**#make workspace ready**

export WK\_DIR=$HOME/object\_detection

mkdir $WK\_DIR

cd $WK\_DIR

**#Download and install openVINO. Skip this if you already installed openVINO**

wget http://registrationcenter-download.intel.com/akdlm/irc\_nas/13521/l\_openvino\_toolkit\_p\_2018.3.343.tgz

tar -zxvf l\_openvino\_toolkit\_p\_2018.3.343.tgz

cd l\_openvino\_toolkit\_p\_2018.3.343/

./install\_cv\_sdk\_dependencies.sh

./install.sh

**#setup openVINO environment**

**#use one of the below commands depending on place where openVINO installed.**

option1: export VINO\_PATH=/opt/intel/computer\_vision\_sdk

option2: export VINO\_PATH=$HOME/intel/computer\_vision\_sdk

source $VINO\_PATH/bin/setupvars.sh

echo "source $VINO\_PATH/bin/setupvars.sh" >> ~/.bashrc

**#install all TF pre-requisites**

cd $VINO\_PATH/deployment\_tools/model\_optimizer/install\_prerequisites/

sudo ./install\_prerequisites\_tf.sh

cd $WK\_DIR

**#download trained models**

wget http://download.tensorflow.org/models/object\_detection/faster\_rcnn\_resnet50\_coco\_2018\_01\_28.tar.gz

tar -zxvf faster\_rcnn\_resnet50\_coco\_2018\_01\_28.tar.gz

cd faster\_rcnn\_resnet50\_coco\_2018\_01\_28

**#generate the openVINO Models .xml and .bin**

python3 $VINO\_PATH/deployment\_tools/model\_optimizer/mo.py --framework tf --input\_model frozen\_inference\_graph.pb --output\_dir ./ --output=detection\_boxes,detection\_scores,num\_detections --tensorflow\_use\_custom\_operations\_config $VINO\_PATH/deployment\_tools/model\_optimizer/extensions/front/tf/faster\_rcnn\_support.json --tensorflow\_object\_detection\_api\_pipeline\_config pipeline.config

**#Build inference engine samples**

mkdir -p $WK\_DIR/samples

cd $WK\_DIR/samples

cmake -DCMAKE\_BUILD\_TYPE=Release $VINO\_PATH/inference\_engine/samples

make

**#download and store the .labels file**

cd $WK\_DIR/faster\_rcnn\_resnet50\_coco\_2018\_01\_28

wget https://raw.githubusercontent.com/vdevaram/deep\_learning\_utilities\_cpu/master/dldt/frozen\_inference\_graph.labels

**#Run the inference on the model**

$WK\_DIR/samples/intel64/Release/object\_detection\_demo\_ssd\_async -i "cam" -m $WK\_DIR/faster\_rcnn\_resnet50\_coco\_2018\_01\_28/frozen\_inference\_graph.xml -d CPU