Experiment Title

PREDICTING INSURANCE FRAUD USING IMAGES

Student Name: Akshita Kanther **UID: 180161**

Branch: IIIrd yr CSE-BDA **Section/Group: C**

Semester: 6th

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Subject Name: Predictive Modelling Analytics

Subject Code: CS 18.338

I. Aim/Overview of the practical: To Predict the **Insurance fraud** using Images.

II. Task to be done: Discuss How IBM Watson Studio empowers us to scale analysis across your org to speed dev time and simplify collaboration with data scientists, risk analysts, investigators, and other subject matter experts while adhering to strong governance and security posture. In order to respond to new types of fraud, waste and abuse while minimizing false negatives and accelerating response, the platform continuously accommodates real-time data, monitors and detects fraudulent activities and adapts as the patterns change and spot anomalies.

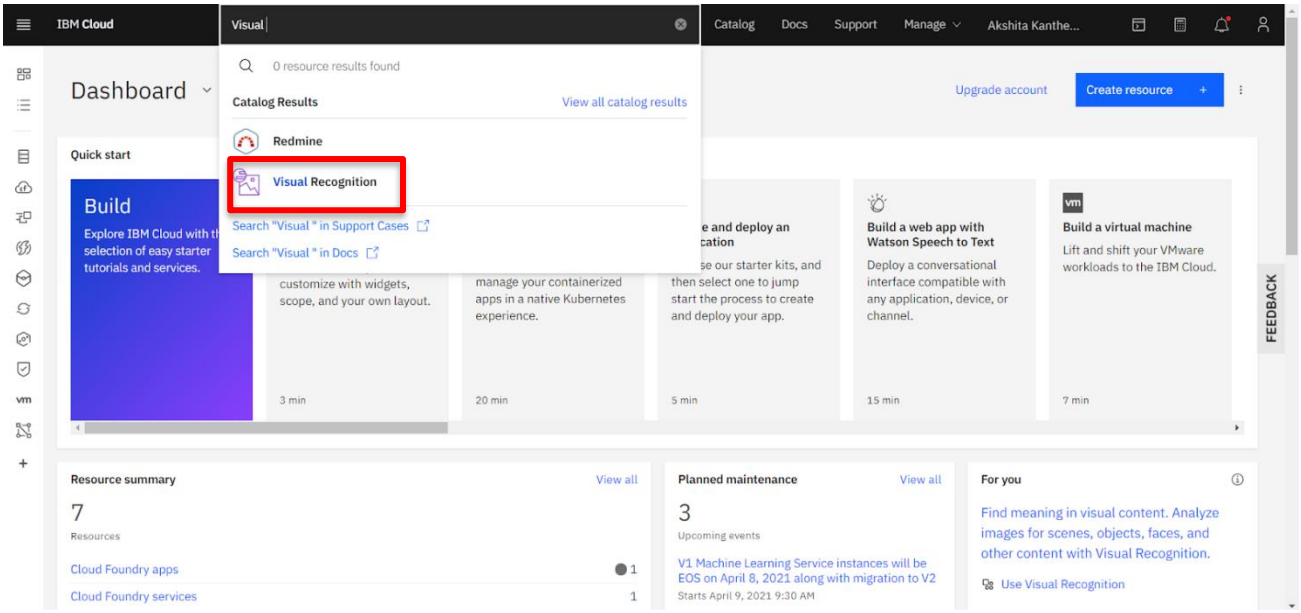
III. Apparatus (For applied/experimental sciences/materials based labs)**:** The following apparatus we need are:

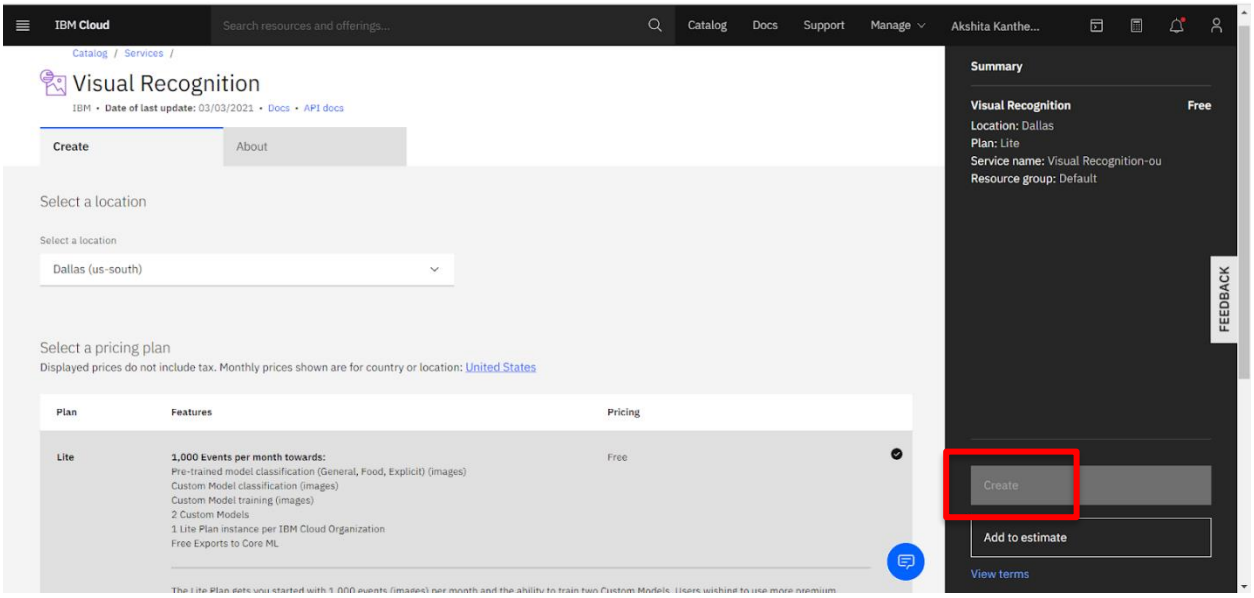
- Internet connectivity
- IBM cloud account
- IBM Visual Recognition service
- IBM Watson Studio
- NIC Data Set

IV. Steps for experiment/practical: The following steps are:

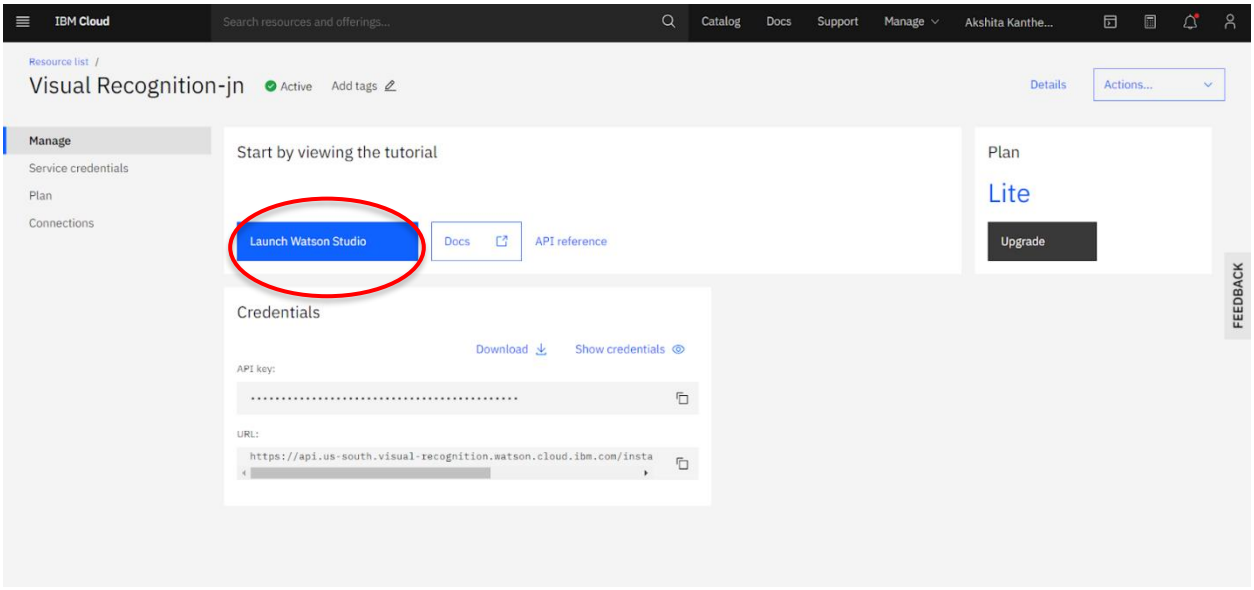
1. Login to your IBM Cloud account.

2. Go to your Visual Recognition Service and start a new project or start recent project which is already created.

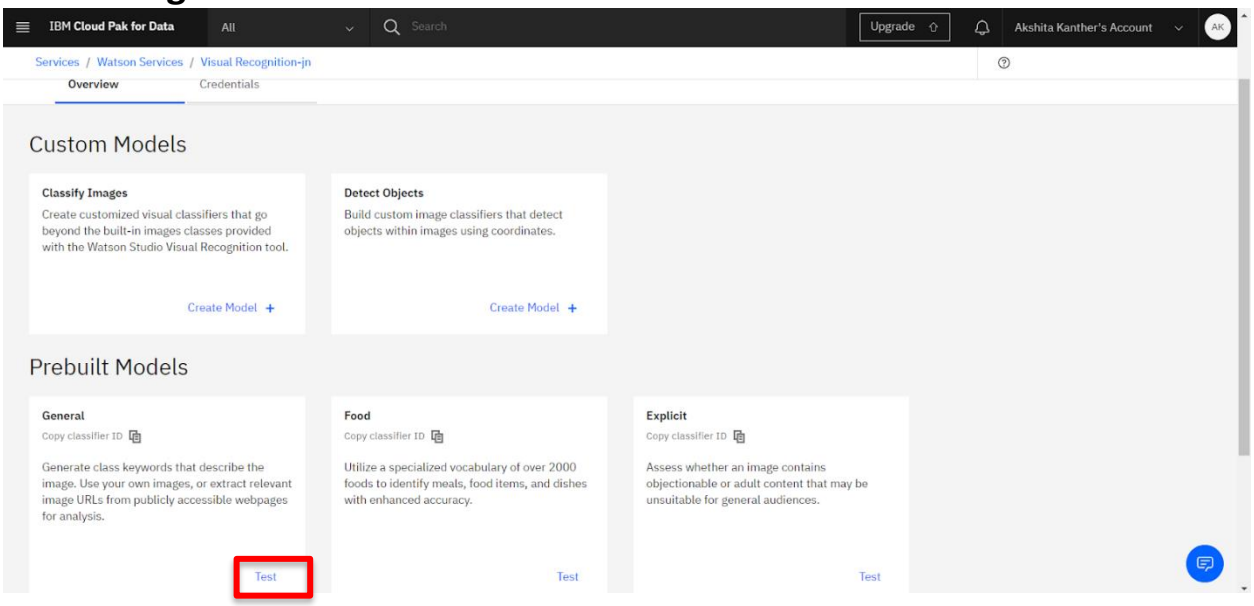




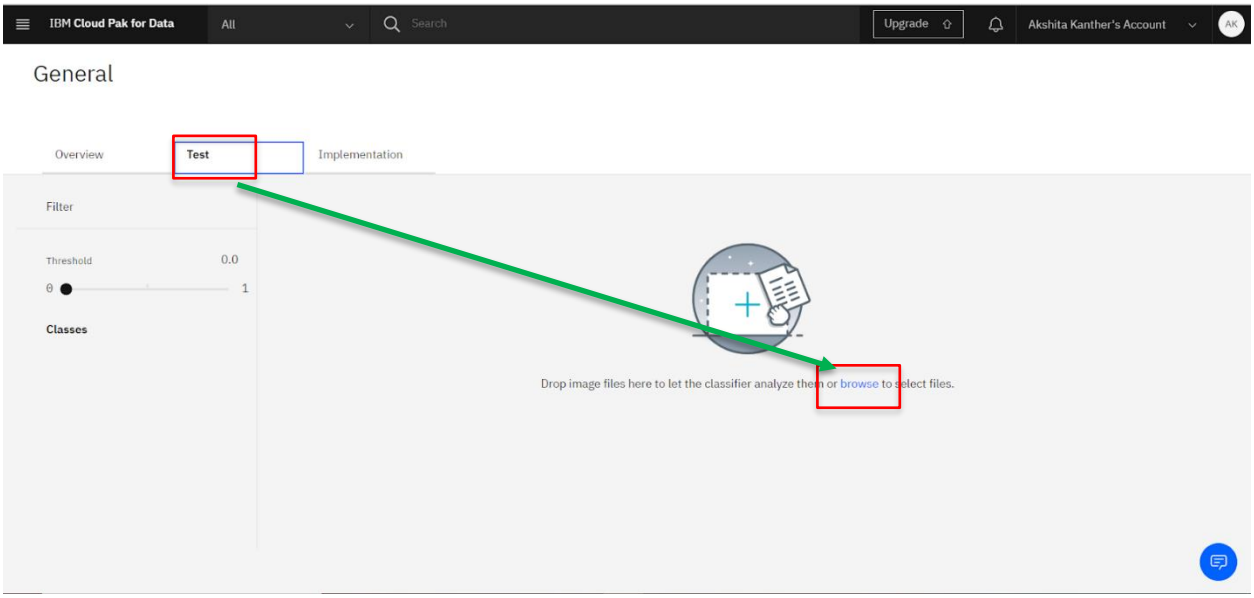
3. Launch the Watson Studio through visual recognition service.



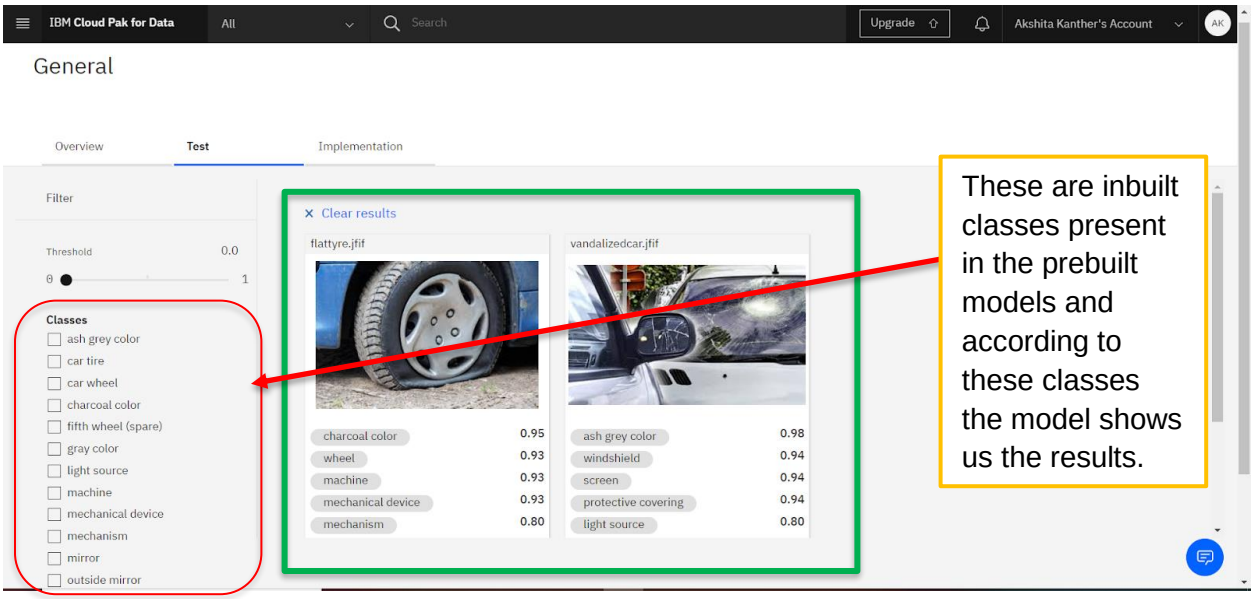
4.1 Through Prebuilt models



- Through prebuilt models we will test the model by uploading the images by going on Browse and select the data or files to upload or data and on the basis of the described classes in that model , then it will analyze the image and provide the classes of that image which are present in that image.

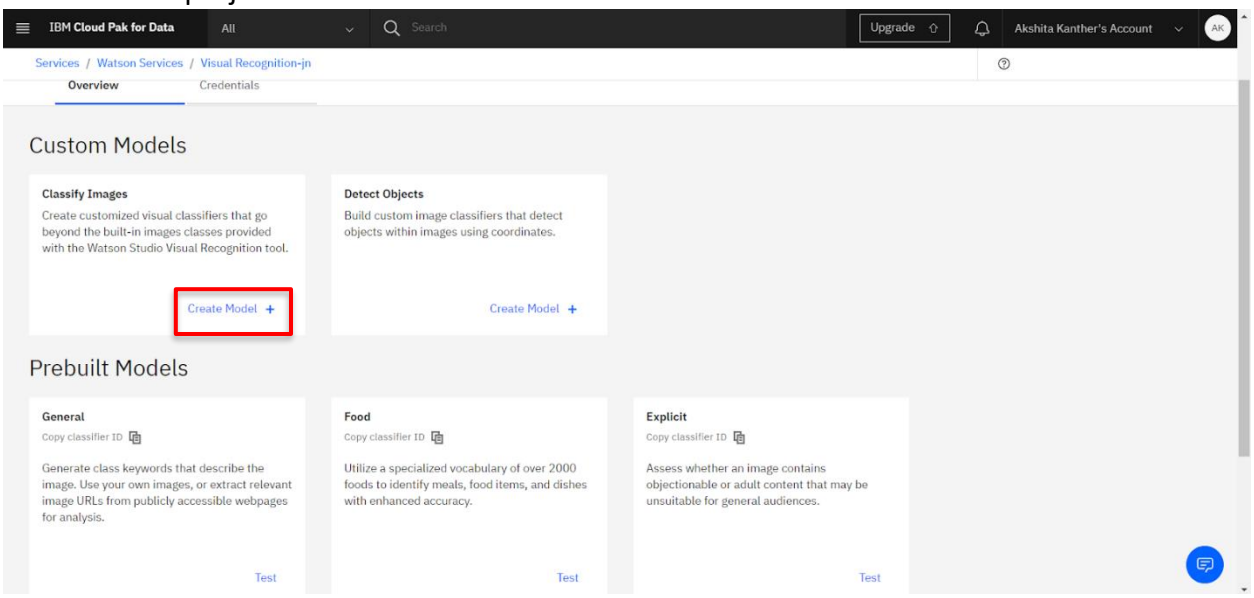


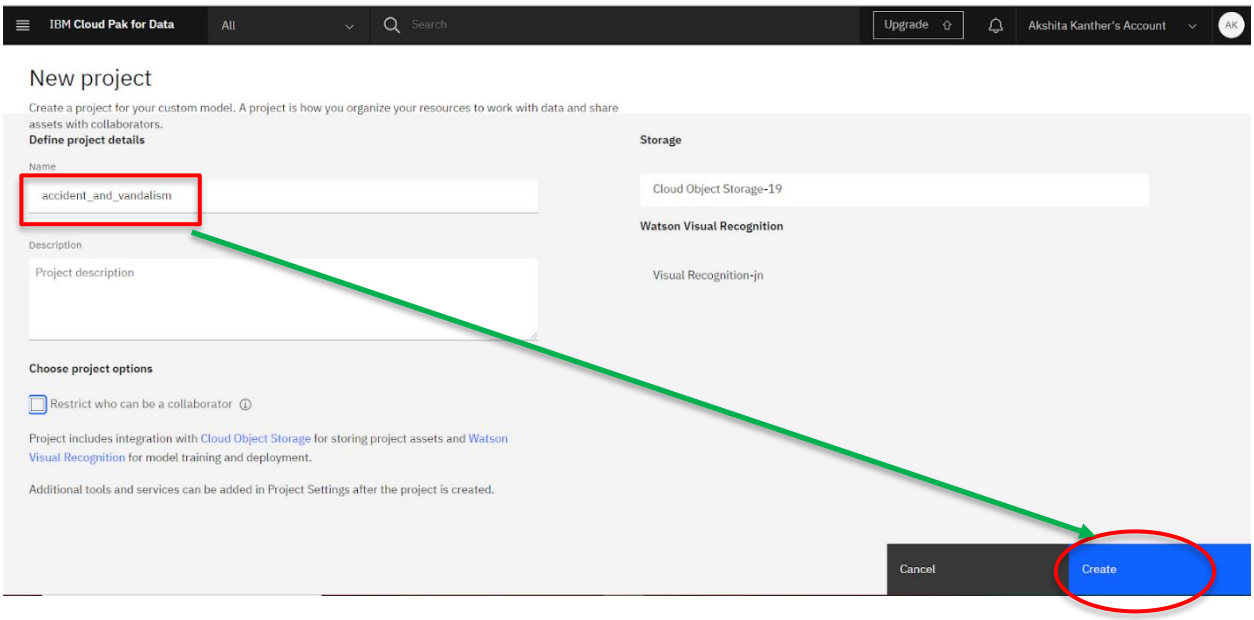
- After Analyzing the image it has shown the classes which are already in-built and also it tells that how much percent it is there in that image and the results are shown.



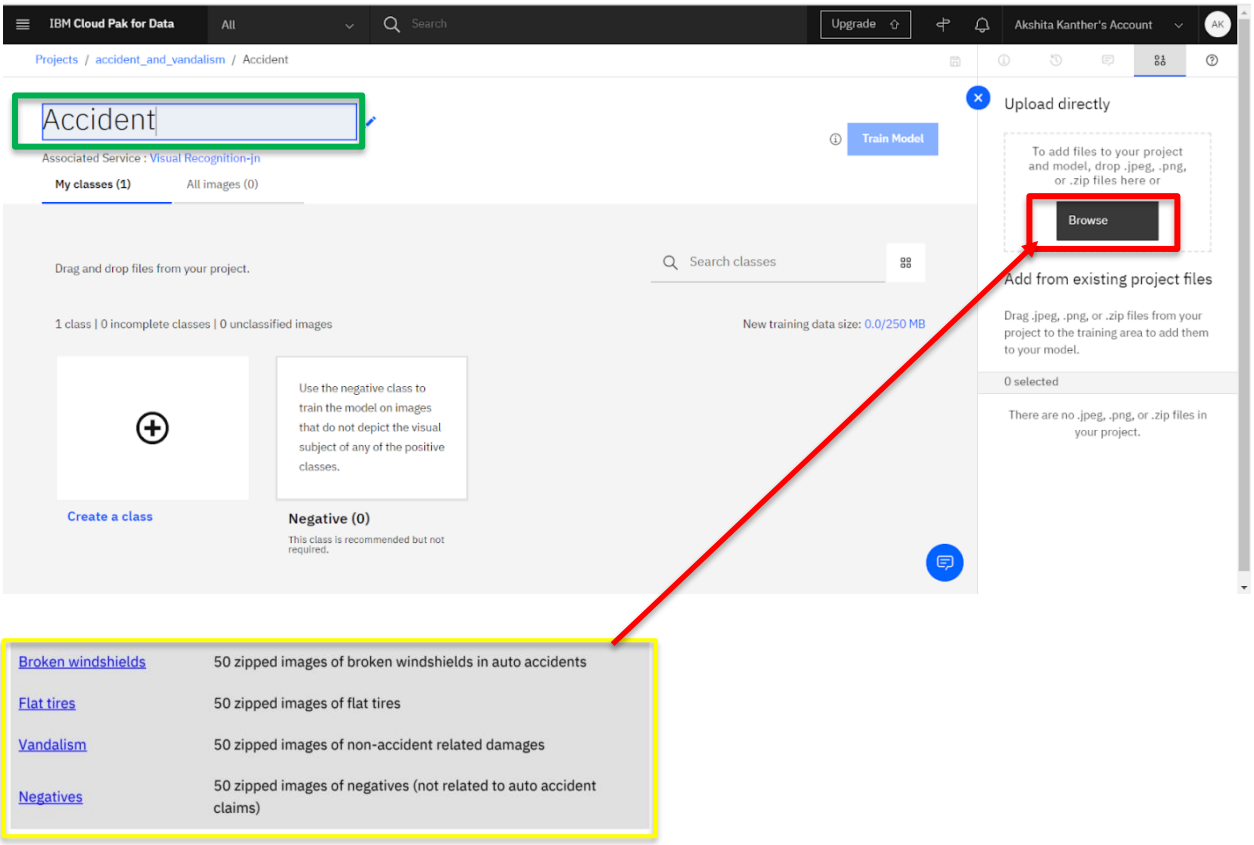
4.2 Through Custom Models:-

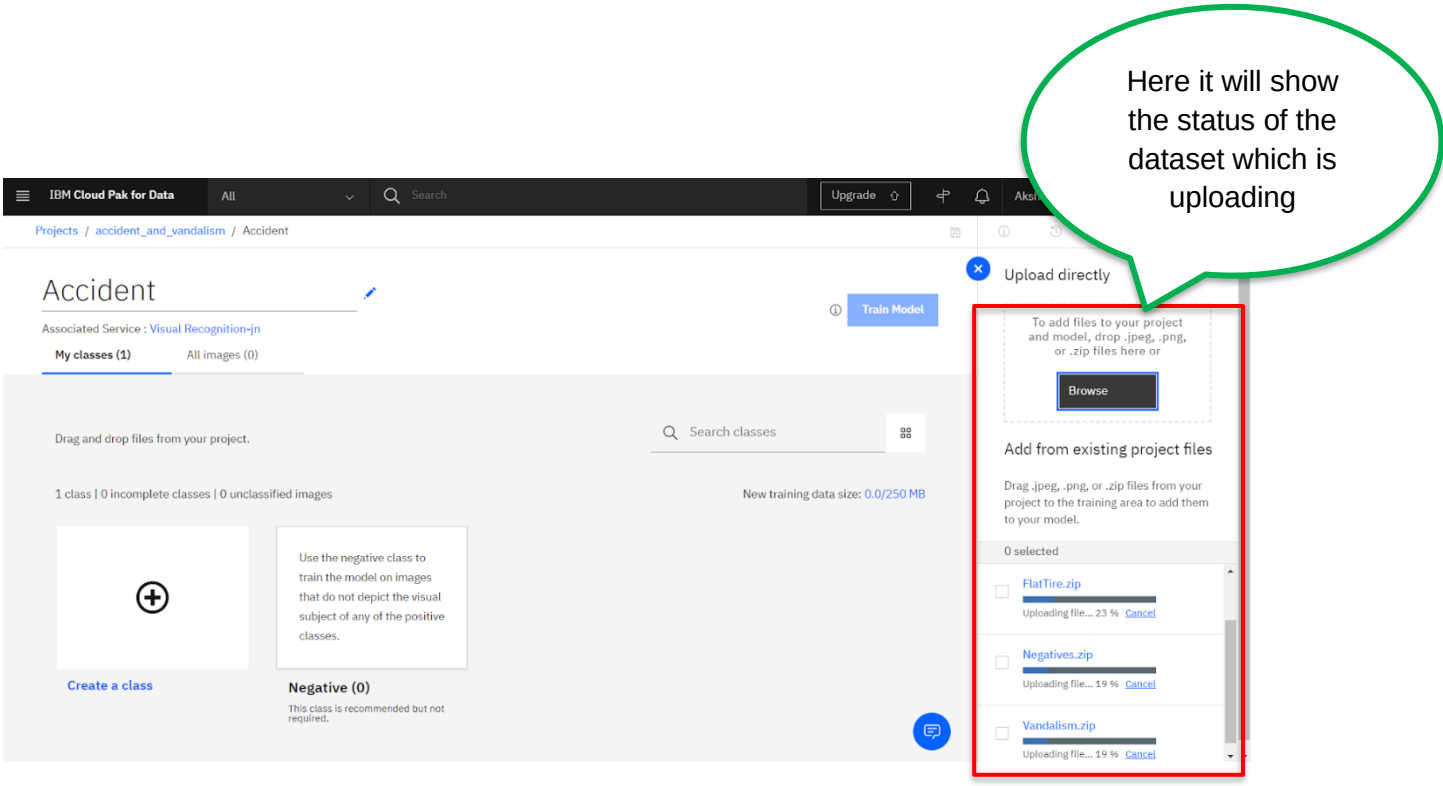
- In this we will click on “create model” in custom models and then there we will create a new project and then name it and click on “Create”.



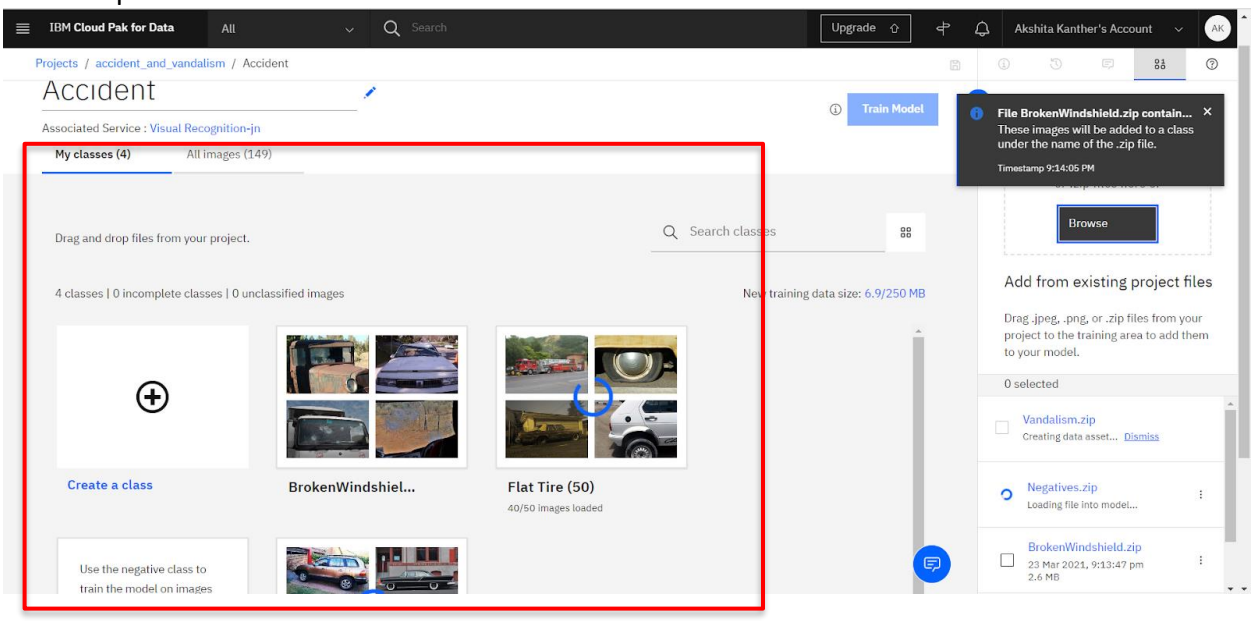


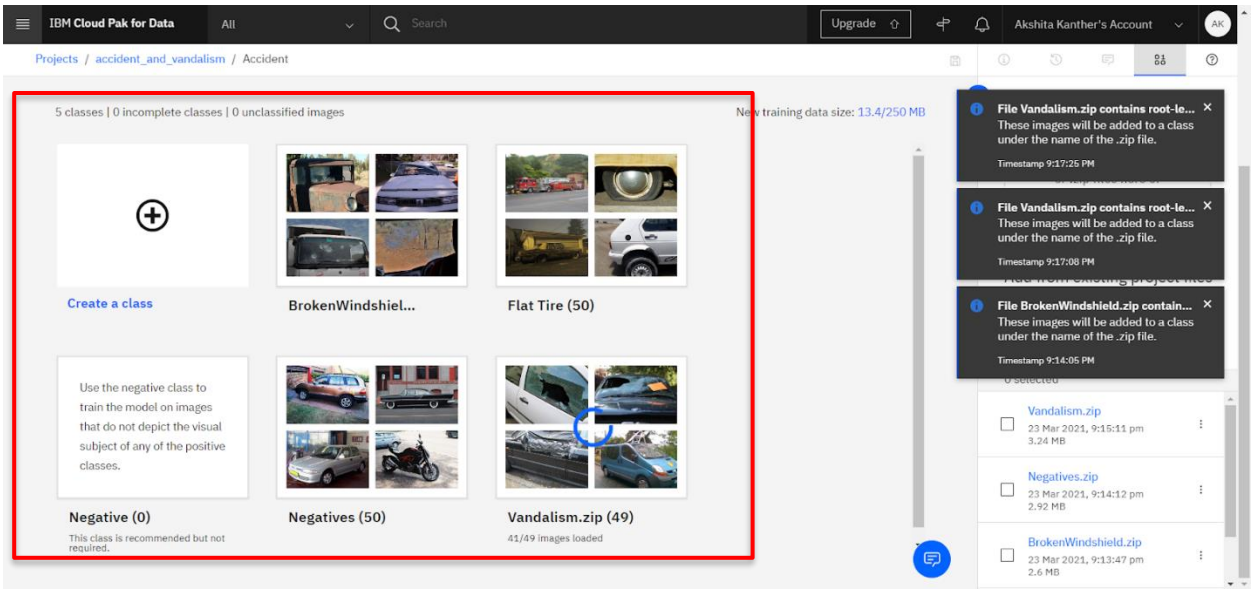
5. After that we will change the name from Default to any name related to that project and then after that we will upload the dataset required for this model by going on to Browse in upload directly section. In that we will upload the dataset which are downloaded first and then we are uploading it as shown below



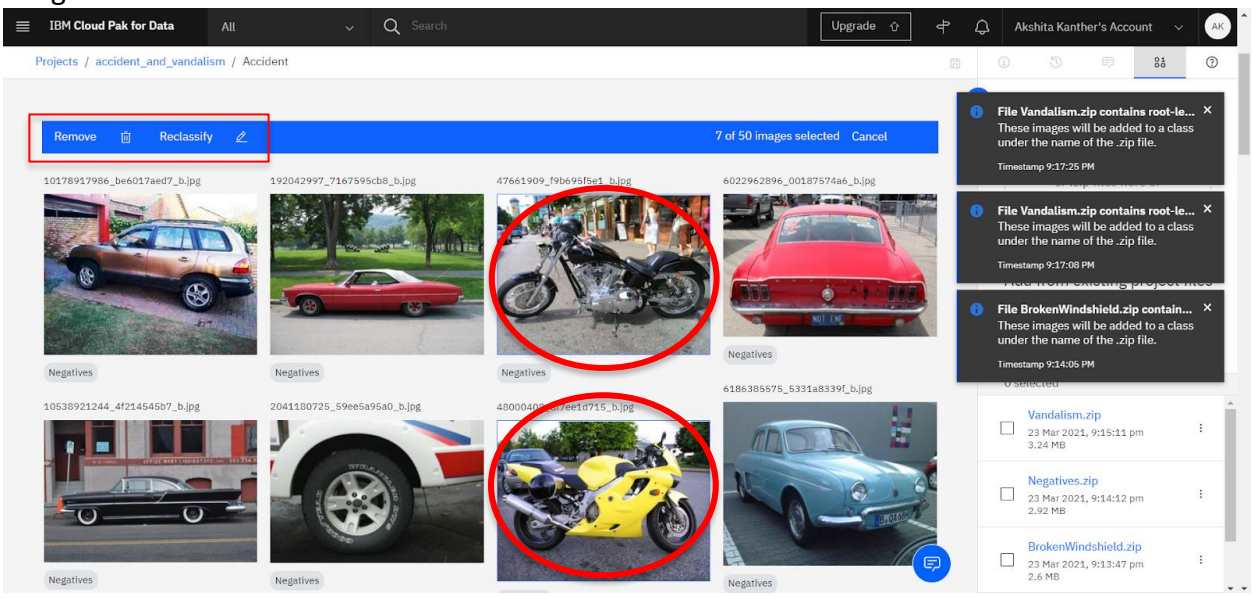


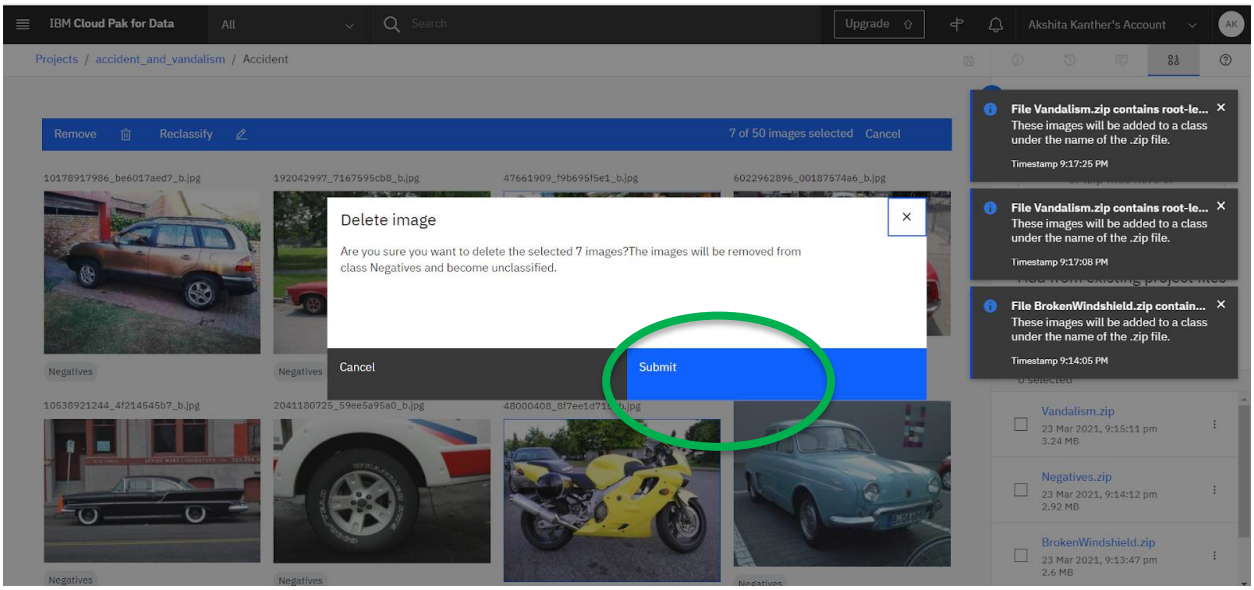
- In this in “My Classes” section it will show the following classes or the dataset uploaded.



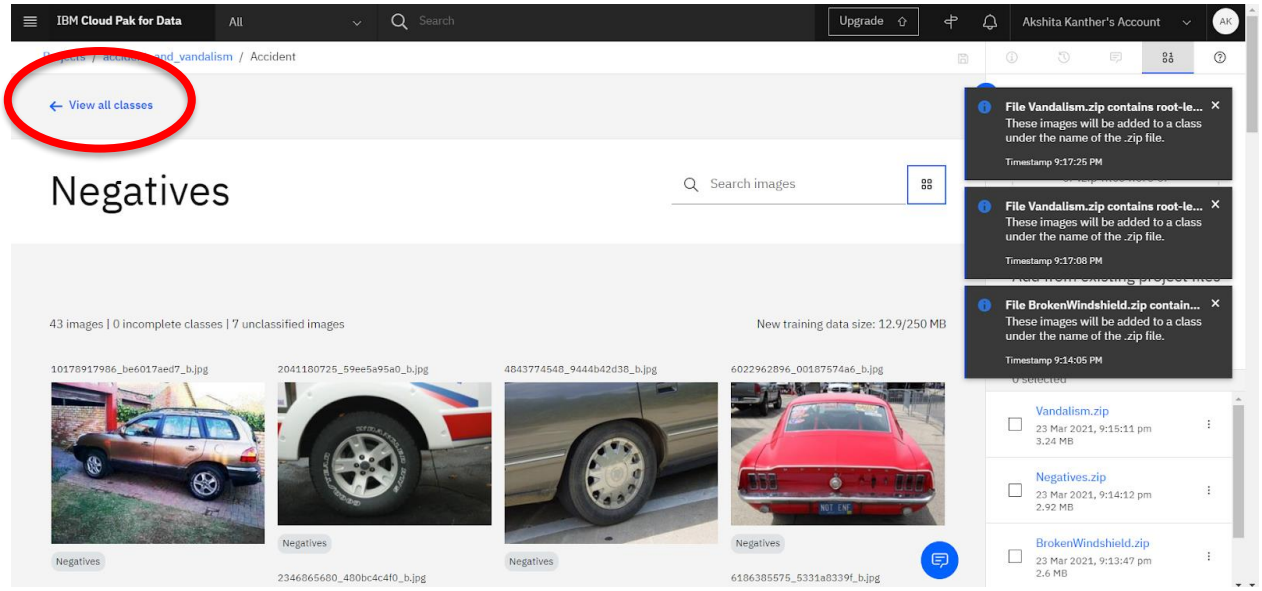


6. Then we will reclassify the images from the classes or remove the images which are not related to that dataset or that class. In negatives class by selecting the images we will remove the images which are not related and then click on submit.
For eg. the red circled image of bike is not related to vandalized cars so we will remove all the images of bikes from this class.

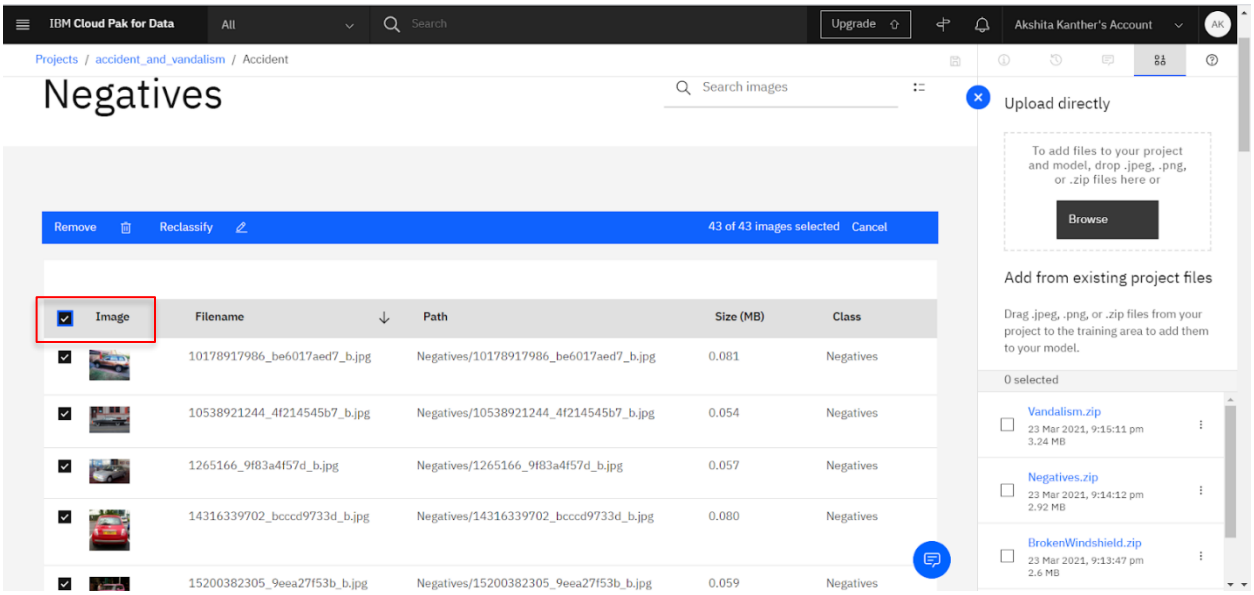


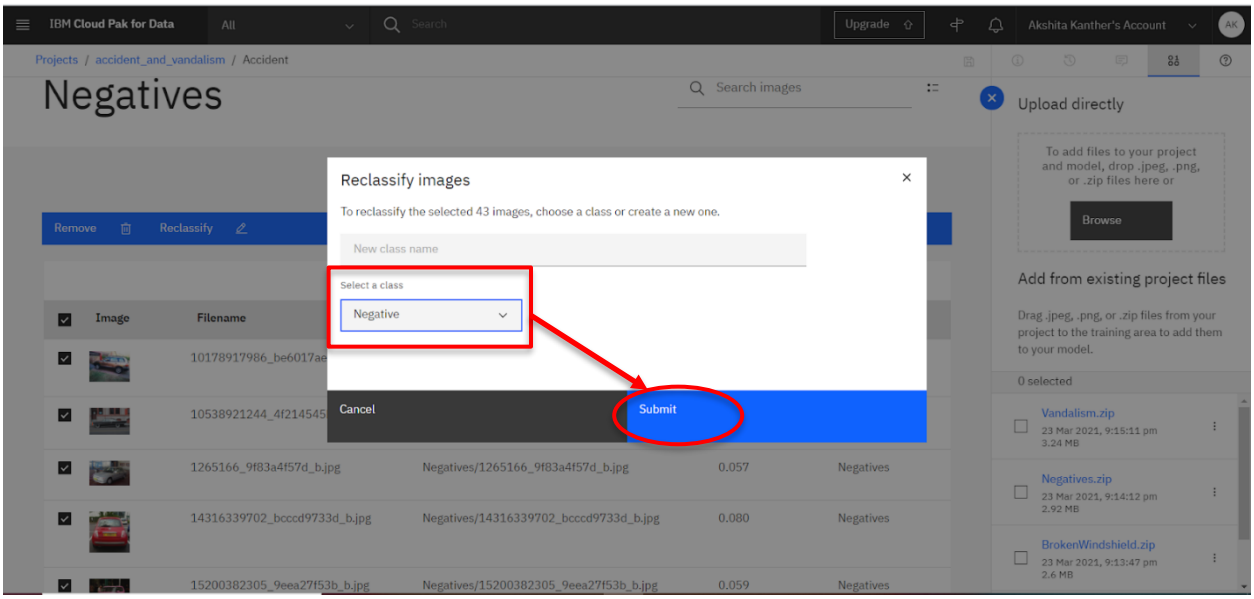


- And then we will check the class negatives that the images are removed are not by clicking on to “View all classes” in that it will show you all the classes and from their we will click on class negatives and then check .

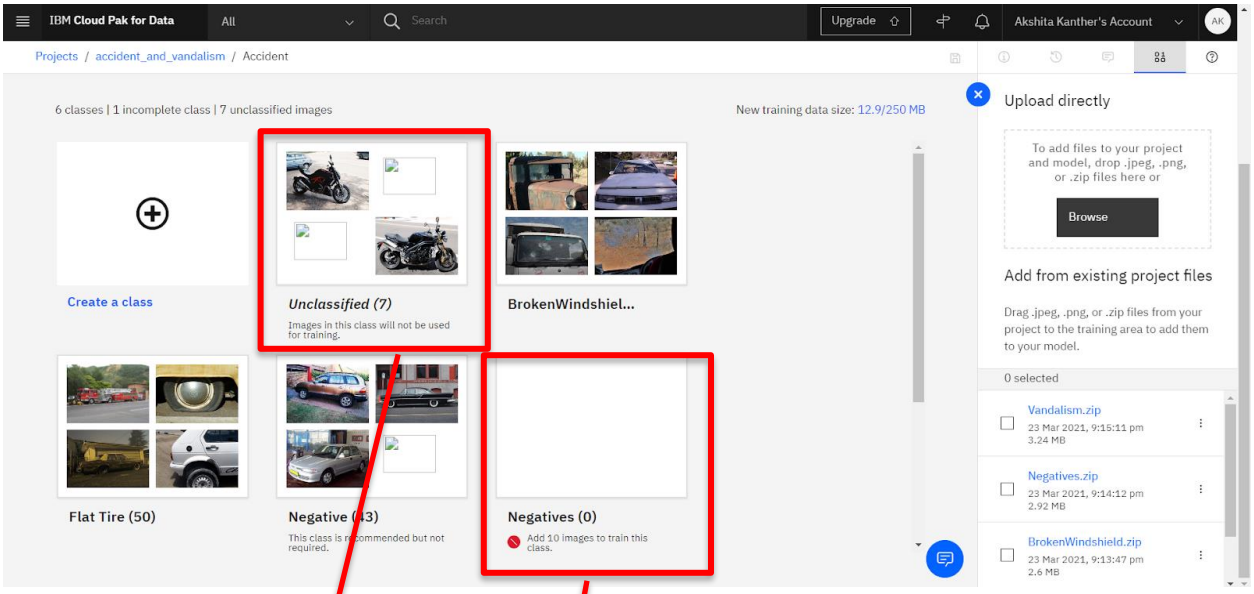


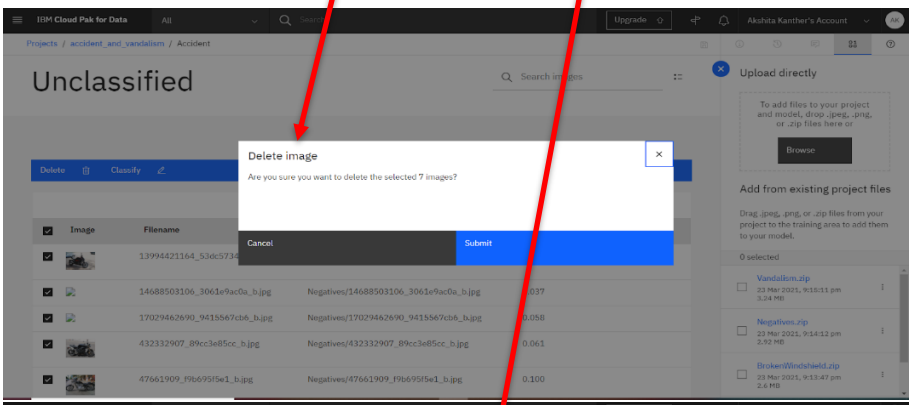
7. After going to Multiple selection icon of that class we will select all the images by checking their checkboxes and click on Reclassify to classify the images an their we will select a class “Negative “ from the given dropdown in section2 of reclassify images and then click on submit.

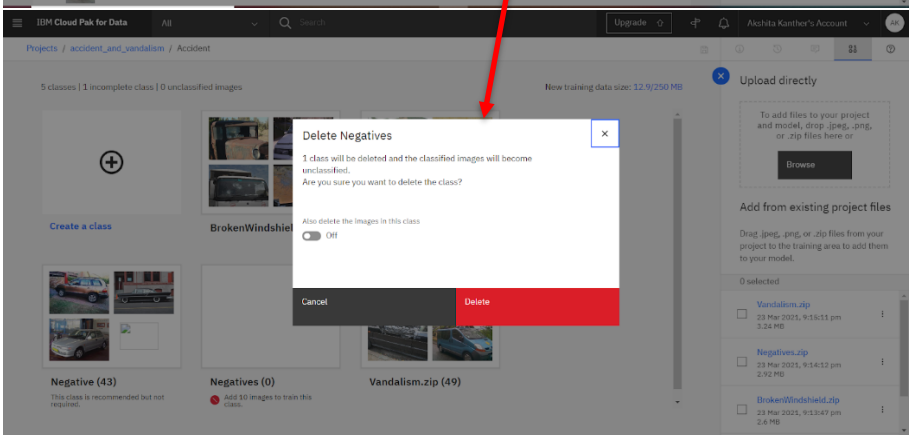




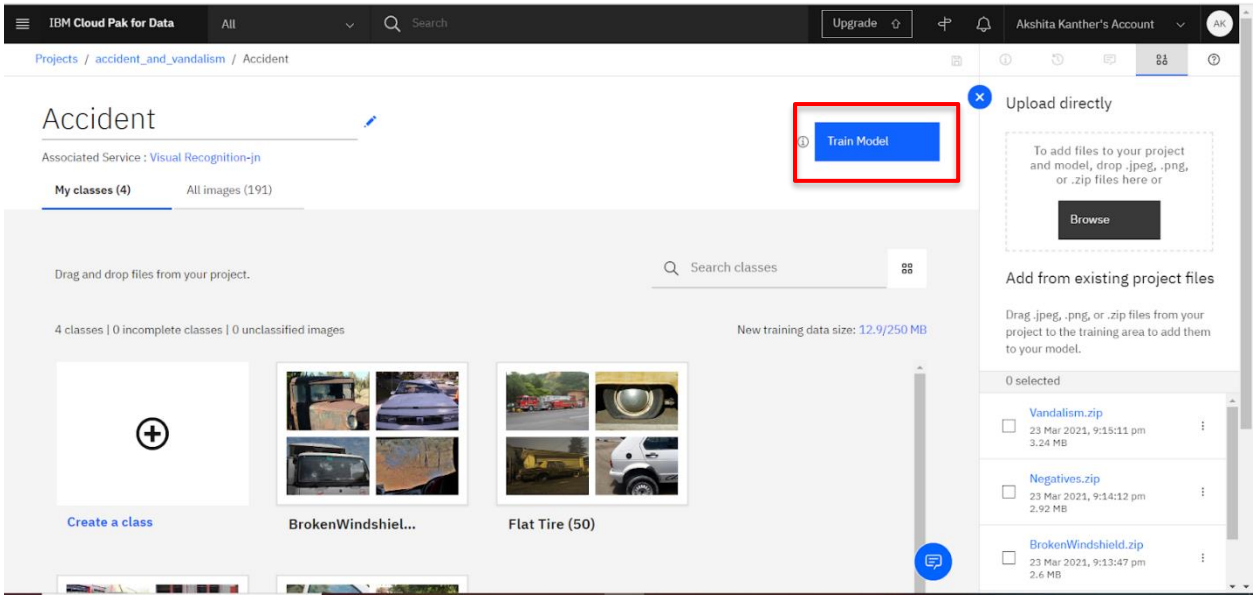
8. Then we will remove the classes which are not required like “Unclassified” and “Negatives”.



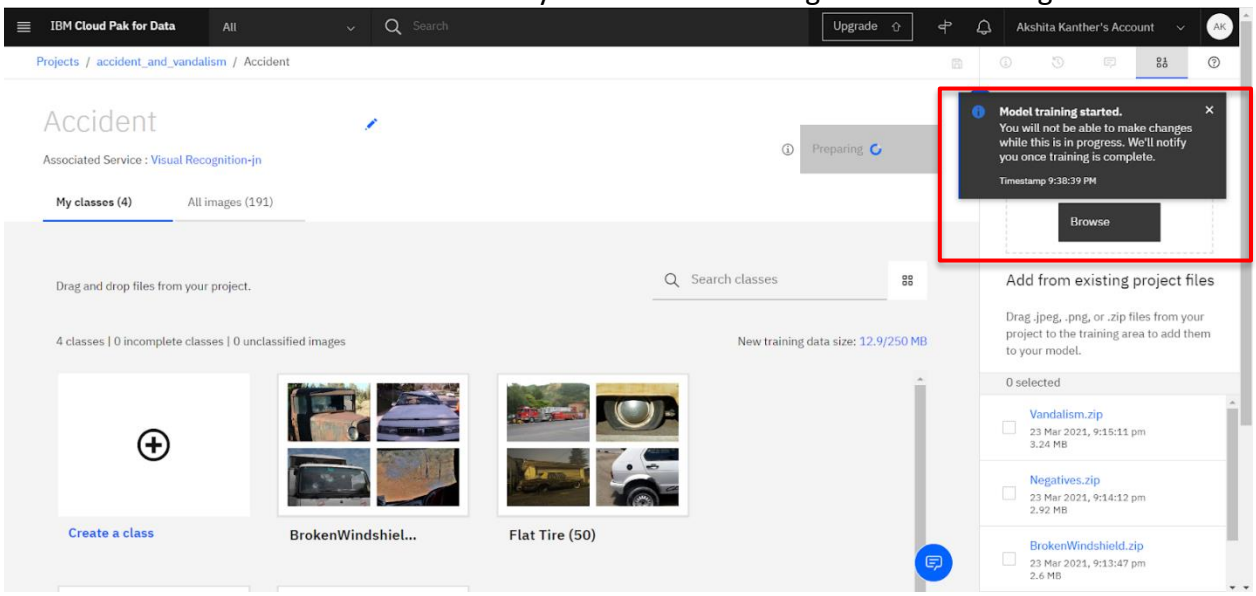




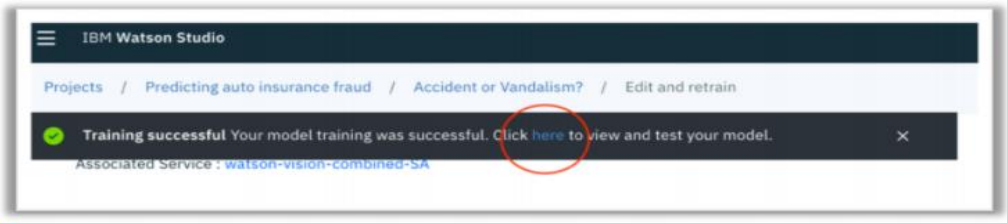
9. Then we will Train Model by clicking on “Train model”



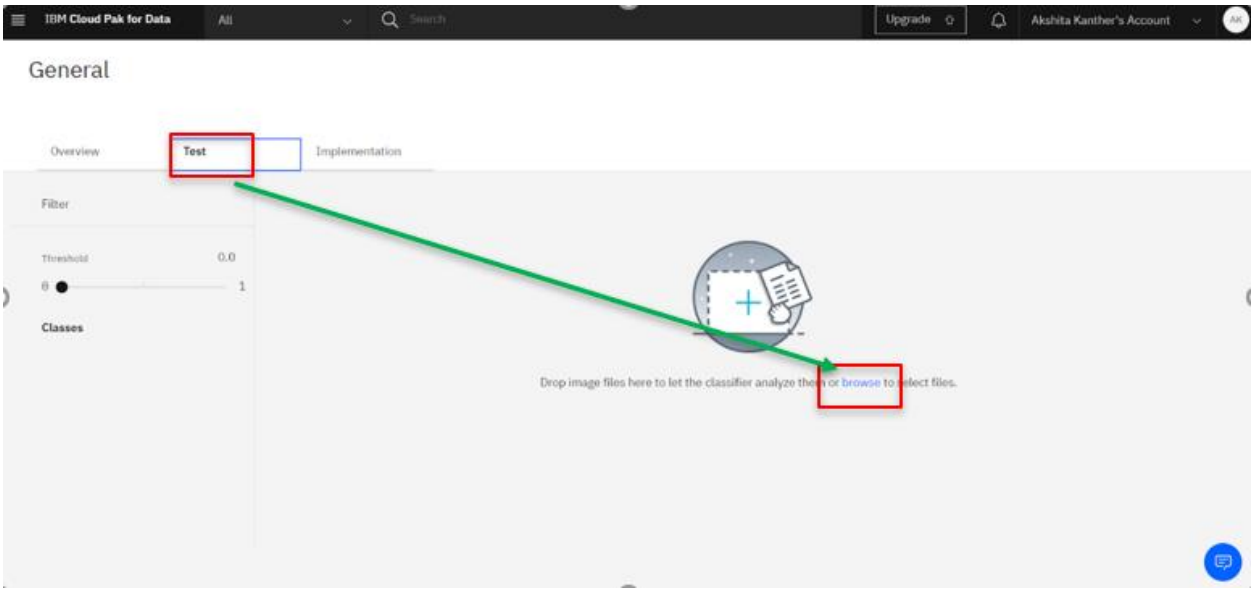
- In this it will show the status that your model is training or model training started.



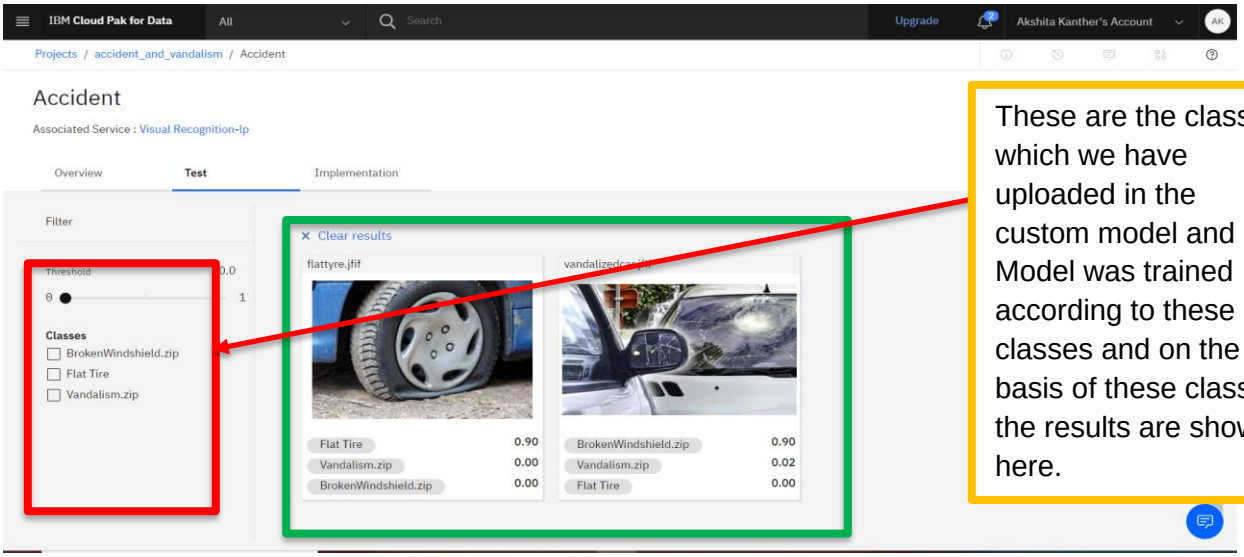
10. After the training of model is complete it , then in the message bar click here link to test the model.



11. Then go to Test Section in that upload the images of vandalized cars and broken windshield from google and then that model will test and classify the images uploaded and show the results according to the classes which are present or added in the model.



12. And this is the way the results are shown and if you want to try or test on other images then go on clear results and from browse again add new images and it will classify the images according to the classes present in that model.



V.Observations/Discussions (For applied/experimental sciences/materials-based labs): After conducting the above practical, we came to know about the IBM Visual Recognition service. We were able to train the model for our dataset according to the requirement of the customer.

Learning outcomes (What I have learnt): After conducting the practical, we now know how to work on IBM Cloud and its Visual Recognition service. We came to know how to work on a data set, how to classify the images and train the model according to classes needed and show results according to that classes.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			