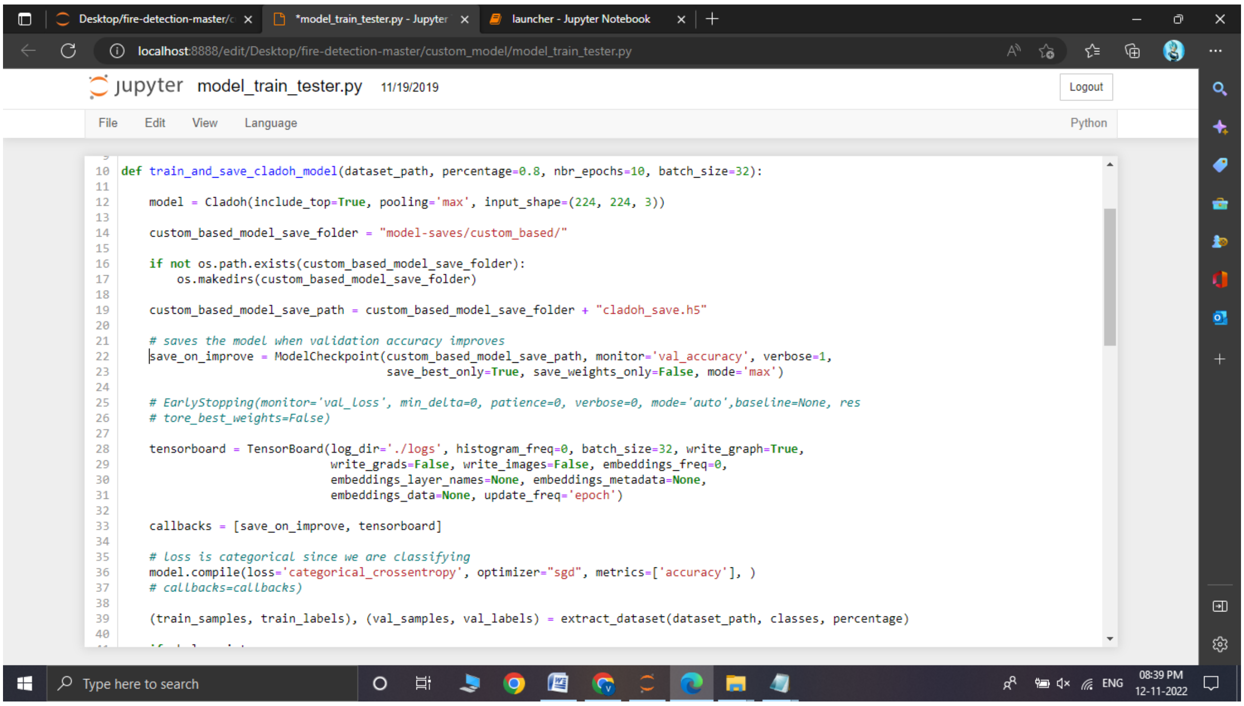
EMERGING METHODS FOR EARLY DETECTION OF FORESTFIRE

MODEL BUILDING

SAVE THE MODEL

Team ID	PNT2022TMID21968
Project Name	Project-Emerging methods for early detection of forest fire.



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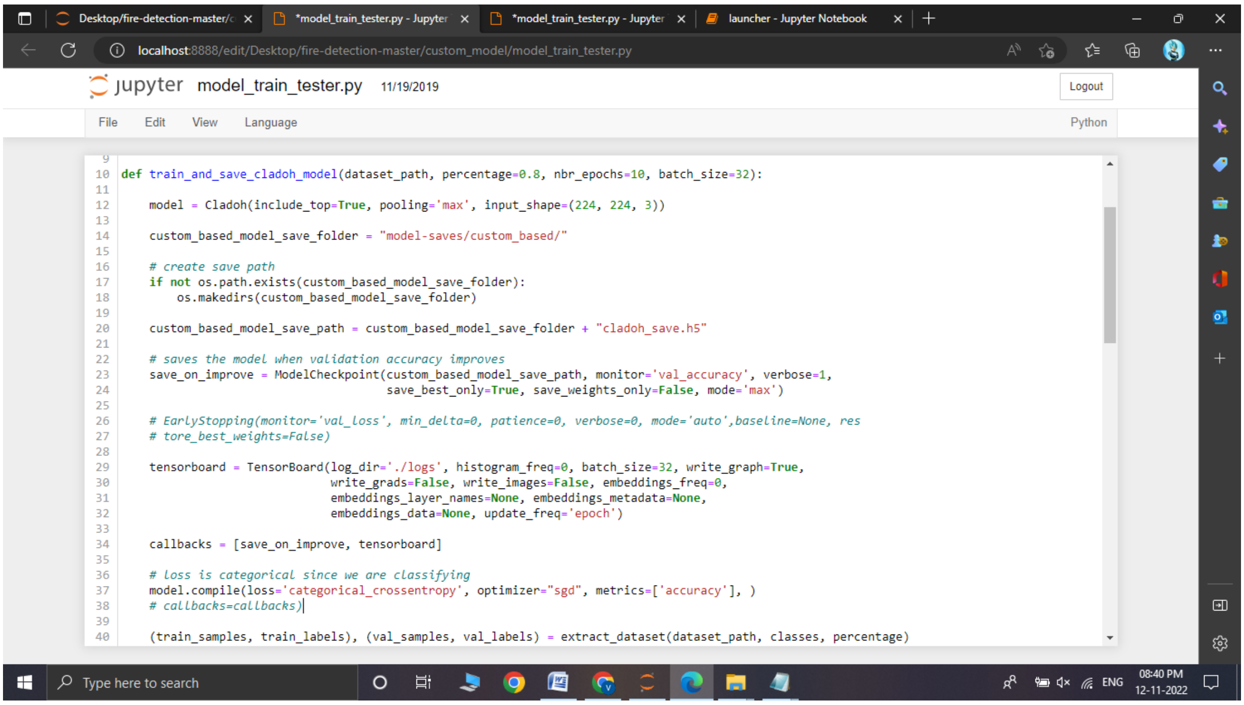
```python
def train_and_save_cladoh_model(dataset_path, percentage=0.8, nbr_epochs=10, batch_size=32):

    model = Cladoh(include_top=True, pooling='max', input_shape=(224, 224, 3))

    custom_based_model_save_folder = "model-saves/custom_based/"

    if not os.path.exists(custom_based_model_save_folder):
        os.makedirs(custom_based_model_save_folder)

    custom_based_model_save_path = custom_based_model_save_folder + "cladoh_save.h5"

    # saves the model when validation accuracy improves
    save_on_improve = ModelCheckpoint(custom_based_model_save_path, monitor='val_accuracy', verbose=1,
                                      save_best_only=True, save_weights_only=False, mode='max')

    # EarlyStopping(monitor='val_loss', min_delta=0, patience=0, verbose=0, mode='auto',baseline=None, res
    # tore_best_weights=False)

    tensorboard = TensorBoard(log_dir='./logs', histogram_freq=0, batch_size=32, write_graph=True,
                              write_grads=False, write_images=False, embeddings_freq=0,
                              embeddings_layer_names=None, embeddings_metadata=None,
                              embeddings_data=None, update_freq='epoch')

    callbacks = [save_on_improve, tensorboard]

    # loss is categorical since we are classifying
    model.compile(loss='categorical_crossentropy', optimizer="sgd", metrics=['accuracy'], )
    # callbacks=callbacks)

    (train_samples, train_labels), (val_samples, val_labels) = extract_dataset(dataset_path, classes, percentage)
```



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```python
def train_and_save_cladoh_model(dataset_path, percentage=0.8, nbr_epochs=10, batch_size=32):

    model = Cladoh(include_top=True, pooling='max', input_shape=(224, 224, 3))

    custom_based_model_save_folder = "model-saves/custom_based/"

    # create save path
    if not os.path.exists(custom_based_model_save_folder):
        os.makedirs(custom_based_model_save_folder)

    custom_based_model_save_path = custom_based_model_save_folder + "cladoh_save.h5"

    # saves the model when validation accuracy improves
    save_on_improve = ModelCheckpoint(custom_based_model_save_path, monitor='val_accuracy', verbose=1,
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    model.compile(loss='categorical_crossentropy', optimizer="sgd", metrics=['accuracy'], )
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    (train_samples, train_labels), (val_samples, val_labels) = extract_dataset(dataset_path, classes, percentage)
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