Documentation

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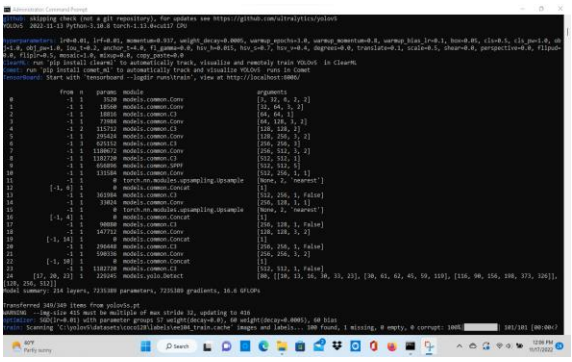
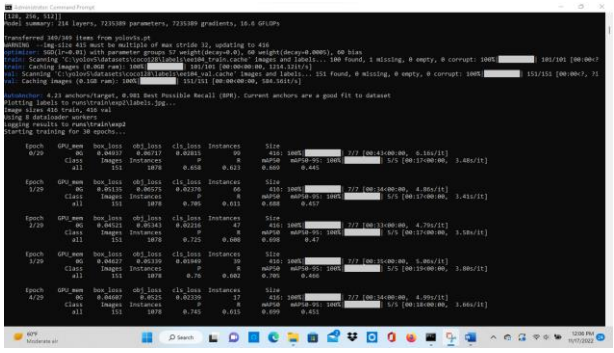
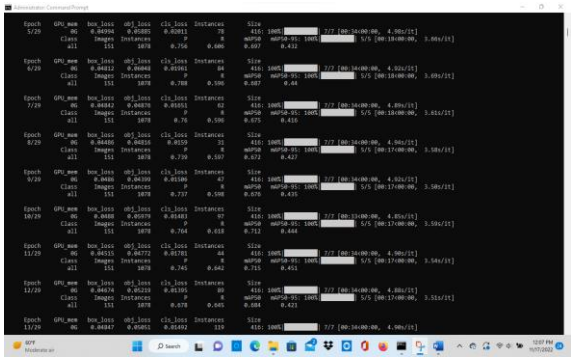
Project Title: Laboratory Assignment #8

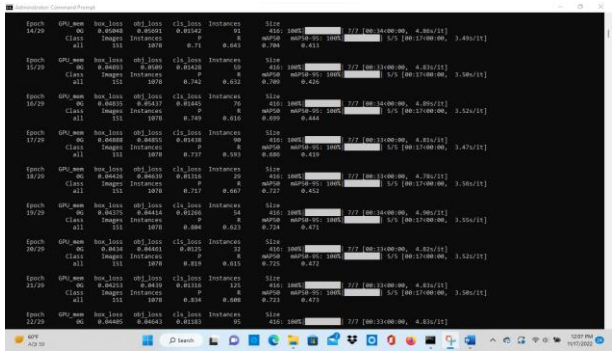
Project Description: The goal of this lab demonstrates the ability to enhance recognition capability based on an existing Yolov5 dataset. Also, to demonstrate the ability to create an arcade-class game with sound and graphic settings to allow a challenge dance competition between two game players.

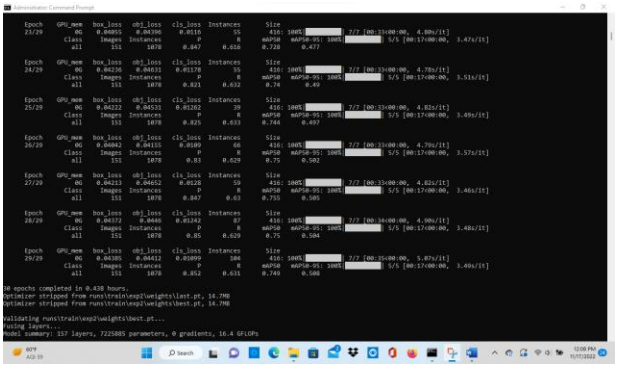
The console copied of the training output

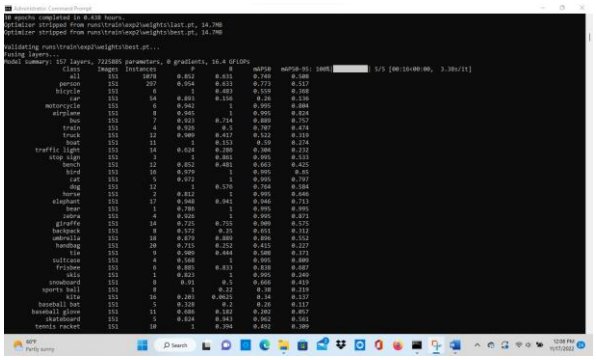


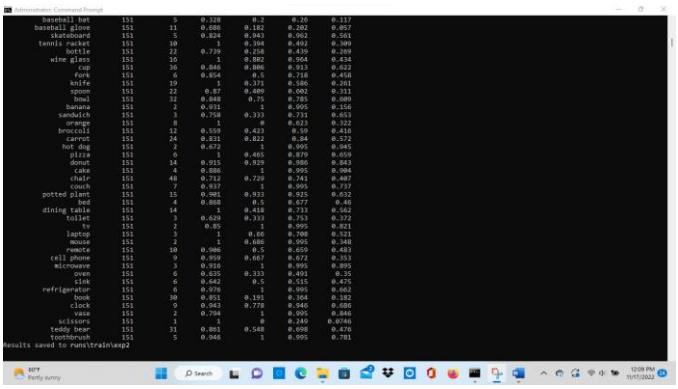




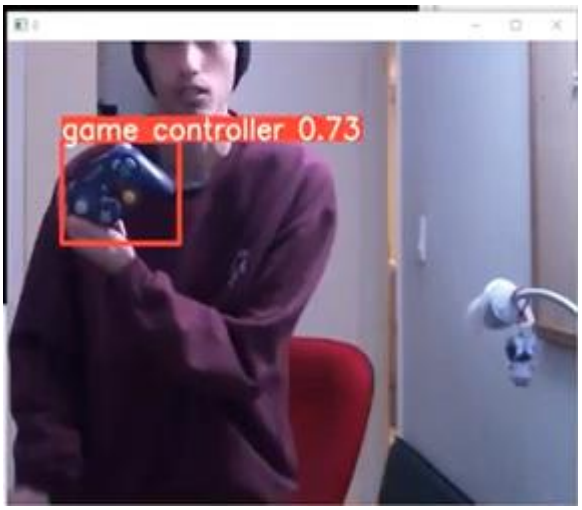








Individual images recognized from the Yolov5 dataset.



Game Development

The dance moves of the actor

```
def reset_dancer():
    global game_over

    if not game_over:
        dancer.image = "dancer-start"
        up.image = "up"
        right.image = "right"
        down.image = "down"
        left.image = "left"
    return
```

To determine the dancing time and scores of the two dancers

```
move_list2 = []
display_list2 = []
rounds2 = 0
score2 = 0
current_move2 = 0
count2 = 4
dance_length2 = 4

moves_complete2 = False
game_over2 = False
```

The condition set for the two players move set

```
  if key == keys.W:
      update_dancer2(0)
      if move_list2[current_move2]==0:
          score2 = score2 + 1
          next_move2()
      else:
          game_over2 = True
  elif key == keys.D:
      update_dancer2(1)
      if move_list2[current_move2]==1:
          score2 = score2 + 1
          next_move2()
      else:
          game_over2 = True
  elif key == keys.S:
      update_dancer2(2)
      if move_list2[current_move2]==2:
          score2 = score2 + 1
          next_move2()
      else:
          game_over2 = True
  elif key == keys.A:
      update_dancer2(3)
      if move_list2[current_move2]==3:
          score2 = score2 + 1
          next_move2()
      else:
          game_over2 = True
  return
```