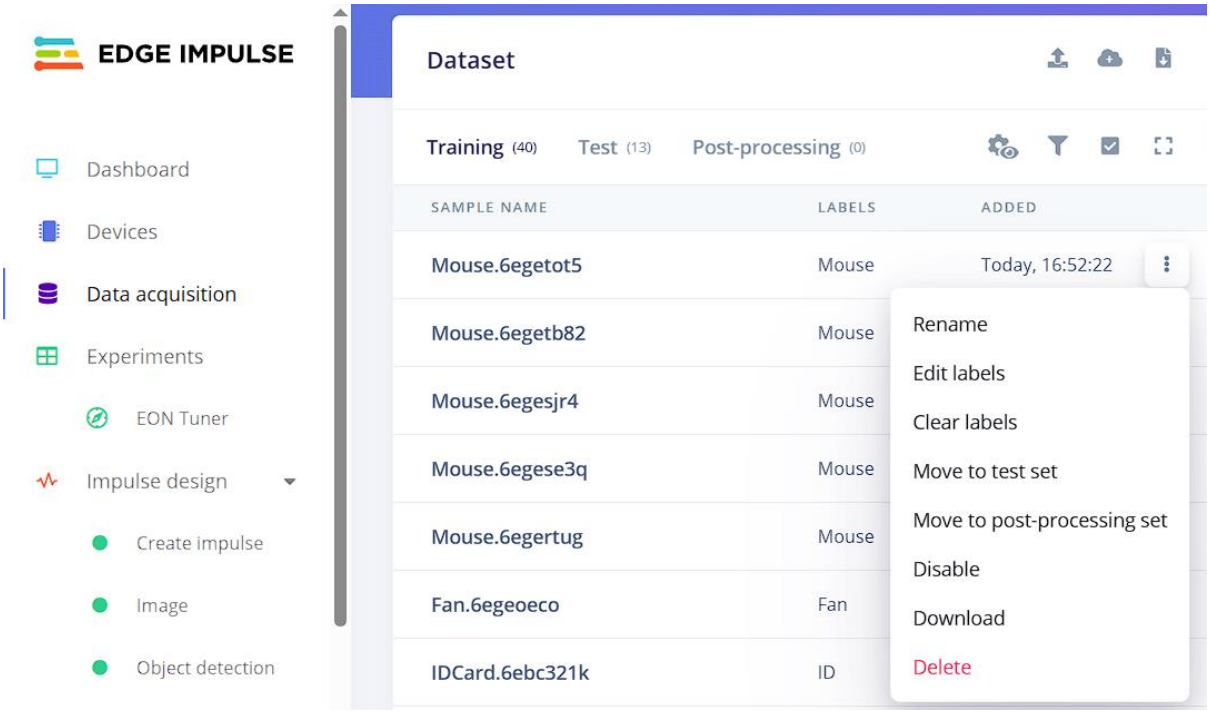
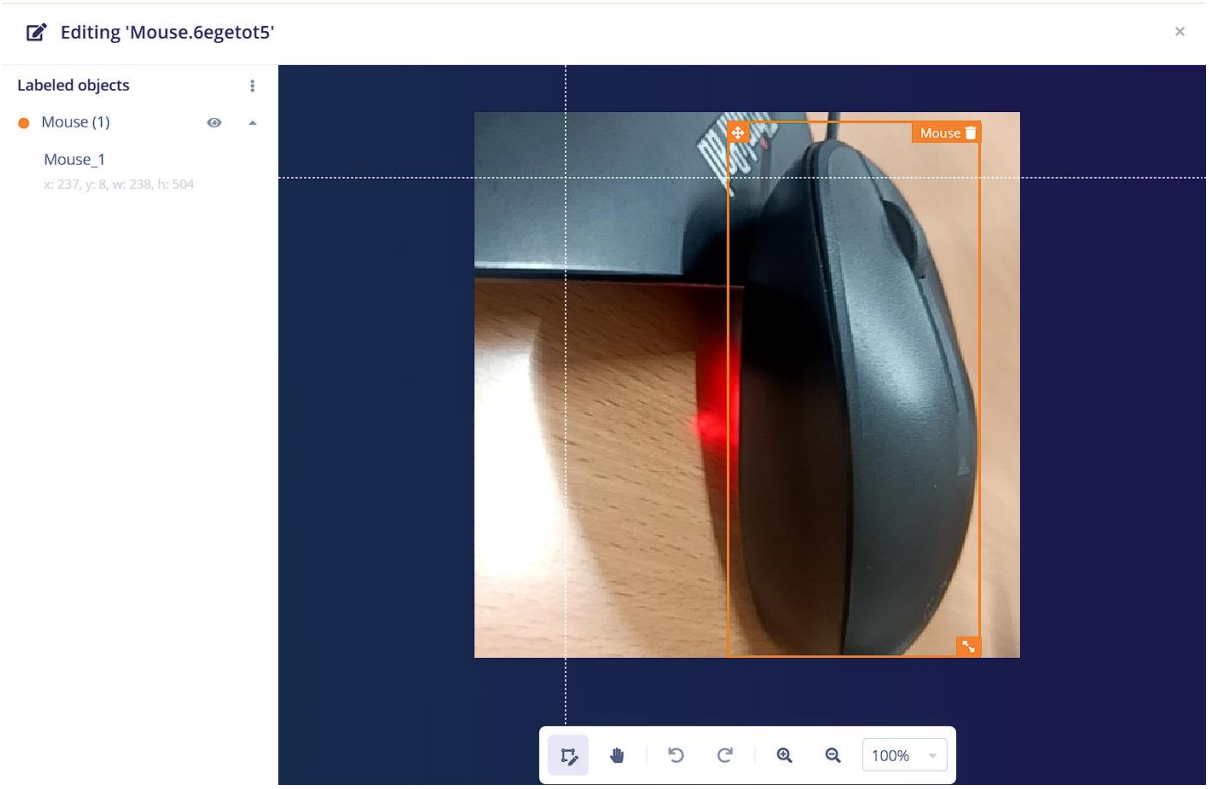
After the data has been acquired, it must be labelled. This can be done by navigating to the 3 dots near the images and selecting it and clicking on edit labels.



A window will pop up of the image. You can use the “plus” shaped crosser to box out the object to be labelled. Once boxed a pop up window will show up allowing you to change/make the label. This will help to better inform the model of what it is looking for.

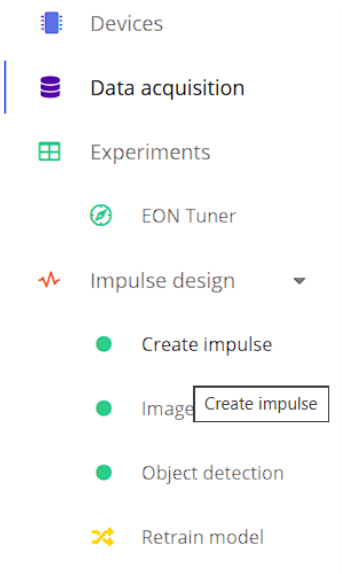


Repeat this process with all the images in the dataset

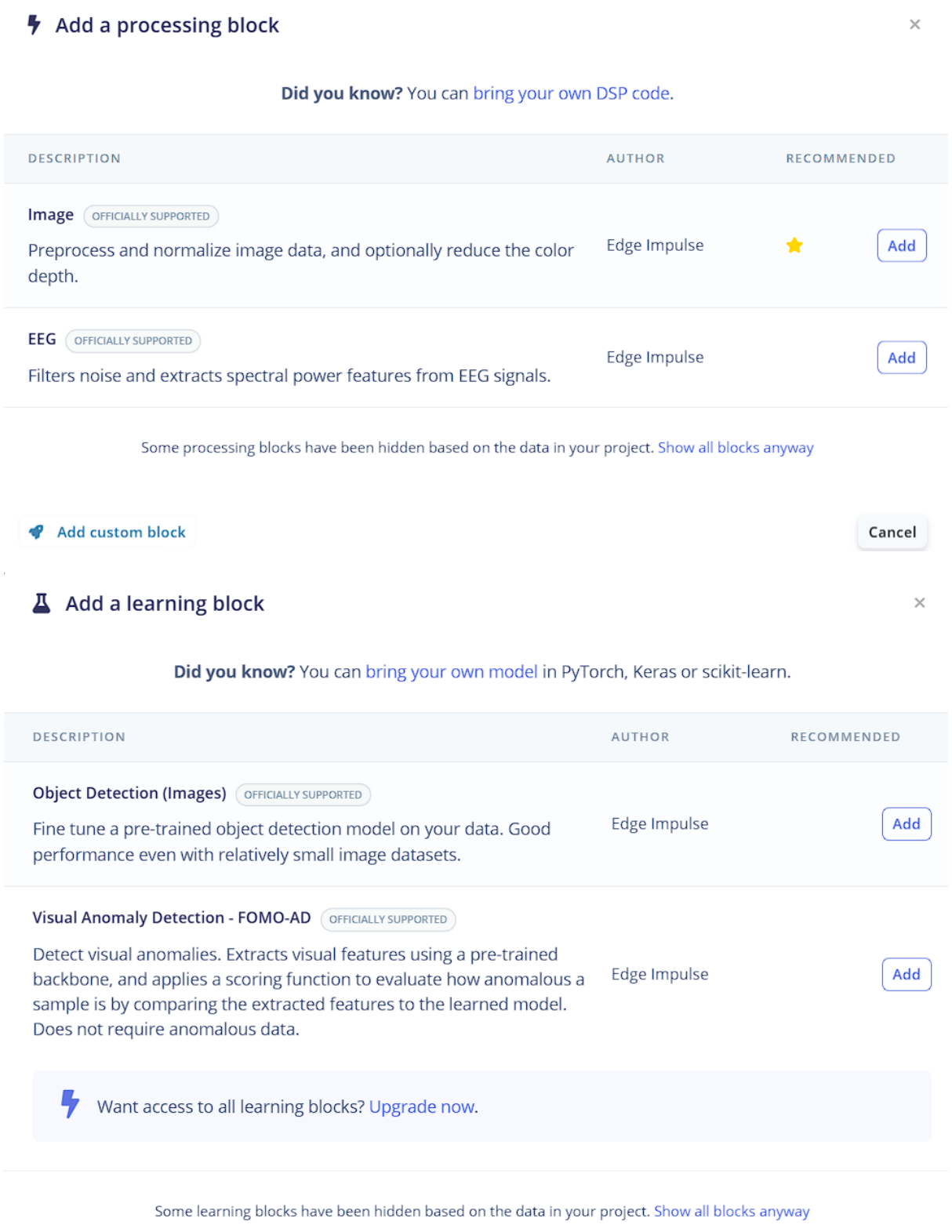
You will know if the label has been placed by looking at the “label” column in the dataset view

Ensure that the dataset is split into training and testing. The provided infographics on top of the dataset should be able to guide you into better managing this split

Once the data has been optimally split, navigate to the impulse tab and select on create an impulse

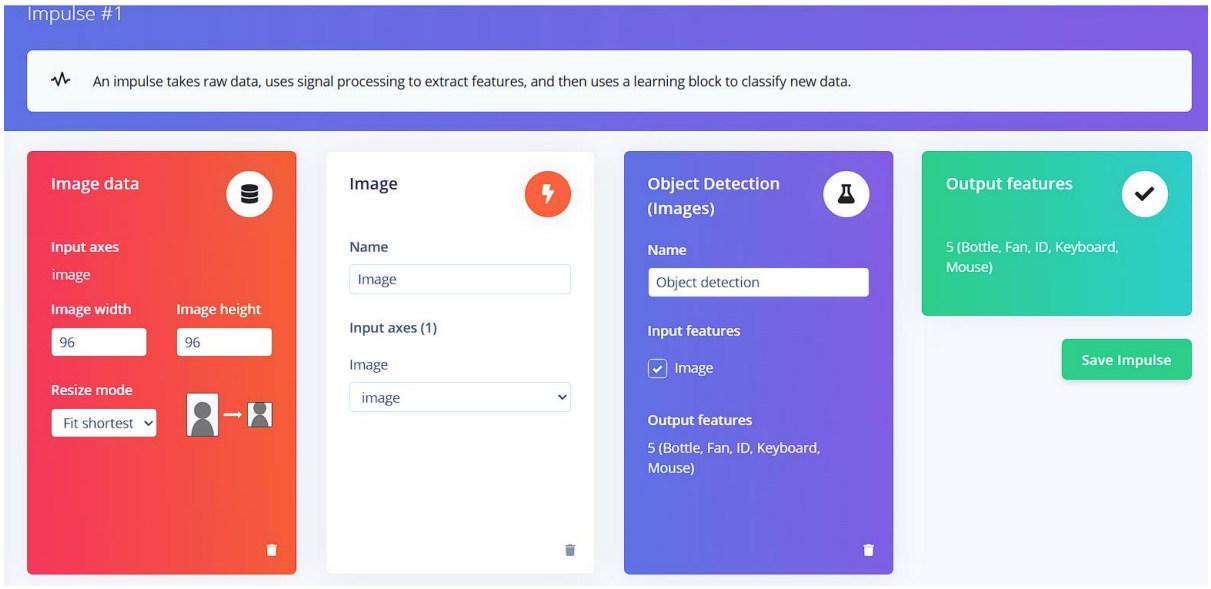


Click the “Add a processing block” button to select a format the model can process. Once that is done, click the “Add a learning block” button to select a model

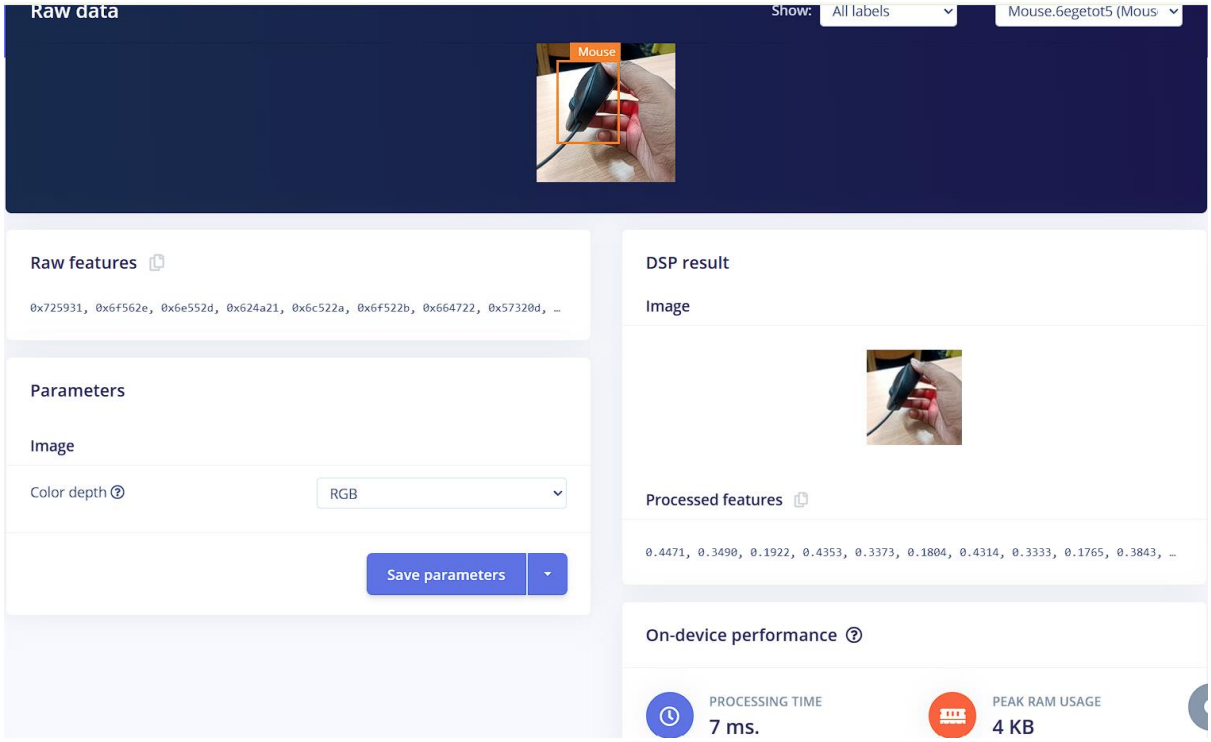


Once that is done, click on “the Save impulse” button to save the setup

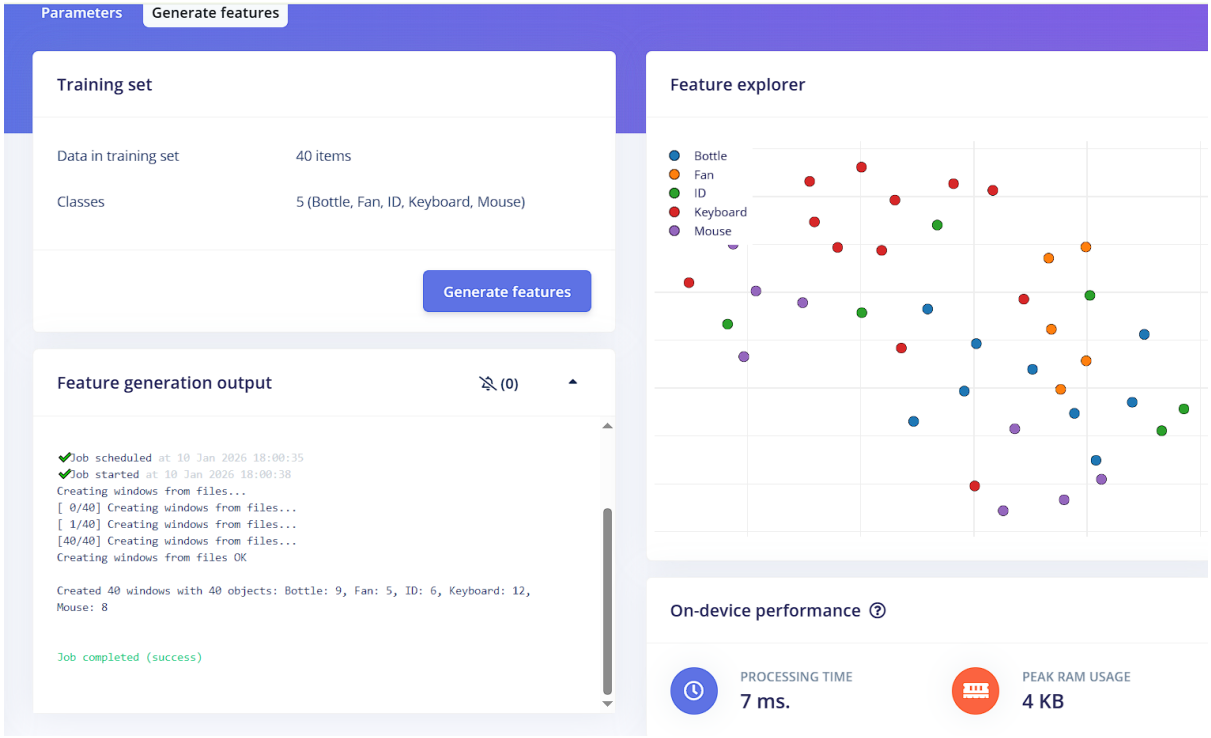
The final view should look like this



Navigate to the Image tab(below the impulse) and then save the parameters for the raw data. The parameters can be to process the image in RGB or in grayscale. Click on “save parameters” efore you proceed any further.

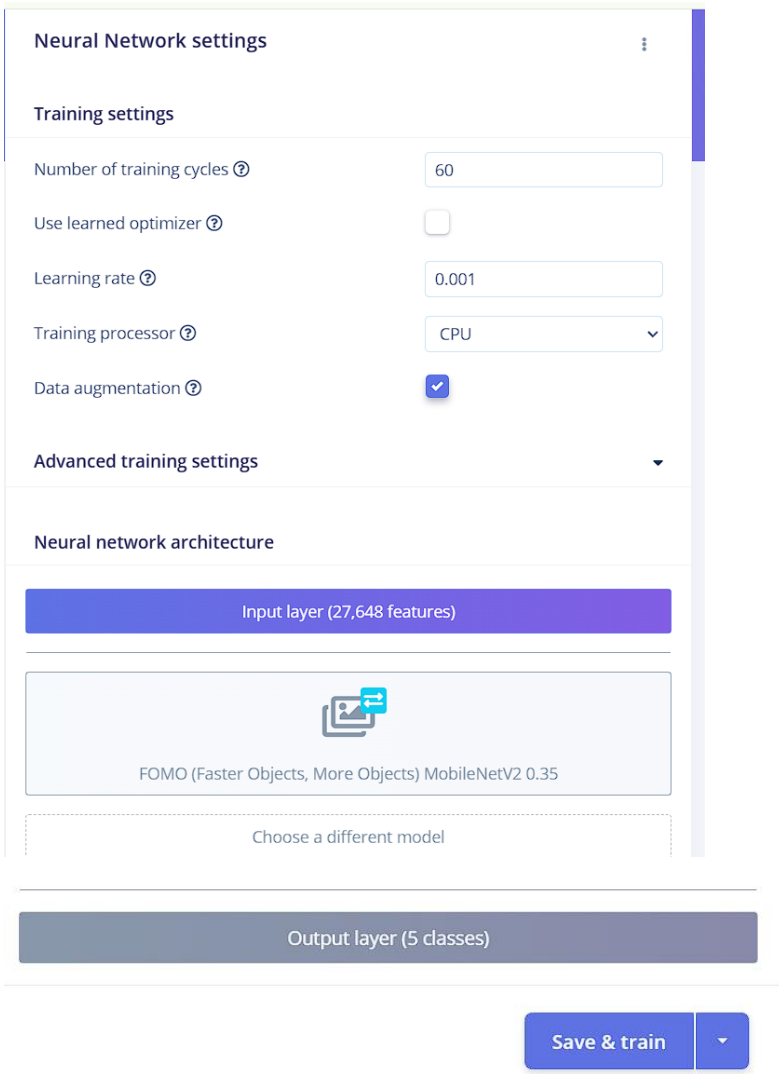


The tab will automatically navigate to the generate features tab. Once there you must click on generate features to load the features of your dataset. After it is done it should look a little something like this

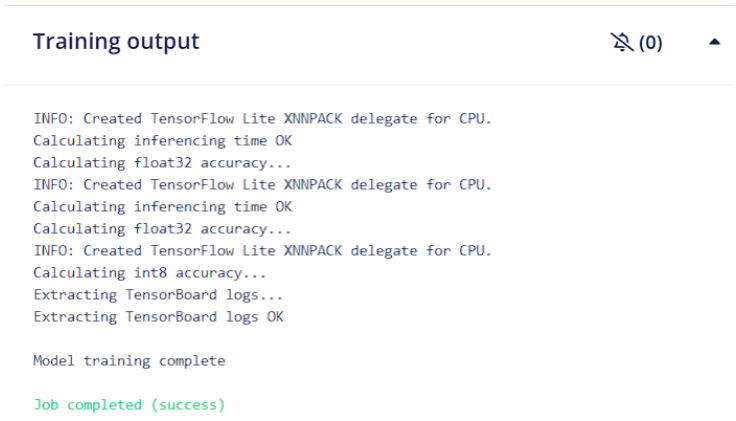


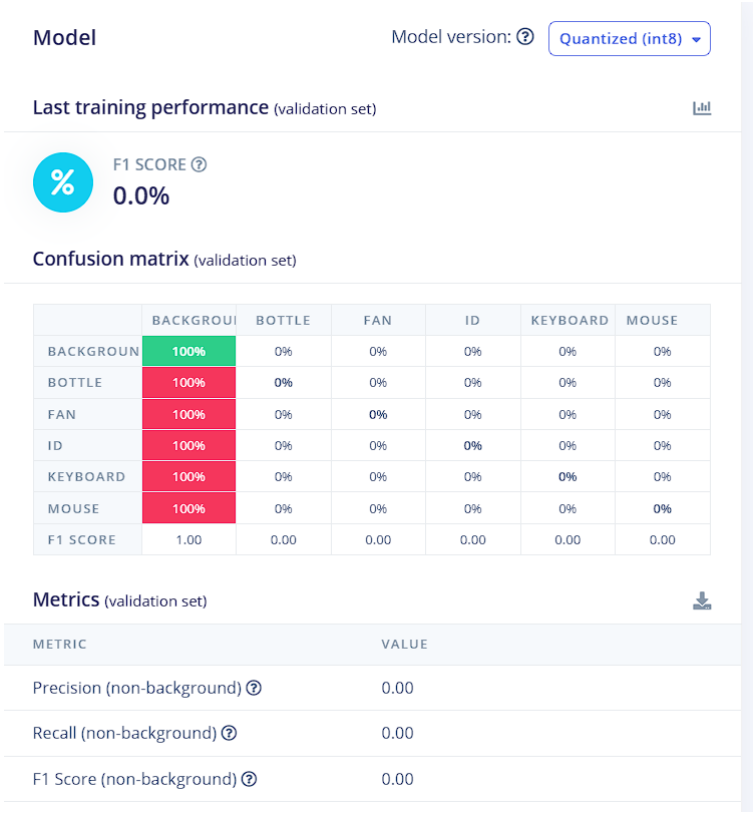
We can then navigate to the final tab, the “Object Detection” tab to run the model on our dataset.

There are various settings that can be found in the neural networks column that will allow you, the end user, to fine tune the model to your liking. Once all the nuances are dialled in(in this case we are just running it plain with no added changes), click on the “Save and train” button by navigating to the bottom of the page.



After a few minutes the Model should spit out the outputs, which can be found on the right-hand side of the page(under training outputs). Take note of the results and make corrections to the model or dataset if need be.





In our case the model gave us an F1 score of 0, which means that we will have to tune our dataset and model again to get our desired outputs.