Code Script

```
[]: import cv2
     import glob
     import numpy as np
     import matplotlib.pyplot as plt
     from skimage.transform import resize
     from IPython.display import clear output
     from matplotlib.pyplot import imshow
     import pandas as pd
     from tensorflow.keras.layers import *
     from tensorflow.keras.models import Sequential, Model
     from tensorflow.keras.utils import to_categorical
     from tensorflow.keras.losses import *
     from tensorflow.keras.optimizers import *
     from tensorflow.keras.activations import *
     from tensorflow.keras.metrics import *
     from sklearn.model_selection import train_test_split
     import tensorflow.keras as keras
     import tensorflow as tf
     from tensorflow.keras import backend as k
     import datetime
    /opt/conda/lib/python3.10/site-packages/tensorflow_io/python/ops/__init__.py:98:
    UserWarning: unable to load libtensorflow_io_plugins.so: unable to open file:
    libtensorflow_io_plugins.so, from paths: ['/opt/conda/lib/python3.10/site-
    packages/tensorflow_io/python/ops/libtensorflow_io_plugins.so']
    caused by: ['/opt/conda/lib/python3.10/site-
    packages/tensorflow_io/python/ops/libtensorflow_io_plugins.so: undefined symbol:
    _ZN3tsl6StatusC1EN1Otensorflow5error4CodeESt17basic_string_viewIcSt11char_traits
    IcEENS 14SourceLocationE']
      warnings.warn(f"unable to load libtensorflow_io_plugins.so: {e}")
    /opt/conda/lib/python3.10/site-
    packages/tensorflow_io/python/ops/__init__.py:104: UserWarning: file system
    plugins are not loaded: unable to open file: libtensorflow_io.so, from paths:
    ['/opt/conda/lib/python3.10/site-
    packages/tensorflow_io/python/ops/libtensorflow_io.so']
    caused by: ['/opt/conda/lib/python3.10/site-
    packages/tensorflow_io/python/ops/libtensorflow_io.so: undefined symbol:
    _ZTVN1Otensorflow13GcsFileSystemE']
```

```
warnings.warn(f"file system plugins are not loaded: {e}")
```

```
[]: train_df = pd.read_csv("../input/ucf101/UCF101TrainTestSplits-RecognitionTask/
                 oucfTrainTestlist/trainlist01.txt",sep = " ",header = None,names = No
                 ⇔['path','class'])
             train_df
[]:
                                                                                                                                          path class
                              ApplyEyeMakeup/v_ApplyEyeMakeup_g08_c01.avi
                                                                                                                                                                      1
             1
                              ApplyEyeMakeup/v_ApplyEyeMakeup_g08_c02.avi
                                                                                                                                                                      1
             2
                              ApplyEyeMakeup/v_ApplyEyeMakeup_g08_c03.avi
                                                                                                                                                                      1
                              ApplyEyeMakeup/v_ApplyEyeMakeup_g08_c04.avi
             3
                                                                                                                                                                      1
             4
                              ApplyEyeMakeup/v ApplyEyeMakeup g08 c05.avi
                                                                                                                                                                      1
             9532
                                                                                     YoYo/v_YoYo_g25_c01.avi
                                                                                                                                                                 101
             9533
                                                                                     YoYo/v_YoYo_g25_c02.avi
                                                                                                                                                                 101
             9534
                                                                                     YoYo/v_YoYo_g25_c03.avi
                                                                                                                                                                 101
             9535
                                                                                     YoYo/v_YoYo_g25_c04.avi
                                                                                                                                                                 101
             9536
                                                                                     YoYo/v_YoYo_g25_c05.avi
                                                                                                                                                                 101
             [9537 rows x 2 columns]
[]: df = pd.read_csv("/input/ucf101/UCF101TrainTestSplits-RecognitionTask/
                oucfTrainTestlist/classInd.txt",sep = " ",header = None,names = □
                df
[]:
                            class
                                                                                      ind
             0
                                      1
                                                       ApplyEyeMakeup
             1
                                      2
                                                          ApplyLipstick
             2
                                      3
                                                                           Archery
             3
                                      4
                                                            BabyCrawling
             4
                                      5
                                                               BalanceBeam
                                              VolleyballSpiking
             96
                                   97
             97
                                   98
                                                       WalkingWithDog
                                   99
                                                               WallPushups
             98
                                 100
             99
                                                       WritingOnBoard
                                 101
                                                                                   YoYo
             100
             [101 rows x 2 columns]
[]: content = []
             i = 50
             n = 50
             while len(content) < 20 and i < 102:
                         if len(train_df[train_df['class']==i]) >= n:
                                    df_temp = train_df[train_df['class']==i].iloc[:n]
```

```
path = df_temp['path']
    content.append(path)

i += 1

content = np.array(content)
```

[]: content

```
[]: array([['Knitting/v_Knitting_g08_c01.avi',
             'Knitting/v_Knitting_g08_c02.avi',
             'Knitting/v_Knitting_g08_c03.avi',
             'Knitting/v_Knitting_g08_c04.avi',
             'Knitting/v_Knitting_g09_c01.avi',
             'Knitting/v_Knitting_g09_c02.avi',
             'Knitting/v_Knitting_g09_c03.avi',
             'Knitting/v_Knitting_g09_c04.avi',
             'Knitting/v_Knitting_g09_c05.avi',
             'Knitting/v_Knitting_g10_c01.avi',
             'Knitting/v_Knitting_g10_c02.avi',
             'Knitting/v_Knitting_g10_c03.avi',
             'Knitting/v_Knitting_g10_c04.avi',
             'Knitting/v_Knitting_g10_c05.avi',
             'Knitting/v_Knitting_g10_c06.avi',
             'Knitting/v_Knitting_g10_c07.avi',
             'Knitting/v_Knitting_g11_c01.avi',
             'Knitting/v_Knitting_g11_c02.avi',
             'Knitting/v_Knitting_g11_c03.avi',
             'Knitting/v_Knitting_g11_c04.avi',
             'Knitting/v Knitting g11 c05.avi',
             'Knitting/v_Knitting_g11_c06.avi',
             'Knitting/v_Knitting_g12_c01.avi',
             'Knitting/v_Knitting_g12_c02.avi',
             'Knitting/v_Knitting_g12_c03.avi',
             'Knitting/v_Knitting_g12_c04.avi',
             'Knitting/v_Knitting_g13_c01.avi',
             'Knitting/v_Knitting_g13_c02.avi',
             'Knitting/v_Knitting_g13_c03.avi',
             'Knitting/v_Knitting_g13_c04.avi',
             'Knitting/v_Knitting_g13_c05.avi',
             'Knitting/v_Knitting_g14_c01.avi',
             'Knitting/v_Knitting_g14_c02.avi',
             'Knitting/v_Knitting_g14_c03.avi',
             'Knitting/v_Knitting_g14_c04.avi',
             'Knitting/v Knitting g14 c05.avi',
             'Knitting/v_Knitting_g15_c01.avi',
```

```
'Knitting/v_Knitting_g15_c02.avi',
'Knitting/v_Knitting_g15_c03.avi',
'Knitting/v_Knitting_g15_c04.avi',
'Knitting/v_Knitting_g15_c05.avi',
'Knitting/v_Knitting_g15_c06.avi',
'Knitting/v_Knitting_g15_c07.avi',
'Knitting/v Knitting g16 c01.avi',
'Knitting/v_Knitting_g16_c02.avi',
'Knitting/v Knitting g16 c03.avi',
'Knitting/v Knitting g16 c04.avi',
'Knitting/v Knitting g16 c05.avi',
'Knitting/v_Knitting_g17_c01.avi',
'Knitting/v_Knitting_g17_c02.avi'],
['LongJump/v_LongJump_g08_c01.avi',
'LongJump/v LongJump g08 c02.avi',
'LongJump/v_LongJump_g08_c03.avi',
'LongJump/v_LongJump_g08_c04.avi',
'LongJump/v_LongJump_g08_c05.avi',
'LongJump/v_LongJump_g08_c06.avi',
'LongJump/v_LongJump_g09_c01.avi',
'LongJump/v_LongJump_g09_c02.avi',
'LongJump/v LongJump g09 c03.avi',
'LongJump/v_LongJump_g09_c04.avi',
'LongJump/v LongJump g09 c05.avi',
'LongJump/v LongJump g09 c06.avi',
'LongJump/v LongJump g10 c01.avi',
'LongJump/v LongJump g10 c02.avi',
'LongJump/v LongJump g10 c03.avi',
'LongJump/v_LongJump_g10_c04.avi',
'LongJump/v_LongJump_g10_c05.avi',
'LongJump/v_LongJump_g10_c06.avi',
'LongJump/v_LongJump_g10_c07.avi',
'LongJump/v_LongJump_g11_c01.avi',
'LongJump/v_LongJump_g11_c02.avi',
'LongJump/v_LongJump_g11_c03.avi',
'LongJump/v_LongJump_g11_c04.avi',
'LongJump/v LongJump g11 c05.avi',
'LongJump/v_LongJump_g11_c06.avi',
'LongJump/v LongJump g12 c01.avi',
'LongJump/v LongJump g12 c02.avi',
'LongJump/v LongJump g12 c03.avi',
'LongJump/v_LongJump_g12_c04.avi',
'LongJump/v LongJump g12 c05.avi',
'LongJump/v_LongJump_g12_c06.avi',
'LongJump/v_LongJump_g13_c01.avi',
'LongJump/v_LongJump_g13_c02.avi',
'LongJump/v_LongJump_g13_c03.avi',
```

```
'LongJump/v_LongJump_g13_c04.avi',
'LongJump/v LongJump g13 c05.avi',
'LongJump/v_LongJump_g13_c06.avi',
'LongJump/v_LongJump_g14_c01.avi',
'LongJump/v_LongJump_g14_c02.avi',
'LongJump/v_LongJump_g14_c03.avi',
'LongJump/v LongJump g14 c04.avi',
'LongJump/v_LongJump_g14_c05.avi',
'LongJump/v LongJump g15 c01.avi',
'LongJump/v LongJump g15 c02.avi',
 'LongJump/v LongJump g15 c03.avi',
'LongJump/v_LongJump_g15_c04.avi',
'LongJump/v LongJump g15 c05.avi',
'LongJump/v_LongJump_g16_c01.avi',
'LongJump/v LongJump g16 c02.avi',
'LongJump/v_LongJump_g16_c03.avi'],
['Lunges/v_Lunges_g08_c01.avi', 'Lunges/v_Lunges_g08_c02.avi',
'Lunges/v_Lunges_g08_c03.avi', 'Lunges/v_Lunges_g08_c04.avi',
'Lunges/v_Lunges_g09_c01.avi', 'Lunges/v_Lunges_g09_c02.avi',
'Lunges/v_Lunges_g09_c03.avi', 'Lunges/v_Lunges_g09_c04.avi',
'Lunges/v_Lunges_g10_c01.avi', 'Lunges/v_Lunges_g10_c02.avi',
'Lunges/v Lunges g10 c03.avi', 'Lunges/v Lunges g10 c04.avi',
'Lunges/v_Lunges_g10_c05.avi', 'Lunges/v_Lunges_g10_c06.avi',
'Lunges/v Lunges g11 c01.avi', 'Lunges/v Lunges g11 c02.avi',
'Lunges/v Lunges g11 c03.avi', 'Lunges/v Lunges g11 c04.avi',
'Lunges/v Lunges g11 c05.avi', 'Lunges/v Lunges g11 c06.avi',
'Lunges/v_Lunges_g11_c07.avi', 'Lunges/v_Lunges_g12_c01.avi',
'Lunges/v Lunges g12 c02.avi', 'Lunges/v Lunges g12 c03.avi',
'Lunges/v_Lunges_g12_c04.avi', 'Lunges/v_Lunges_g12_c05.avi',
'Lunges/v Lunges g13 c01.avi', 'Lunges/v Lunges g13 c02.avi',
'Lunges/v_Lunges_g13_c03.avi', 'Lunges/v_Lunges_g13_c04.avi',
'Lunges/v_Lunges_g13_c05.avi', 'Lunges/v_Lunges_g13_c06.avi',
'Lunges/v_Lunges_g14_c01.avi', 'Lunges/v_Lunges_g14_c02.avi',
'Lunges/v_Lunges_g14_c03.avi', 'Lunges/v_Lunges_g14_c04.avi',
'Lunges/v_Lunges_g14_c05.avi', 'Lunges/v_Lunges_g14_c06.avi',
'Lunges/v_Lunges_g14_c07.avi', 'Lunges/v_Lunges_g15_c01.avi',
'Lunges/v Lunges g15 c02.avi', 'Lunges/v Lunges g15 c03.avi',
'Lunges/v Lunges g15 c04.avi', 'Lunges/v Lunges g16 c01.avi',
'Lunges/v Lunges g16 c02.avi', 'Lunges/v Lunges g16 c03.avi',
'Lunges/v Lunges g16 c04.avi', 'Lunges/v Lunges g17 c01.avi',
'Lunges/v_Lunges_g17_c02.avi', 'Lunges/v_Lunges_g17_c03.avi'],
['MilitaryParade/v_MilitaryParade_g08_c01.avi',
 'MilitaryParade/v MilitaryParade g08 c02.avi',
'MilitaryParade/v_MilitaryParade_g08_c03.avi',
'MilitaryParade/v_MilitaryParade_g08_c04.avi',
'MilitaryParade/v_MilitaryParade_g08_c05.avi',
'MilitaryParade/v_MilitaryParade_g09_c01.avi',
```

```
'MilitaryParade/v_MilitaryParade_g09_c02.avi',
'MilitaryParade/v_MilitaryParade_g09_c03.avi',
'MilitaryParade/v_MilitaryParade_g09_c04.avi',
'MilitaryParade/v_MilitaryParade_g09_c05.avi',
'MilitaryParade/v_MilitaryParade_g09_c06.avi',
'MilitaryParade/v_MilitaryParade_g09_c07.avi',
'MilitaryParade/v MilitaryParade g10 c01.avi',
'MilitaryParade/v MilitaryParade g10 c02.avi',
'MilitaryParade/v MilitaryParade g10 c03.avi',
'MilitaryParade/v MilitaryParade g10 c04.avi',
'MilitaryParade/v MilitaryParade g10 c05.avi',
'MilitaryParade/v_MilitaryParade_g11_c01.avi',
'MilitaryParade/v MilitaryParade g11 c02.avi',
'MilitaryParade/v_MilitaryParade_g11_c03.avi',
'MilitaryParade/v MilitaryParade g11 c04.avi',
'MilitaryParade/v_MilitaryParade_g11_c05.avi',
'MilitaryParade/v_MilitaryParade_g12_c01.avi',
'MilitaryParade/v_MilitaryParade_g12_c02.avi',
'MilitaryParade/v_MilitaryParade_g12_c03.avi',
'MilitaryParade/v_MilitaryParade_g12_c04.avi',
'MilitaryParade/v_MilitaryParade_g12_c05.avi',
'MilitaryParade/v MilitaryParade g13 c01.avi',
'MilitaryParade/v_MilitaryParade_g13_c02.avi',
'MilitaryParade/v MilitaryParade g13 c03.avi',
'MilitaryParade/v MilitaryParade g13 c04.avi',
'MilitaryParade/v MilitaryParade g14 c01.avi',
'MilitaryParade/v_MilitaryParade_g14_c02.avi',
'MilitaryParade/v MilitaryParade g14 c03.avi',
'MilitaryParade/v_MilitaryParade_g14_c04.avi',
'MilitaryParade/v_MilitaryParade_g14_c05.avi',
'MilitaryParade/v_MilitaryParade_g15_c01.avi',
'MilitaryParade/v_MilitaryParade_g15_c02.avi',
'MilitaryParade/v_MilitaryParade_g15_c03.avi',
'MilitaryParade/v_MilitaryParade_g15_c04.avi',
'MilitaryParade/v_MilitaryParade_g15_c05.avi',
'MilitaryParade/v_MilitaryParade_g15_c06.avi',
'MilitaryParade/v MilitaryParade g15 c07.avi',
'MilitaryParade/v MilitaryParade g16 c01.avi',
'MilitaryParade/v MilitaryParade g16 c02.avi',
'MilitaryParade/v MilitaryParade g16 c03.avi',
'MilitaryParade/v MilitaryParade g16 c04.avi',
'MilitaryParade/v_MilitaryParade_g17_c01.avi',
'MilitaryParade/v MilitaryParade g17 c02.avi',
'MilitaryParade/v_MilitaryParade_g17_c03.avi'],
['Mixing/v_Mixing_g08_c01.avi', 'Mixing/v_Mixing_g08_c02.avi',
'Mixing/v_Mixing_g08_c03.avi', 'Mixing/v_Mixing_g08_c04.avi',
'Mixing/v_Mixing_g08_c05.avi', 'Mixing/v_Mixing_g09_c01.avi',
```

```
'Mixing/v_Mixing_g09_c02.avi', 'Mixing/v_Mixing_g09_c03.avi',
'Mixing/v_Mixing_g09_c04.avi', 'Mixing/v_Mixing_g09_c05.avi',
'Mixing/v_Mixing_g09_c06.avi', 'Mixing/v_Mixing_g09_c07.avi',
'Mixing/v_Mixing_g10_c01.avi', 'Mixing/v_Mixing_g10_c02.avi',
'Mixing/v_Mixing_g10_c03.avi', 'Mixing/v_Mixing_g10_c04.avi',
'Mixing/v_Mixing_g10_c05.avi', 'Mixing/v_Mixing_g11_c01.avi',
'Mixing/v Mixing g11 c02.avi', 'Mixing/v Mixing g11 c03.avi',
'Mixing/v_Mixing_g11_c04.avi', 'Mixing/v_Mixing_g11_c05.avi',
'Mixing/v Mixing g11 c06.avi', 'Mixing/v Mixing g11 c07.avi',
'Mixing/v Mixing g12 c01.avi', 'Mixing/v Mixing g12 c02.avi',
'Mixing/v_Mixing_g12_c03.avi', 'Mixing/v_Mixing_g12_c04.avi',
'Mixing/v_Mixing_g12_c05.avi', 'Mixing/v_Mixing_g12_c06.avi',
'Mixing/v_Mixing_g12_c07.avi', 'Mixing/v_Mixing_g13_c01.avi',
'Mixing/v_Mixing_g13_c02.avi', 'Mixing/v_Mixing_g13_c03.avi',
'Mixing/v_Mixing_g13_c04.avi', 'Mixing/v_Mixing_g13_c05.avi',
'Mixing/v_Mixing_g13_c06.avi', 'Mixing/v_Mixing_g14_c01.avi',
'Mixing/v_Mixing_g14_c02.avi', 'Mixing/v_Mixing_g14_c03.avi',
'Mixing/v_Mixing_g14_c04.avi', 'Mixing/v_Mixing_g14_c05.avi',
'Mixing/v_Mixing_g14_c06.avi', 'Mixing/v_Mixing_g14_c07.avi',
'Mixing/v_Mixing_g15_c01.avi', 'Mixing/v_Mixing_g15_c02.avi',
'Mixing/v_Mixing_g15_c03.avi', 'Mixing/v_Mixing_g15_c04.avi',
'Mixing/v Mixing g15 c05.avi', 'Mixing/v Mixing g15 c06.avi'],
['MoppingFloor/v_MoppingFloor_g08_c01.avi',
 'MoppingFloor/v MoppingFloor g08 c02.avi',
 'MoppingFloor/v MoppingFloor g08 c03.avi',
'MoppingFloor/v MoppingFloor g08 c04.avi',
'MoppingFloor/v_MoppingFloor_g09_c01.avi',
'MoppingFloor/v_MoppingFloor_g09_c02.avi',
'MoppingFloor/v_MoppingFloor_g09_c03.avi',
'MoppingFloor/v_MoppingFloor_g09_c04.avi',
'MoppingFloor/v_MoppingFloor_g10_c01.avi',
'MoppingFloor/v_MoppingFloor_g10_c02.avi',
'MoppingFloor/v_MoppingFloor_g10_c03.avi',
'MoppingFloor/v_MoppingFloor_g10_c04.avi',
'MoppingFloor/v_MoppingFloor_g11_c01.avi',
'MoppingFloor/v_MoppingFloor_g11_c02.avi',
'MoppingFloor/v MoppingFloor g11 c03.avi',
'MoppingFloor/v_MoppingFloor_g11_c04.avi',
'MoppingFloor/v MoppingFloor g12 c01.avi',
'MoppingFloor/v MoppingFloor g12 c02.avi',
'MoppingFloor/v MoppingFloor g12 c03.avi',
 'MoppingFloor/v_MoppingFloor_g12_c04.avi',
'MoppingFloor/v MoppingFloor g13 c01.avi',
'MoppingFloor/v_MoppingFloor_g13_c02.avi',
'MoppingFloor/v_MoppingFloor_g13_c03.avi',
'MoppingFloor/v_MoppingFloor_g13_c04.avi',
'MoppingFloor/v_MoppingFloor_g14_c01.avi',
```

```
'MoppingFloor/v_MoppingFloor_g14_c02.avi',
'MoppingFloor/v_MoppingFloor_g14_c03.avi',
'MoppingFloor/v_MoppingFloor_g14_c04.avi',
 'MoppingFloor/v_MoppingFloor_g15_c01.avi',
'MoppingFloor/v_MoppingFloor_g15_c02.avi',
'MoppingFloor/v_MoppingFloor_g15_c03.avi',
'MoppingFloor/v MoppingFloor g15 c04.avi',
'MoppingFloor/v MoppingFloor g16 c01.avi',
'MoppingFloor/v MoppingFloor g16 c02.avi',
'MoppingFloor/v MoppingFloor g16 c03.avi',
 'MoppingFloor/v MoppingFloor g16 c04.avi',
'MoppingFloor/v_MoppingFloor_g17_c01.avi',
'MoppingFloor/v MoppingFloor g17 c02.avi',
'MoppingFloor/v_MoppingFloor_g17_c03.avi',
'MoppingFloor/v MoppingFloor g17 c04.avi',
'MoppingFloor/v_MoppingFloor_g17_c05.avi',
'MoppingFloor/v_MoppingFloor_g17_c06.avi',
'MoppingFloor/v_MoppingFloor_g18_c01.avi',
'MoppingFloor/v_MoppingFloor_g18_c02.avi',
'MoppingFloor/v_MoppingFloor_g18_c03.avi',
'MoppingFloor/v_MoppingFloor_g18_c04.avi',
'MoppingFloor/v MoppingFloor g18 c05.avi',
'MoppingFloor/v_MoppingFloor_g18_c06.avi',
'MoppingFloor/v MoppingFloor g19 c01.avi',
 'MoppingFloor/v MoppingFloor g19 c02.avi'],
['Nunchucks/v Nunchucks g08 c01.avi',
 'Nunchucks/v_Nunchucks_g08_c02.avi',
 'Nunchucks/v Nunchucks g08 c03.avi',
'Nunchucks/v_Nunchucks_g08_c04.avi',
'Nunchucks/v_Nunchucks_g08_c05.avi',
'Nunchucks/v_Nunchucks_g08_c06.avi',
'Nunchucks/v_Nunchucks_g08_c07.avi',
'Nunchucks/v_Nunchucks_g09_c01.avi',
'Nunchucks/v_Nunchucks_g09_c02.avi',
'Nunchucks/v_Nunchucks_g09_c03.avi',
'Nunchucks/v_Nunchucks_g09_c04.avi',
'Nunchucks/v Nunchucks g09 c05.avi',
'Nunchucks/v Nunchucks_g10_c01.avi',
'Nunchucks/v Nunchucks g10 c02.avi',
'Nunchucks/v Nunchucks g10 c03.avi',
'Nunchucks/v Nunchucks g10 c04.avi',
'Nunchucks/v_Nunchucks_g10_c05.avi',
'Nunchucks/v Nunchucks g10 c06.avi',
'Nunchucks/v_Nunchucks_g11_c01.avi',
'Nunchucks/v_Nunchucks_g11_c02.avi',
'Nunchucks/v_Nunchucks_g11_c03.avi',
'Nunchucks/v_Nunchucks_g11_c04.avi',
```

```
'Nunchucks/v_Nunchucks_g11_c05.avi',
'Nunchucks/v_Nunchucks_g11_c06.avi',
'Nunchucks/v_Nunchucks_g12_c01.avi',
'Nunchucks/v_Nunchucks_g12_c02.avi',
'Nunchucks/v_Nunchucks_g12_c03.avi',
'Nunchucks/v_Nunchucks_g12_c04.avi',
'Nunchucks/v Nunchucks g12 c05.avi',
'Nunchucks/v_Nunchucks_g13_c01.avi',
'Nunchucks/v Nunchucks g13 c02.avi',
'Nunchucks/v_Nunchucks_g13_c03.avi',
 'Nunchucks/v Nunchucks g13 c04.avi',
'Nunchucks/v_Nunchucks_g13_c05.avi',
'Nunchucks/v_Nunchucks_g13_c06.avi',
'Nunchucks/v_Nunchucks_g13_c07.avi',
'Nunchucks/v_Nunchucks_g14_c01.avi',
'Nunchucks/v_Nunchucks_g14_c02.avi',
'Nunchucks/v_Nunchucks_g14_c03.avi',
'Nunchucks/v_Nunchucks_g14_c04.avi',
'Nunchucks/v_Nunchucks_g15_c01.avi',
'Nunchucks/v_Nunchucks_g15_c02.avi',
'Nunchucks/v_Nunchucks_g15_c03.avi',
'Nunchucks/v Nunchucks g15 c04.avi',
'Nunchucks/v_Nunchucks_g15_c05.avi',
'Nunchucks/v Nunchucks g15 c06.avi',
'Nunchucks/v Nunchucks g16 c01.avi',
'Nunchucks/v Nunchucks g16 c02.avi',
'Nunchucks/v_Nunchucks_g16_c03.avi',
 'Nunchucks/v_Nunchucks_g16_c04.avi'],
['ParallelBars/v_ParallelBars_g08_c01.avi',
'ParallelBars/v_ParallelBars_g08_c02.avi',
'ParallelBars/v_ParallelBars_g08_c03.avi',
'ParallelBars/v_ParallelBars_g08_c04.avi',
'ParallelBars/v_ParallelBars_g08_c05.avi',
'ParallelBars/v_ParallelBars_g09_c01.avi',
'ParallelBars/v_ParallelBars_g09_c02.avi',
'ParallelBars/v_ParallelBars_g09_c03.avi',
'ParallelBars/v ParallelBars g09 c04.avi',
'ParallelBars/v_ParallelBars_g09_c05.avi',
'ParallelBars/v ParallelBars g09 c06.avi',
'ParallelBars/v ParallelBars g10 c01.avi',
'ParallelBars/v ParallelBars g10 c02.avi',
'ParallelBars/v_ParallelBars_g10_c03.avi',
'ParallelBars/v ParallelBars g10 c04.avi',
'ParallelBars/v_ParallelBars_g11_c01.avi',
'ParallelBars/v_ParallelBars_g11_c02.avi',
'ParallelBars/v_ParallelBars_g11_c03.avi',
'ParallelBars/v_ParallelBars_g11_c04.avi',
```

```
'ParallelBars/v_ParallelBars_g11_c05.avi',
'ParallelBars/v_ParallelBars_g11_c06.avi',
'ParallelBars/v_ParallelBars_g12_c01.avi',
'ParallelBars/v_ParallelBars_g12_c02.avi',
'ParallelBars/v_ParallelBars_g12_c03.avi',
'ParallelBars/v_ParallelBars_g12_c04.avi',
'ParallelBars/v ParallelBars g13 c01.avi',
'ParallelBars/v_ParallelBars_g13_c02.avi',
'ParallelBars/v ParallelBars g13 c03.avi',
'ParallelBars/v_ParallelBars_g13_c04.avi',
'ParallelBars/v ParallelBars g14 c01.avi',
'ParallelBars/v_ParallelBars_g14_c02.avi',
'ParallelBars/v_ParallelBars_g14_c03.avi',
'ParallelBars/v_ParallelBars_g14_c04.avi',
'ParallelBars/v_ParallelBars_g15_c01.avi',
'ParallelBars/v_ParallelBars_g15_c02.avi',
'ParallelBars/v_ParallelBars_g15_c03.avi',
'ParallelBars/v_ParallelBars_g15_c04.avi',
'ParallelBars/v_ParallelBars_g16_c01.avi',
'ParallelBars/v_ParallelBars_g16_c02.avi',
'ParallelBars/v_ParallelBars_g16_c03.avi',
'ParallelBars/v ParallelBars g16 c04.avi',
'ParallelBars/v_ParallelBars_g17_c01.avi',
'ParallelBars/v ParallelBars g17 c02.avi',
'ParallelBars/v ParallelBars g17 c03.avi',
'ParallelBars/v_ParallelBars_g17_c04.avi',
'ParallelBars/v_ParallelBars_g18_c01.avi',
'ParallelBars/v_ParallelBars_g18_c02.avi',
'ParallelBars/v_ParallelBars_g18_c03.avi',
'ParallelBars/v_ParallelBars_g18_c04.avi',
'ParallelBars/v_ParallelBars_g19_c01.avi'],
['PizzaTossing/v_PizzaTossing_g08_c01.avi',
'PizzaTossing/v_PizzaTossing_g08_c02.avi',
'PizzaTossing/v_PizzaTossing_g08_c03.avi',
'PizzaTossing/v_PizzaTossing_g08_c04.avi',
'PizzaTossing/v_PizzaTossing_g09_c01.avi',
'PizzaTossing/v_PizzaTossing_g09_c02.avi',
'PizzaTossing/v_PizzaTossing_g09_c03.avi',
'PizzaTossing/v PizzaTossing g09 c04.avi',
'PizzaTossing/v_PizzaTossing_g10_c01.avi',
'PizzaTossing/v PizzaTossing g10 c02.avi',
'PizzaTossing/v_PizzaTossing_g10_c03.avi',
'PizzaTossing_g10_c04.avi',
'PizzaTossing/v_PizzaTossing_g11_c01.avi',
'PizzaTossing/v_PizzaTossing_g11_c02.avi',
'PizzaTossing/v_PizzaTossing_g11_c03.avi',
'PizzaTossing/v_PizzaTossing_g11_c04.avi',
```

```
'PizzaTossing/v_PizzaTossing_g11_c05.avi',
'PizzaTossing/v_PizzaTossing_g12_c01.avi',
'PizzaTossing/v_PizzaTossing_g12_c02.avi',
'PizzaTossing/v_PizzaTossing_g12_c03.avi',
'PizzaTossing/v_PizzaTossing_g12_c04.avi',
'PizzaTossing/v_PizzaTossing_g13_c01.avi',
'PizzaTossing/v PizzaTossing g13 c02.avi',
'PizzaTossing/v_PizzaTossing_g13_c03.avi',
'PizzaTossing/v PizzaTossing g13 c04.avi',
'PizzaTossing/v PizzaTossing_g14_c01.avi',
'PizzaTossing/v PizzaTossing g14 c02.avi',
'PizzaTossing/v_PizzaTossing_g14_c03.avi',
'PizzaTossing_g14_c04.avi',
'PizzaTossing/v_PizzaTossing_g15_c01.avi',
'PizzaTossing/v_PizzaTossing_g15_c02.avi',
'PizzaTossing/v_PizzaTossing_g15_c03.avi',
'PizzaTossing/v_PizzaTossing_g15_c04.avi',
'PizzaTossing/v_PizzaTossing_g16_c01.avi',
'PizzaTossing/v_PizzaTossing_g16_c02.avi',
'PizzaTossing/v_PizzaTossing_g16_c03.avi',
'PizzaTossing/v_PizzaTossing_g16_c04.avi',
'PizzaTossing/v PizzaTossing g17 c01.avi',
'PizzaTossing/v_PizzaTossing_g17_c02.avi',
'PizzaTossing/v PizzaTossing g17 c03.avi',
'PizzaTossing/v_PizzaTossing_g17_c04.avi',
'PizzaTossing/v PizzaTossing g18 c01.avi',
'PizzaTossing/v_PizzaTossing_g18_c02.avi',
'PizzaTossing_g18_c03.avi',
'PizzaTossing/v_PizzaTossing_g18_c04.avi',
'PizzaTossing/v_PizzaTossing_g19_c01.avi',
'PizzaTossing/v_PizzaTossing_g19_c02.avi',
'PizzaTossing/v_PizzaTossing_g19_c03.avi',
'PizzaTossing/v_PizzaTossing_g19_c04.avi',
'PizzaTossing/v_PizzaTossing_g19_c05.avi'],
['PlayingCello/v_PlayingCello_g08_c01.avi',
'PlayingCello/v_PlayingCello_g08_c02.avi',
'PlayingCello/v_PlayingCello_g08_c03.avi',
'PlayingCello/v_PlayingCello_g08_c04.avi',
'PlayingCello/v PlayingCello g08 c05.avi',
'PlayingCello/v_PlayingCello_g08_c06.avi',
'PlayingCello/v PlayingCello g09 c01.avi',
'PlayingCello_v_PlayingCello_g09_c02.avi',
'PlayingCello/v_PlayingCello_g09_c03.avi',
'PlayingCello/v_PlayingCello_g09_c04.avi',
'PlayingCello/v_PlayingCello_g09_c05.avi',
'PlayingCello/v_PlayingCello_g09_c06.avi',
'PlayingCello/v_PlayingCello_g09_c07.avi',
```

```
'PlayingCello/v_PlayingCello_g10_c01.avi',
'PlayingCello/v PlayingCello g10 c02.avi',
'PlayingCello/v_PlayingCello_g10_c03.avi',
'PlayingCello/v_PlayingCello_g10_c04.avi',
'PlayingCello/v_PlayingCello_g10_c05.avi',
'PlayingCello/v_PlayingCello_g10_c06.avi',
'PlayingCello/v PlayingCello g10 c07.avi',
'PlayingCello/v_PlayingCello_g11_c01.avi',
'PlayingCello/v PlayingCello g11 c02.avi',
'PlayingCello/v PlayingCello g11 c03.avi',
'PlayingCello/v PlayingCello g11 c04.avi',
'PlayingCello_g11_c05.avi',
'PlayingCello/v PlayingCello g11 c06.avi',
'PlayingCello/v_PlayingCello_g11_c07.avi',
'PlayingCello/v PlayingCello g12 c01.avi',
'PlayingCello/v_PlayingCello_g12_c02.avi',
'PlayingCello/v_PlayingCello_g12_c03.avi',
'PlayingCello/v_PlayingCello_g12_c04.avi',
'PlayingCello/v_PlayingCello_g12_c05.avi',
'PlayingCello/v_PlayingCello_g12_c06.avi',
'PlayingCello/v_PlayingCello_g12_c07.avi',
'PlayingCello/v PlayingCello g13 c01.avi',
'PlayingCello/v_PlayingCello_g13_c02.avi',
'PlayingCello/v PlayingCello g13 c03.avi',
'PlayingCello/v PlayingCello g13 c04.avi',
'PlayingCello/v PlayingCello g13 c05.avi',
'PlayingCello/v PlayingCello g13 c06.avi',
'PlayingCello/v PlayingCello g13 c07.avi',
'PlayingCello/v_PlayingCello_g14_c01.avi',
'PlayingCello/v_PlayingCello_g14_c02.avi',
'PlayingCello/v_PlayingCello_g14_c03.avi',
'PlayingCello/v_PlayingCello_g14_c04.avi',
'PlayingCello/v_PlayingCello_g15_c01.avi',
'PlayingCello/v_PlayingCello_g15_c02.avi',
'PlayingCello/v_PlayingCello_g15_c03.avi',
'PlayingCello/v_PlayingCello_g15_c04.avi',
'PlayingCello/v PlayingCello g15 c05.avi'],
['PlayingDaf/v_PlayingDaf_g08_c01.avi',
'PlayingDaf/v_PlayingDaf_g08_c02.avi',
'PlayingDaf/v_PlayingDaf_g08_c03.avi',
'PlayingDaf/v PlayingDaf g08 c04.avi',
'PlayingDaf/v_PlayingDaf_g08_c05.avi',
'PlayingDaf/v PlayingDaf g08 c06.avi',
'PlayingDaf/v_PlayingDaf_g08_c07.avi',
'PlayingDaf/v_PlayingDaf_g09_c01.avi',
'PlayingDaf/v_PlayingDaf_g09_c02.avi',
'PlayingDaf/v_PlayingDaf_g09_c03.avi',
```

```
'PlayingDaf/v_PlayingDaf_g09_c04.avi',
'PlayingDaf/v_PlayingDaf_g09_c05.avi',
'PlayingDaf/v_PlayingDaf_g10_c01.avi',
'PlayingDaf/v_PlayingDaf_g10_c02.avi',
'PlayingDaf/v_PlayingDaf_g10_c03.avi',
'PlayingDaf/v_PlayingDaf_g10_c04.avi',
'PlayingDaf/v PlayingDaf g10 c05.avi',
'PlayingDaf/v_PlayingDaf_g10_c06.avi',
'PlayingDaf/v PlayingDaf g10 c07.avi',
'PlayingDaf/v PlayingDaf g11 c01.avi',
'PlayingDaf/v PlayingDaf g11 c02.avi',
'PlayingDaf/v_PlayingDaf_g11_c03.avi',
'PlayingDaf/v PlayingDaf g11 c04.avi',
'PlayingDaf/v_PlayingDaf_g11_c05.avi',
'PlayingDaf/v_PlayingDaf_g11_c06.avi',
'PlayingDaf/v_PlayingDaf_g12_c01.avi',
'PlayingDaf/v_PlayingDaf_g12_c02.avi',
'PlayingDaf/v_PlayingDaf_g12_c03.avi',
'PlayingDaf/v_PlayingDaf_g12_c04.avi',
'PlayingDaf/v_PlayingDaf_g12_c05.avi',
'PlayingDaf/v_PlayingDaf_g13_c01.avi',
'PlayingDaf/v PlayingDaf g13 c02.avi',
'PlayingDaf/v_PlayingDaf_g13_c03.avi',
'PlayingDaf/v PlayingDaf g13 c04.avi',
'PlayingDaf/v PlayingDaf g14 c01.avi',
'PlayingDaf/v PlayingDaf g14 c02.avi',
'PlayingDaf/v_PlayingDaf_g14_c03.avi',
'PlayingDaf_v_PlayingDaf_g14_c04.avi',
'PlayingDaf/v_PlayingDaf_g14_c05.avi',
'PlayingDaf/v_PlayingDaf_g14_c06.avi',
'PlayingDaf/v_PlayingDaf_g14_c07.avi',
'PlayingDaf/v_PlayingDaf_g15_c01.avi',
'PlayingDaf/v_PlayingDaf_g15_c02.avi',
'PlayingDaf/v_PlayingDaf_g15_c03.avi',
'PlayingDaf/v_PlayingDaf_g15_c04.avi',
'PlayingDaf/v_PlayingDaf_g15_c05.avi',
'PlayingDaf/v PlayingDaf g15 c06.avi',
'PlayingDaf/v_PlayingDaf_g15_c07.avi',
'PlayingDaf/v PlayingDaf g16 c01.avi',
'PlayingDaf/v_PlayingDaf_g16_c02.avi'],
['PlayingDhol/v PlayingDhol g08 c01.avi',
'PlayingDhol/v_PlayingDhol_g08_c02.avi',
'PlayingDhol/v_PlayingDhol_g08_c03.avi',
'PlayingDhol/v_PlayingDhol_g08_c04.avi',
'PlayingDhol/v_PlayingDhol_g08_c05.avi',
'PlayingDhol/v_PlayingDhol_g08_c06.avi',
'PlayingDhol/v_PlayingDhol_g08_c07.avi',
```

```
'PlayingDhol/v_PlayingDhol_g09_c01.avi',
 'PlayingDhol/v_PlayingDhol_g09_c02.avi',
 'PlayingDhol/v_PlayingDhol_g09_c03.avi',
 'PlayingDhol/v_PlayingDhol_g09_c04.avi',
 'PlayingDhol/v_PlayingDhol_g09_c05.avi',
 'PlayingDhol/v_PlayingDhol_g09_c06.avi',
 'PlayingDhol/v PlayingDhol g09 c07.avi',
 'PlayingDhol/v_PlayingDhol_g10_c01.avi',
 'PlayingDhol/v PlayingDhol g10 c02.avi',
 'PlayingDhol/v PlayingDhol g10 c03.avi',
 'PlayingDhol/v PlayingDhol g10 c04.avi',
 'PlayingDhol/v_PlayingDhol_g10_c05.avi',
 'PlayingDhol/v_PlayingDhol_g10_c06.avi',
 'PlayingDhol/v_PlayingDhol_g10_c07.avi',
 'PlayingDhol/v_PlayingDhol_g11_c01.avi',
 'PlayingDhol/v_PlayingDhol_g11_c02.avi',
 'PlayingDhol/v_PlayingDhol_g11_c03.avi',
 'PlayingDhol/v_PlayingDhol_g11_c04.avi',
 'PlayingDhol/v_PlayingDhol_g11_c05.avi',
 'PlayingDhol/v_PlayingDhol_g11_c06.avi',
 'PlayingDhol/v_PlayingDhol_g11_c07.avi',
 'PlayingDhol/v_PlayingDhol_g12_c01.avi',
 'PlayingDhol/v_PlayingDhol_g12_c02.avi',
 'PlayingDhol/v PlayingDhol g12 c03.avi',
 'PlayingDhol/v PlayingDhol g12 c04.avi',
 'PlayingDhol/v PlayingDhol g12 c05.avi',
 'PlayingDhol/v_PlayingDhol_g12_c06.avi',
 'PlayingDhol/v_PlayingDhol_g13_c01.avi',
 'PlayingDhol/v_PlayingDhol_g13_c02.avi',
 'PlayingDhol/v_PlayingDhol_g13_c03.avi',
 'PlayingDhol/v_PlayingDhol_g13_c04.avi',
 'PlayingDhol/v_PlayingDhol_g13_c05.avi',
 'PlayingDhol/v_PlayingDhol_g13_c06.avi',
 'PlayingDhol/v_PlayingDhol_g13_c07.avi',
 'PlayingDhol/v_PlayingDhol_g14_c01.avi',
 'PlayingDhol/v_PlayingDhol_g14_c02.avi',
 'PlayingDhol/v PlayingDhol g14 c03.avi',
 'PlayingDhol/v_PlayingDhol_g14_c04.avi',
 'PlayingDhol/v PlayingDhol g14 c05.avi',
 'PlayingDhol/v_PlayingDhol_g14_c06.avi',
 'PlayingDhol/v PlayingDhol g14 c07.avi',
 'PlayingDhol/v_PlayingDhol_g15_c01.avi',
 'PlayingDhol/v_PlayingDhol_g15_c02.avi'],
['PlayingFlute/v_PlayingFlute_g08_c01.avi',
 'PlayingFlute/v_PlayingFlute_g08_c02.avi',
 'PlayingFlute/v_PlayingFlute_g08_c03.avi',
 'PlayingFlute/v_PlayingFlute_g08_c04.avi',
```

```
'PlayingFlute/v_PlayingFlute_g08_c05.avi',
 'PlayingFlute/v PlayingFlute g08 c06.avi',
 'PlayingFlute/v_PlayingFlute_g08_c07.avi',
 'PlayingFlute/v_PlayingFlute_g09_c01.avi',
 'PlayingFlute/v_PlayingFlute_g09_c02.avi',
 'PlayingFlute/v_PlayingFlute_g09_c03.avi',
 'PlayingFlute/v PlayingFlute g09 c04.avi',
 'PlayingFlute/v_PlayingFlute_g09_c05.avi',
 'PlayingFlute/v PlayingFlute g09 c06.avi',
 'PlayingFlute/v PlayingFlute g09 c07.avi',
 'PlayingFlute/v PlayingFlute g10 c01.avi',
 'PlayingFlute/v_PlayingFlute_g10_c02.avi',
 'PlayingFlute/v PlayingFlute g10 c03.avi',
 'PlayingFlute/v_PlayingFlute_g10_c04.avi',
 'PlayingFlute/v PlayingFlute g10 c05.avi',
 'PlayingFlute/v_PlayingFlute_g10_c06.avi',
 'PlayingFlute/v_PlayingFlute_g11_c01.avi',
 'PlayingFlute/v_PlayingFlute_g11_c02.avi',
 'PlayingFlute/v_PlayingFlute_g11_c03.avi',
 'PlayingFlute/v_PlayingFlute_g11_c04.avi',
 'PlayingFlute/v_PlayingFlute_g11_c05.avi',
 'PlayingFlute/v PlayingFlute g11 c06.avi',
 'PlayingFlute/v_PlayingFlute_g12_c01.avi',
 'PlayingFlute/v PlayingFlute g12 c02.avi',
 'PlayingFlute/v PlayingFlute g12 c03.avi',
 'PlayingFlute/v PlayingFlute g12 c04.avi',
 'PlayingFlute/v PlayingFlute g12 c05.avi',
 'PlayingFlute/v_PlayingFlute_g13_c01.avi',
 'PlayingFlute/v_PlayingFlute_g13_c02.avi',
 'PlayingFlute/v_PlayingFlute_g13_c03.avi',
 'PlayingFlute/v_PlayingFlute_g13_c04.avi',
 'PlayingFlute/v_PlayingFlute_g13_c05.avi',
 'PlayingFlute/v_PlayingFlute_g14_c01.avi',
 'PlayingFlute/v_PlayingFlute_g14_c02.avi',
 'PlayingFlute/v_PlayingFlute_g14_c03.avi',
 'PlayingFlute/v_PlayingFlute_g14_c04.avi',
 'PlayingFlute/v PlayingFlute g14 c05.avi',
 'PlayingFlute/v_PlayingFlute_g14_c06.avi',
 'PlayingFlute/v PlayingFlute g15 c01.avi',
 'PlayingFlute/v PlayingFlute g15 c02.avi',
 'PlayingFlute/v PlayingFlute g15 c03.avi',
 'PlayingFlute/v_PlayingFlute_g15_c04.avi',
 'PlayingFlute/v PlayingFlute g15 c05.avi',
 'PlayingFlute/v_PlayingFlute_g15_c06.avi',
 'PlayingFlute/v_PlayingFlute_g15_c07.avi',
 'PlayingFlute/v_PlayingFlute_g16_c01.avi']
['PlayingGuitar/v_PlayingGuitar_g08_c01.avi',
```

```
'PlayingGuitar/v_PlayingGuitar_g08_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c05.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c06.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c07.avi',
'PlayingGuitar/v PlayingGuitar g09 c01.avi',
'PlayingGuitar/v_PlayingGuitar_g09_c02.avi',
'PlayingGuitar/v PlayingGuitar g09 c03.avi',
'PlayingGuitar/v_PlayingGuitar_g09_c04.avi',
'PlayingGuitar/v PlayingGuitar g10 c01.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c05.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c06.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c07.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c04.avi',
'PlayingGuitar/v PlayingGuitar g11 c05.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c06.avi',
'PlayingGuitar/v PlayingGuitar g11 c07.avi',
'PlayingGuitar/v PlayingGuitar g12 c01.avi',
'PlayingGuitar/v PlayingGuitar g12 c02.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c05.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c06.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c07.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c05.avi',
'PlayingGuitar/v PlayingGuitar g13 c06.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c07.avi',
'PlayingGuitar/v PlayingGuitar g14 c01.avi',
'PlayingGuitar/v PlayingGuitar g14 c02.avi',
'PlayingGuitar/v PlayingGuitar g14 c03.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c04.avi',
'PlayingGuitar/v PlayingGuitar g14 c05.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c06.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c07.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c02.avi',
```

```
'PlayingGuitar/v_PlayingGuitar_g15_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c04.avi'],
['PlayingPiano/v_PlayingPiano_g08_c01.avi',
'PlayingPiano/v_PlayingPiano_g08_c02.avi',
'PlayingPiano/v_PlayingPiano_g08_c03.avi',
'PlayingPiano/v PlayingPiano_g08_c04.avi',
'PlayingPiano/v PlayingPiano g09 c01.avi',
'PlayingPiano/v PlayingPiano g09 c02.avi',
'PlayingPiano/v PlayingPiano g09 c03.avi',
'PlayingPiano/v PlayingPiano g09 c04.avi',
'PlayingPiano/v PlayingPiano g10 c01.avi',
'PlayingPiano/v PlayingPiano g10 c02.avi',
'PlayingPiano/v PlayingPiano g10 c03.avi',
'PlayingPiano/v_PlayingPiano_g10_c04.avi',
'PlayingPiano/v PlayingPiano g11 c01.avi',
'PlayingPiano/v_PlayingPiano_g11_c02.avi',
'PlayingPiano/v_PlayingPiano_g11_c03.avi',
'PlayingPiano/v PlayingPiano g11 c04.avi',
'PlayingPiano/v_PlayingPiano_g12_c01.avi',
'PlayingPiano/v_PlayingPiano_g12_c02.avi',
'PlayingPiano/v_PlayingPiano_g12_c03.avi',
'PlayingPiano/v PlayingPiano g12 c04.avi',
'PlayingPiano/v_PlayingPiano_g13_c01.avi',
'PlayingPiano/v PlayingPiano g13 c02.avi',
'PlayingPiano/v PlayingPiano g13 c03.avi',
'PlayingPiano/v PlayingPiano_g13_c04.avi',
'PlayingPiano/v PlayingPiano g14 c01.avi',
'PlayingPiano/v PlayingPiano g14 c02.avi',
'PlayingPiano/v_PlayingPiano_g14_c03.avi',
'PlayingPiano/v_PlayingPiano_g14_c04.avi',
'PlayingPiano/v_PlayingPiano_g15_c01.avi',
'PlayingPiano/v_PlayingPiano_g15_c02.avi',
'PlayingPiano/v PlayingPiano g15 c03.avi',
'PlayingPiano/v_PlayingPiano_g15_c04.avi',
'PlayingPiano/v_PlayingPiano_g16_c01.avi',
'PlayingPiano/v_PlayingPiano_g16_c02.avi',
'PlayingPiano/v PlayingPiano g16 c03.avi',
'PlayingPiano/v PlayingPiano g16 c04.avi',
'PlayingPiano/v PlayingPiano g16 c05.avi',
'PlayingPiano/v PlayingPiano g16 c06.avi',
'PlayingPiano/v_PlayingPiano_g16_c07.avi',
'PlayingPiano/v_PlayingPiano_g17_c01.avi',
'PlayingPiano/v PlayingPiano g17 c02.avi',
'PlayingPiano/v_PlayingPiano_g17_c03.avi',
'PlayingPiano/v_PlayingPiano_g17_c04.avi',
'PlayingPiano/v_PlayingPiano_g17_c05.avi',
'PlayingPiano/v_PlayingPiano_g17_c06.avi',
```

```
'PlayingPiano/v_PlayingPiano_g18_c01.avi',
'PlayingPiano/v_PlayingPiano_g18_c02.avi',
'PlayingPiano/v_PlayingPiano_g18_c03.avi',
'PlayingPiano/v_PlayingPiano_g18_c04.avi',
'PlayingPiano/v_PlayingPiano_g19_c01.avi'],
['PlayingSitar/v_PlayingSitar_g08_c01.avi',
'PlayingSitar/v PlayingSitar g08 c02.avi',
'PlayingSitar/v_PlayingSitar_g08_c03.avi',
'PlayingSitar/v PlayingSitar g08 c04.avi',
'PlayingSitar/v PlayingSitar g08 c05.avi',
'PlayingSitar/v PlayingSitar g08 c06.avi',
'PlayingSitar/v_PlayingSitar_g08_c07.avi',
'PlayingSitar/v PlayingSitar g09 c01.avi',
'PlayingSitar/v_PlayingSitar_g09_c02.avi',
'PlayingSitar/v_PlayingSitar_g09_c03.avi',
'PlayingSitar/v_PlayingSitar_g09_c04.avi',
'PlayingSitar/v_PlayingSitar_g09_c05.avi',
'PlayingSitar/v_PlayingSitar_g09_c06.avi',
'PlayingSitar/v_PlayingSitar_g09_c07.avi',
'PlayingSitar/v_PlayingSitar_g10_c01.avi',
'PlayingSitar/v_PlayingSitar_g10_c02.avi',
'PlayingSitar/v PlayingSitar g10 c03.avi',
'PlayingSitar/v_PlayingSitar_g10_c04.avi',
'PlayingSitar/v PlayingSitar g10 c05.avi',
'PlayingSitar/v PlayingSitar g10 c06.avi',
'PlayingSitar/v PlayingSitar g10 c07.avi',
'PlayingSitar/v PlayingSitar g11 c01.avi',
'PlayingSitar/v_PlayingSitar_g11_c02.avi',
'PlayingSitar/v_PlayingSitar_g11_c03.avi',
'PlayingSitar/v_PlayingSitar_g11_c04.avi',
'PlayingSitar/v_PlayingSitar_g11_c05.avi',
'PlayingSitar/v_PlayingSitar_g11_c06.avi',
'PlayingSitar/v_PlayingSitar_g11_c07.avi',
'PlayingSitar/v_PlayingSitar_g12_c01.avi',
'PlayingSitar/v_PlayingSitar_g12_c02.avi',
'PlayingSitar/v_PlayingSitar_g12_c03.avi',
'PlayingSitar/v PlayingSitar g12 c04.avi',
'PlayingSitar/v PlayingSitar g13 c01.avi',
'PlayingSitar/v PlayingSitar g13 c02.avi',
'PlayingSitar/v PlayingSitar g13 c03.avi',
'PlayingSitar/v PlayingSitar g13 c04.avi',
'PlayingSitar/v_PlayingSitar_g14_c01.avi',
'PlayingSitar/v PlayingSitar g14 c02.avi',
'PlayingSitar/v_PlayingSitar_g14_c03.avi',
'PlayingSitar/v_PlayingSitar_g14_c04.avi',
'PlayingSitar/v_PlayingSitar_g14_c05.avi',
'PlayingSitar/v_PlayingSitar_g14_c06.avi',
```

```
'PlayingSitar/v_PlayingSitar_g14_c07.avi',
'PlayingSitar/v_PlayingSitar_g15_c01.avi',
'PlayingSitar/v_PlayingSitar_g15_c02.avi',
'PlayingSitar/v_PlayingSitar_g15_c03.avi',
'PlayingSitar/v_PlayingSitar_g15_c04.avi',
'PlayingSitar/v_PlayingSitar_g16_c01.avi',
'PlayingSitar/v PlayingSitar g16 c02.avi',
'PlayingSitar/v_PlayingSitar_g16_c03.avi'],
['PlayingTabla/v PlayingTabla g08 c01.avi',
'PlayingTabla/v PlayingTabla g08 c02.avi',
'PlayingTabla/v PlayingTabla g08 c03.avi',
'PlayingTabla_v_PlayingTabla_g08_c04.avi',
'PlayingTabla/v PlayingTabla g09 c01.avi',
'PlayingTabla/v_PlayingTabla_g09_c02.avi',
'PlayingTabla/v_PlayingTabla_g09_c03.avi',
'PlayingTabla/v_PlayingTabla_g09_c04.avi',
'PlayingTabla/v_PlayingTabla_g09_c05.avi',
'PlayingTabla/v_PlayingTabla_g10_c01.avi',
'PlayingTabla/v_PlayingTabla_g10_c02.avi',
'PlayingTabla/v_PlayingTabla_g10_c03.avi',
'PlayingTabla/v_PlayingTabla_g10_c04.avi',
'PlayingTabla/v PlayingTabla g10 c05.avi',
'PlayingTabla/v_PlayingTabla_g11_c01.avi',
'PlayingTabla/v PlayingTabla g11 c02.avi',
'PlayingTabla/v PlayingTabla g11 c03.avi',
'PlayingTabla/v PlayingTabla g11 c04.avi',
'PlayingTabla/v PlayingTabla g12 c01.avi',
'PlayingTabla/v_PlayingTabla_g12_c02.avi',
'PlayingTabla/v_PlayingTabla_g12_c03.avi',
'PlayingTabla/v_PlayingTabla_g12_c04.avi',
'PlayingTabla/v_PlayingTabla_g12_c05.avi',
'PlayingTabla/v_PlayingTabla_g13_c01.avi',
'PlayingTabla/v_PlayingTabla_g13_c02.avi',
'PlayingTabla/v_PlayingTabla_g13_c03.avi',
'PlayingTabla/v_PlayingTabla_g13_c04.avi',
'PlayingTabla/v_PlayingTabla_g13_c05.avi',
'PlayingTabla/v PlayingTabla g14 c01.avi',
'PlayingTabla/v_PlayingTabla_g14_c02.avi',
'PlayingTabla/v PlayingTabla g14 c03.avi',
'PlayingTabla/v PlayingTabla g14 c04.avi',
'PlayingTabla/v PlayingTabla g15 c01.avi',
'PlayingTabla/v_PlayingTabla_g15_c02.avi',
'PlayingTabla/v PlayingTabla g15 c03.avi',
'PlayingTabla/v_PlayingTabla_g15_c04.avi',
'PlayingTabla/v_PlayingTabla_g16_c01.avi',
'PlayingTabla/v_PlayingTabla_g16_c02.avi',
'PlayingTabla/v_PlayingTabla_g16_c03.avi',
```

```
'PlayingTabla/v_PlayingTabla_g16_c04.avi',
'PlayingTabla/v_PlayingTabla_g16_c05.avi',
'PlayingTabla/v_PlayingTabla_g17_c01.avi',
'PlayingTabla/v_PlayingTabla_g17_c02.avi',
'PlayingTabla/v_PlayingTabla_g17_c03.avi',
'PlayingTabla/v_PlayingTabla_g17_c04.avi',
'PlayingTabla/v PlayingTabla g18 c01.avi',
'PlayingTabla/v_PlayingTabla_g18_c02.avi',
'PlayingTabla/v PlayingTabla g18 c03.avi',
'PlayingTabla/v PlayingTabla g18 c04.avi',
'PlayingTabla/v PlayingTabla g18 c05.avi'],
['PlayingViolin/v_PlayingViolin_g08_c01.avi',
'PlayingViolin/v PlayingViolin g08 c02.avi',
'PlayingViolin/v_PlayingViolin_g08_c03.avi',
'PlayingViolin/v_PlayingViolin_g08_c04.avi',
'PlayingViolin/v_PlayingViolin_g09_c01.avi',
'PlayingViolin/v_PlayingViolin_g09_c02.avi',
'PlayingViolin/v_PlayingViolin_g09_c03.avi',
'PlayingViolin/v_PlayingViolin_g09_c04.avi',
'PlayingViolin/v_PlayingViolin_g10_c01.avi',
'PlayingViolin/v_PlayingViolin_g10_c02.avi',
'PlayingViolin/v PlayingViolin g10 c03.avi',
'PlayingViolin/v_PlayingViolin_g10_c04.avi',
'PlayingViolin/v PlayingViolin g11 c01.avi',
'PlayingViolin/v PlayingViolin g11 c02.avi',
'PlayingViolin/v PlayingViolin g11 c03.avi',
'PlayingViolin/v_PlayingViolin_g11_c04.avi',
'PlayingViolin/v_PlayingViolin_g12_c01.avi',
'PlayingViolin/v_PlayingViolin_g12_c02.avi',
'PlayingViolin/v_PlayingViolin_g12_c03.avi',
'PlayingViolin/v_PlayingViolin_g12_c04.avi',
'PlayingViolin/v_PlayingViolin_g13_c01.avi',
'PlayingViolin/v_PlayingViolin_g13_c02.avi',
'PlayingViolin/v_PlayingViolin_g13_c03.avi',
'PlayingViolin/v_PlayingViolin_g13_c04.avi',
'PlayingViolin/v_PlayingViolin_g14_c01.avi',
'PlayingViolin/v PlayingViolin g14 c02.avi',
'PlayingViolin/v_PlayingViolin_g14_c03.avi',
'PlayingViolin/v PlayingViolin g14 c04.avi',
'PlayingViolin/v PlayingViolin g15 c01.avi',
'PlayingViolin/v PlayingViolin g15 c02.avi',
'PlayingViolin/v_PlayingViolin_g15_c03.avi',
'PlayingViolin/v PlayingViolin g15 c04.avi',
'PlayingViolin/v_PlayingViolin_g16_c01.avi',
'PlayingViolin/v_PlayingViolin_g16_c02.avi',
'PlayingViolin/v_PlayingViolin_g16_c03.avi',
'PlayingViolin/v_PlayingViolin_g16_c04.avi',
```

```
'PlayingViolin/v_PlayingViolin_g17_c01.avi',
'PlayingViolin/v_PlayingViolin_g17_c02.avi',
'PlayingViolin/v_PlayingViolin_g17_c03.avi',
'PlayingViolin/v_PlayingViolin_g17_c04.avi',
'PlayingViolin/v_PlayingViolin_g18_c01.avi',
'PlayingViolin/v_PlayingViolin_g18_c02.avi',
'PlayingViolin/v PlayingViolin g18 c03.avi',
'PlayingViolin/v_PlayingViolin_g18_c04.avi',
'PlayingViolin/v PlayingViolin g19 c01.avi',
'PlayingViolin/v PlayingViolin g19 c02.avi',
'PlayingViolin/v PlayingViolin g19 c03.avi',
'PlayingViolin/v_PlayingViolin_g19_c04.avi',
'PlayingViolin/v PlayingViolin g20 c01.avi',
'PlayingViolin/v_PlayingViolin_g20_c02.avi'],
['PoleVault/v_PoleVault_g08_c01.avi',
'PoleVault/v_PoleVault_g08_c02.avi',
'PoleVault/v_PoleVault_g08_c03.avi',
'PoleVault/v_PoleVault_g08_c04.avi',
'PoleVault/v_PoleVault_g09_c01.avi',
'PoleVault/v_PoleVault_g09_c02.avi',
'PoleVault/v_PoleVault_g09_c03.avi',
'PoleVault/v PoleVault g09 c04.avi',
'PoleVault/v_PoleVault_g10_c01.avi',
'PoleVault/v PoleVault g10 c02.avi',
'PoleVault/v PoleVault g10 c03.avi',
'PoleVault/v PoleVault g10 c04.avi',
'PoleVault/v_PoleVault_g10_c05.avi',
'PoleVault/v_PoleVault_g10_c06.avi',
'PoleVault/v_PoleVault_g10_c07.avi',
'PoleVault/v_PoleVault_g11_c01.avi',
'PoleVault/v_PoleVault_g11_c02.avi',
'PoleVault/v_PoleVault_g11_c03.avi',
'PoleVault/v_PoleVault_g11_c04.avi',
'PoleVault/v_PoleVault_g11_c05.avi',
'PoleVault/v_PoleVault_g12_c01.avi',
'PoleVault/v_PoleVault_g12_c02.avi',
'PoleVault/v PoleVault g12 c03.avi',
'PoleVault/v_PoleVault_g12_c04.avi',
'PoleVault/v PoleVault g12 c05.avi',
'PoleVault/v PoleVault g12 c06.avi',
'PoleVault/v PoleVault g12 c07.avi',
'PoleVault/v_PoleVault_g13_c01.avi',
'PoleVault/v_PoleVault_g13_c02.avi',
'PoleVault/v_PoleVault_g13_c03.avi',
'PoleVault/v_PoleVault_g13_c04.avi',
'PoleVault/v_PoleVault_g13_c05.avi',
'PoleVault/v_PoleVault_g14_c01.avi',
```

```
'PoleVault/v_PoleVault_g14_c02.avi',
'PoleVault/v_PoleVault_g14_c03.avi',
'PoleVault/v_PoleVault_g14_c04.avi',
'PoleVault/v_PoleVault_g14_c05.avi',
'PoleVault/v_PoleVault_g14_c06.avi',
'PoleVault/v_PoleVault_g14_c07.avi',
'PoleVault/v PoleVault g15 c01.avi',
'PoleVault/v_PoleVault_g15_c02.avi',
'PoleVault/v PoleVault g15 c03.avi',
'PoleVault/v PoleVault_g15_c04.avi',
'PoleVault/v PoleVault g16 c01.avi',
'PoleVault/v_PoleVault_g16_c02.avi',
'PoleVault/v_PoleVault_g16_c03.avi',
'PoleVault/v_PoleVault_g16_c04.avi',
'PoleVault/v_PoleVault_g16_c05.avi',
'PoleVault/v_PoleVault_g16_c06.avi',
'PoleVault/v_PoleVault_g16_c07.avi'],
['PommelHorse/v_PommelHorse_g08_c01.avi',
'PommelHorse/v_PommelHorse_g08_c02.avi',
'PommelHorse_g08_c03.avi',
'PommelHorse/v_PommelHorse_g08_c04.avi',
'PommelHorse/v PommelHorse g09 c01.avi',
'PommelHorse_g09_c02.avi',
'PommelHorse/v PommelHorse g09 c03.avi',
'PommelHorse/v PommelHorse g09 c04.avi',
'PommelHorse/v PommelHorse g10 c01.avi',
'PommelHorse/v_PommelHorse_g10_c02.avi',
'PommelHorse/v PommelHorse g10 c03.avi',
'PommelHorse/v_PommelHorse_g10_c04.avi',
'PommelHorse/v_PommelHorse_g11_c01.avi',
'PommelHorse/v_PommelHorse_g11_c02.avi',
'PommelHorse/v_PommelHorse_g11_c03.avi',
'PommelHorse/v_PommelHorse_g11_c04.avi',
'PommelHorse_g12_c01.avi',
'PommelHorse/v_PommelHorse_g12_c02.avi',
'PommelHorse/v_PommelHorse_g12_c03.avi',
'PommelHorse/v PommelHorse g12 c04.avi',
'PommelHorse_g12_c05.avi',
'PommelHorse/v PommelHorse g12 c06.avi',
'PommelHorse/v PommelHorse g12 c07.avi',
'PommelHorse/v PommelHorse g13 c01.avi',
'PommelHorse/v_PommelHorse_g13_c02.avi',
'PommelHorse/v_PommelHorse_g13_c03.avi',
'PommelHorse/v_PommelHorse_g13_c04.avi',
'PommelHorse/v_PommelHorse_g13_c05.avi',
'PommelHorse/v_PommelHorse_g13_c06.avi',
'PommelHorse/v_PommelHorse_g13_c07.avi',
```

```
'PommelHorse/v_PommelHorse_g14_c01.avi',
             'PommelHorse/v PommelHorse g14 c02.avi',
             'PommelHorse/v_PommelHorse_g14_c03.avi',
             'PommelHorse/v_PommelHorse_g14_c04.avi',
             'PommelHorse/v_PommelHorse_g15_c01.avi',
             'PommelHorse_g15_c02.avi',
             'PommelHorse/v PommelHorse g15 c03.avi',
             'PommelHorse_g15_c04.avi',
             'PommelHorse/v PommelHorse g16 c01.avi',
             'PommelHorse/v_PommelHorse_g16_c02.avi',
             'PommelHorse/v PommelHorse g16 c03.avi',
             'PommelHorse_g16_c04.avi',
             'PommelHorse/v_PommelHorse_g17_c01.avi',
             'PommelHorse/v_PommelHorse_g17_c02.avi',
             'PommelHorse/v_PommelHorse_g17_c03.avi',
             'PommelHorse/v_PommelHorse_g17_c04.avi',
             'PommelHorse/v_PommelHorse_g17_c05.avi',
             'PommelHorse/v_PommelHorse_g17_c06.avi',
             'PommelHorse/v_PommelHorse_g18_c01.avi',
             'PommelHorse/v_PommelHorse_g18_c02.avi']], dtype=object)
    content.shape
[]: (20, 50)
[]: content = content.reshape(1000,)
     content
[]: array(['Knitting/v_Knitting_g08_c01.avi',
            'Knitting/v Knitting g08 c02.avi',
            'Knitting/v_Knitting_g08_c03.avi',
            'Knitting/v Knitting g08 c04.avi',
            'Knitting/v_Knitting_g09_c01.avi',
            'Knitting/v_Knitting_g09_c02.avi',
            'Knitting/v_Knitting_g09_c03.avi',
            'Knitting/v_Knitting_g09_c04.avi',
            'Knitting/v_Knitting_g09_c05.avi',
            'Knitting/v_Knitting_g10_c01.avi',
            'Knitting/v_Knitting_g10_c02.avi',
            'Knitting/v_Knitting_g10_c03.avi',
            'Knitting/v_Knitting_g10_c04.avi',
            'Knitting/v_Knitting_g10_c05.avi',
            'Knitting/v_Knitting_g10_c06.avi',
            'Knitting/v_Knitting_g10_c07.avi',
            'Knitting/v Knitting g11 c01.avi',
            'Knitting/v_Knitting_g11_c02.avi',
            'Knitting/v_Knitting_g11_c03.avi',
```

```
'Knitting/v_Knitting_g11_c04.avi',
'Knitting/v Knitting g11 c05.avi',
'Knitting/v_Knitting_g11_c06.avi',
'Knitting/v_Knitting_g12_c01.avi',
'Knitting/v_Knitting_g12_c02.avi',
'Knitting/v_Knitting_g12_c03.avi',
'Knitting/v Knitting g12 c04.avi',
'Knitting/v_Knitting_g13_c01.avi',
'Knitting/v Knitting g13 c02.avi',
'Knitting/v Knitting g13 c03.avi',
'Knitting/v Knitting g13 c04.avi',
'Knitting/v Knitting g13 c05.avi',
'Knitting/v Knitting g14 c01.avi',
'Knitting/v_Knitting_g14_c02.avi',
'Knitting/v_Knitting_g14_c03.avi',
'Knitting/v_Knitting_g14_c04.avi',
'Knitting/v_Knitting_g14_c05.avi',
'Knitting/v_Knitting_g15_c01.avi',
'Knitting/v_Knitting_g15_c02.avi',
'Knitting/v_Knitting_g15_c03.avi',
'Knitting/v_Knitting_g15_c04.avi',
'Knitting/v Knitting g15 c05.avi',
'Knitting/v_Knitting_g15_c06.avi',
'Knitting/v Knitting g15 c07.avi',
'Knitting/v Knitting g16 c01.avi',
'Knitting/v Knitting g16 c02.avi',
'Knitting/v_Knitting_g16_c03.avi',
'Knitting/v_Knitting_g16_c04.avi',
'Knitting/v_Knitting_g16_c05.avi',
'Knitting/v_Knitting_g17_c01.avi',
'Knitting/v_Knitting_g17_c02.avi',
'LongJump/v_LongJump_g08_c01.avi',
'LongJump/v_LongJump_g08_c02.avi',
'LongJump/v_LongJump_g08_c03.avi',
'LongJump/v_LongJump_g08_c04.avi',
'LongJump/v_LongJump_g08_c05.avi',
'LongJump/v LongJump g08 c06.avi',
'LongJump/v_LongJump_g09_c01.avi',
'LongJump/v LongJump g09 c02.avi',
'LongJump/v LongJump g09 c03.avi',
'LongJump/v LongJump g09 c04.avi',
'LongJump/v LongJump g09 c05.avi',
'LongJump/v_LongJump_g09_c06.avi',
'LongJump/v_LongJump_g10_c01.avi',
'LongJump/v_LongJump_g10_c02.avi',
'LongJump/v_LongJump_g10_c03.avi',
'LongJump/v_LongJump_g10_c04.avi',
```

```
'LongJump/v_LongJump_g10_c05.avi',
'LongJump/v LongJump g10 c06.avi',
'LongJump/v_LongJump_g10_c07.avi',
'LongJump/v_LongJump_g11_c01.avi',
'LongJump/v_LongJump_g11_c02.avi',
'LongJump/v_LongJump_g11_c03.avi',
'LongJump/v LongJump g11 c04.avi',
'LongJump/v_LongJump_g11_c05.avi',
'LongJump/v LongJump g11 c06.avi',
'LongJump/v LongJump g12 c01.avi',
'LongJump/v_LongJump_g12_c02.avi',
'LongJump/v LongJump g12 c03.avi',
'LongJump/v LongJump g12 c04.avi',
'LongJump/v_LongJump_g12_c05.avi',
'LongJump/v LongJump g12 c06.avi',
'LongJump/v_LongJump_g13_c01.avi',
'LongJump/v_LongJump_g13_c02.avi',
'LongJump/v_LongJump_g13_c03.avi',
'LongJump/v_LongJump_g13_c04.avi',
'LongJump/v_LongJump_g13_c05.avi',
'LongJump/v_LongJump_g13_c06.avi',
'LongJump/v LongJump g14 c01.avi',
'LongJump/v_LongJump_g14_c02.avi',
'LongJump/v LongJump g14 c03.avi',
'LongJump/v LongJump g14 c04.avi',
'LongJump/v LongJump g14 c05.avi',
'LongJump/v LongJump g15 c01.avi',
'LongJump/v LongJump g15 c02.avi',
'LongJump/v_LongJump_g15_c03.avi',
'LongJump/v_LongJump_g15_c04.avi',
'LongJump/v_LongJump_g15_c05.avi',
'LongJump/v_LongJump_g16_c01.avi',
'LongJump/v_LongJump_g16_c02.avi',
'LongJump/v_LongJump_g16_c03.avi', 'Lunges/v_Lunges_g08_c01.avi',
'Lunges/v_Lunges_g08_c02.avi', 'Lunges/v_Lunges_g08_c03.avi',
'Lunges/v_Lunges_g08_c04.avi', 'Lunges/v_Lunges_g09_c01.avi',
'Lunges/v Lunges g09 c02.avi', 'Lunges/v Lunges g09 c03.avi',
'Lunges/v_Lunges_g09_c04.avi', 'Lunges/v_Lunges_g10_c01.avi',
'Lunges/v Lunges g10 c02.avi', 'Lunges/v Lunges g10 c03.avi',
'Lunges/v Lunges g10 c04.avi', 'Lunges/v Lunges g10 c05.avi',
'Lunges/v Lunges g10 c06.avi', 'Lunges/v Lunges g11 c01.avi',
'Lunges/v_Lunges_g11_c02.avi', 'Lunges/v_Lunges_g11_c03.avi',
'Lunges/v Lunges g11 c04.avi', 'Lunges/v Lunges g11 c05.avi',
'Lunges/v_Lunges_g11_c06.avi', 'Lunges/v_Lunges_g11_c07.avi',
'Lunges/v_Lunges_g12_c01.avi', 'Lunges/v_Lunges_g12_c02.avi',
'Lunges/v_Lunges_g12_c03.avi', 'Lunges/v_Lunges_g12_c04.avi',
'Lunges/v_Lunges_g12_c05.avi', 'Lunges/v_Lunges_g13_c01.avi',
```

```
'Lunges/v_Lunges_g13_c02.avi', 'Lunges/v_Lunges_g13_c03.avi',
'Lunges/v_Lunges_g13_c04.avi',
                               'Lunges/v_Lunges_g13_c05.avi',
'Lunges/v_Lunges_g13_c06.avi', 'Lunges/v_Lunges_g14_c01.avi',
'Lunges/v_Lunges_g14_c02.avi', 'Lunges/v_Lunges_g14_c03.avi',
'Lunges/v_Lunges_g14_c04.avi', 'Lunges/v_Lunges_g14_c05.avi',
'Lunges/v_Lunges_g14_c06.avi', 'Lunges/v_Lunges_g14_c07.avi',
'Lunges/v Lunges g15 c01.avi', 'Lunges/v Lunges g15 c02.avi',
'Lunges/v_Lunges_g15_c03.avi', 'Lunges/v_Lunges_g15_c04.avi',
'Lunges/v Lunges g16 c01.avi', 'Lunges/v Lunges g16 c02.avi',
'Lunges/v Lunges g16 c03.avi', 'Lunges/v Lunges g16 c04.avi',
'Lunges/v Lunges g17 c01.avi', 'Lunges/v Lunges g17 c02.avi',
'Lunges/v Lunges g17 c03.avi',
'MilitaryParade/v MilitaryParade g08 c01.avi',
'MilitaryParade/v_MilitaryParade_g08_c02.avi',
'MilitaryParade/v_MilitaryParade_g08_c03.avi',
'MilitaryParade/v_MilitaryParade_g08_c04.avi',
'MilitaryParade/v_MilitaryParade_g08_c05.avi',
'MilitaryParade/v_MilitaryParade_g09_c01.avi',
'MilitaryParade/v_MilitaryParade_g09_c02.avi',
'MilitaryParade/v_MilitaryParade_g09_c03.avi',
'MilitaryParade/v_MilitaryParade_g09_c04.avi',
'MilitaryParade/v MilitaryParade g09 c05.avi',
'MilitaryParade/v_MilitaryParade_g09_c06.avi',
'MilitaryParade/v MilitaryParade g09 c07.avi',
'MilitaryParade/v MilitaryParade g10 c01.avi',
'MilitaryParade/v MilitaryParade g10 c02.avi',
'MilitaryParade/v_MilitaryParade_g10_c03.avi',
'MilitaryParade/v_MilitaryParade_g10_c04.avi',
'MilitaryParade/v_MilitaryParade_g10_c05.avi',
'MilitaryParade/v_MilitaryParade_g11_c01.avi',
'MilitaryParade/v_MilitaryParade_g11_c02.avi',
'MilitaryParade/v_MilitaryParade_g11_c03.avi',
'MilitaryParade/v_MilitaryParade_g11_c04.avi',
'MilitaryParade/v_MilitaryParade_g11_c05.avi',
'MilitaryParade/v_MilitaryParade_g12_c01.avi',
'MilitaryParade/v_MilitaryParade_g12_c02.avi',
'MilitaryParade/v MilitaryParade g12 c03.avi',
'MilitaryParade/v_MilitaryParade_g12_c04.avi',
'MilitaryParade/v MilitaryParade g12 c05.avi',
'MilitaryParade/v MilitaryParade g13 c01.avi',
'MilitaryParade/v MilitaryParade g13 c02.avi',
'MilitaryParade/v_MilitaryParade_g13_c03.avi',
'MilitaryParade/v MilitaryParade g13 c04.avi',
'MilitaryParade/v_MilitaryParade_g14_c01.avi',
'MilitaryParade/v_MilitaryParade_g14_c02.avi',
'MilitaryParade/v_MilitaryParade_g14_c03.avi',
'MilitaryParade/v_MilitaryParade_g14_c04.avi',
```

```
'MilitaryParade/v_MilitaryParade_g14_c05.avi',
'MilitaryParade/v_MilitaryParade_g15_c01.avi',
'MilitaryParade/v_MilitaryParade_g15_c02.avi',
'MilitaryParade/v_MilitaryParade_g15_c03.avi',
'MilitaryParade/v_MilitaryParade_g15_c04.avi',
'MilitaryParade/v_MilitaryParade_g15_c05.avi',
'MilitaryParade/v MilitaryParade g15 c06.avi',
'MilitaryParade/v_MilitaryParade_g15_c07.avi',
'MilitaryParade/v MilitaryParade g16 c01.avi',
'MilitaryParade/v MilitaryParade g16 c02.avi',
'MilitaryParade/v MilitaryParade g16 c03.avi',
'MilitaryParade/v_MilitaryParade_g16_c04.avi',
'MilitaryParade/v MilitaryParade g17 c01.avi',
'MilitaryParade/v_MilitaryParade_g17_c02.avi',
'MilitaryParade/v MilitaryParade g17 c03.avi',
'Mixing/v_Mixing_g08_c01.avi', 'Mixing/v_Mixing_g08_c02.avi',
'Mixing/v_Mixing_g08_c03.avi', 'Mixing/v_Mixing_g08_c04.avi',
'Mixing/v_Mixing_g08_c05.avi', 'Mixing/v_Mixing_g09_c01.avi',
'Mixing/v_Mixing_g09_c02.avi', 'Mixing/v_Mixing_g09_c03.avi',
'Mixing/v_Mixing_g09_c04.avi', 'Mixing/v_Mixing_g09_c05.avi',
'Mixing/v_Mixing_g09_c06.avi', 'Mixing/v_Mixing_g09_c07.avi',
'Mixing/v Mixing g10 c01.avi', 'Mixing/v Mixing g10 c02.avi',
'Mixing/v_Mixing_g10_c03.avi', 'Mixing/v_Mixing_g10_c04.avi',
'Mixing/v Mixing g10 c05.avi', 'Mixing/v Mixing g11 c01.avi',
'Mixing/v Mixing g11 c02.avi', 'Mixing/v Mixing g11 c03.avi',
'Mixing/v Mixing g11 c04.avi', 'Mixing/v Mixing g11 c05.avi',
'Mixing/v_Mixing_g11_c06.avi', 'Mixing/v_Mixing_g11_c07.avi',
'Mixing/v Mixing g12 c01.avi', 'Mixing/v Mixing g12 c02.avi',
'Mixing/v_Mixing_g12_c03.avi', 'Mixing/v_Mixing_g12_c04.avi',
'Mixing/v_Mixing_g12_c05.avi', 'Mixing/v_Mixing_g12_c06.avi',
'Mixing/v_Mixing_g12_c07.avi', 'Mixing/v_Mixing_g13_c01.avi',
'Mixing/v_Mixing_g13_c02.avi', 'Mixing/v_Mixing_g13_c03.avi',
'Mixing/v Mixing_g13_c04.avi', 'Mixing/v_Mixing_g13_c05.avi',
'Mixing/v_Mixing_g13_c06.avi', 'Mixing/v_Mixing_g14_c01.avi',
'Mixing/v_Mixing_g14_c02.avi', 'Mixing/v_Mixing_g14_c03.avi',
'Mixing/v_Mixing_g14_c04.avi', 'Mixing/v_Mixing_g14_c05.avi',
'Mixing/v Mixing g14 c06.avi', 'Mixing/v Mixing g14 c07.avi',
'Mixing/v_Mixing_g15_c01.avi', 'Mixing/v_Mixing_g15_c02.avi',
'Mixing/v Mixing g15 c03.avi', 'Mixing/v Mixing g15 c04.avi',
'Mixing/v Mixing g15 c05.avi', 'Mixing/v Mixing g15 c06.avi',
'MoppingFloor/v MoppingFloor g08 c01.avi',
'MoppingFloor/v_MoppingFloor_g08_c02.avi',
'MoppingFloor/v MoppingFloor g08 c03.avi',
'MoppingFloor/v_MoppingFloor_g08_c04.avi',
'MoppingFloor/v_MoppingFloor_g09_c01.avi',
'MoppingFloor/v_MoppingFloor_g09_c02.avi',
'MoppingFloor/v_MoppingFloor_g09_c03.avi',
```

```
'MoppingFloor/v_MoppingFloor_g09_c04.avi',
'MoppingFloor/v_MoppingFloor_g10_c01.avi',
'MoppingFloor/v_MoppingFloor_g10_c02.avi',
'MoppingFloor/v_MoppingFloor_g10_c03.avi',
'MoppingFloor/v_MoppingFloor_g10_c04.avi',
'MoppingFloor/v_MoppingFloor_g11_c01.avi',
'MoppingFloor/v MoppingFloor g11 c02.avi',
'MoppingFloor/v_MoppingFloor_g11_c03.avi',
'MoppingFloor/v MoppingFloor g11 c04.avi',
'MoppingFloor/v_MoppingFloor_g12_c01.avi',
'MoppingFloor/v MoppingFloor g12 c02.avi',
'MoppingFloor/v_MoppingFloor_g12_c03.avi',
'MoppingFloor/v MoppingFloor g12 c04.avi',
'MoppingFloor/v_MoppingFloor_g13_c01.avi',
'MoppingFloor/v MoppingFloor g13 c02.avi',
'MoppingFloor/v_MoppingFloor_g13_c03.avi',
'MoppingFloor/v_MoppingFloor_g13_c04.avi',
'MoppingFloor/v MoppingFloor g14 c01.avi',
'MoppingFloor/v_MoppingFloor_g14_c02.avi',
'MoppingFloor/v_MoppingFloor_g14_c03.avi',
'MoppingFloor/v_MoppingFloor_g14_c04.avi',
'MoppingFloor/v MoppingFloor g15 c01.avi',
'MoppingFloor/v_MoppingFloor_g15_c02.avi',
'MoppingFloor/v MoppingFloor g15 c03.avi',
'MoppingFloor/v MoppingFloor g15 c04.avi',
'MoppingFloor/v MoppingFloor g16 c01.avi',
'MoppingFloor/v MoppingFloor g16 c02.avi',
'MoppingFloor/v MoppingFloor g16 c03.avi',
'MoppingFloor/v_MoppingFloor_g16_c04.avi',
'MoppingFloor/v_MoppingFloor_g17_c01.avi',
'MoppingFloor/v_MoppingFloor_g17_c02.avi',
'MoppingFloor/v_MoppingFloor_g17_c03.avi',
'MoppingFloor/v_MoppingFloor_g17_c04.avi',
'MoppingFloor/v_MoppingFloor_g17_c05.avi',
'MoppingFloor/v_MoppingFloor_g17_c06.avi',
'MoppingFloor/v_MoppingFloor_g18_c01.avi',
'MoppingFloor/v MoppingFloor g18 c02.avi',
'MoppingFloor/v_MoppingFloor_g18_c03.avi',
'MoppingFloor/v MoppingFloor g18 c04.avi',
'MoppingFloor/v MoppingFloor g18 c05.avi',
'MoppingFloor/v MoppingFloor g18 c06.avi',
'MoppingFloor/v_MoppingFloor_g19_c01.avi',
'MoppingFloor/v MoppingFloor g19 c02.avi',
'Nunchucks/v_Nunchucks_g08_c01.avi',
'Nunchucks/v_Nunchucks_g08_c02.avi',
'Nunchucks/v_Nunchucks_g08_c03.avi',
'Nunchucks/v_Nunchucks_g08_c04.avi',
```

```
'Nunchucks/v_Nunchucks_g08_c05.avi',
'Nunchucks/v_Nunchucks_g08_c06.avi',
'Nunchucks/v_Nunchucks_g08_c07.avi',
'Nunchucks/v_Nunchucks_g09_c01.avi',
'Nunchucks/v_Nunchucks_g09_c02.avi',
'Nunchucks/v_Nunchucks_g09_c03.avi',
'Nunchucks/v Nunchucks g09 c04.avi',
'Nunchucks/v_Nunchucks_g09_c05.avi',
'Nunchucks/v Nunchucks g10 c01.avi',
'Nunchucks/v Nunchucks g10 c02.avi',
'Nunchucks/v_Nunchucks_g10_c03.avi',
'Nunchucks/v_Nunchucks_g10_c04.avi',
'Nunchucks/v_Nunchucks_g10_c05.avi',
'Nunchucks/v_Nunchucks_g10_c06.avi',
'Nunchucks/v_Nunchucks_g11_c01.avi',
'Nunchucks/v_Nunchucks_g11_c02.avi',
'Nunchucks/v_Nunchucks_g11_c03.avi',
'Nunchucks/v_Nunchucks_g11_c04.avi',
'Nunchucks/v_Nunchucks_g11_c05.avi',
'Nunchucks/v_Nunchucks_g11_c06.avi',
'Nunchucks/v_Nunchucks_g12_c01.avi',
'Nunchucks/v Nunchucks g12 c02.avi',
'Nunchucks/v_Nunchucks_g12_c03.avi',
'Nunchucks/v Nunchucks g12 c04.avi',
'Nunchucks/v Nunchucks g12 c05.avi',
'Nunchucks/v Nunchucks g13 c01.avi',
'Nunchucks/v_Nunchucks_g13_c02.avi',
'Nunchucks/v_Nunchucks_g13_c03.avi',
'Nunchucks/v_Nunchucks_g13_c04.avi',
'Nunchucks/v_Nunchucks_g13_c05.avi',
'Nunchucks/v_Nunchucks_g13_c06.avi',
'Nunchucks/v_Nunchucks_g13_c07.avi',
'Nunchucks/v_Nunchucks_g14_c01.avi',
'Nunchucks/v_Nunchucks_g14_c02.avi',
'Nunchucks/v_Nunchucks_g14_c03.avi',
'Nunchucks/v_Nunchucks_g14_c04.avi',
'Nunchucks/v Nunchucks g15 c01.avi',
'Nunchucks/v_Nunchucks_g15_c02.avi',
'Nunchucks/v Nunchucks g15 c03.avi',
'Nunchucks/v Nunchucks g15 c04.avi',
'Nunchucks/v Nunchucks g15 c05.avi',
'Nunchucks/v_Nunchucks_g15_c06.avi',
'Nunchucks/v Nunchucks g16 c01.avi',
'Nunchucks/v_Nunchucks_g16_c02.avi',
'Nunchucks/v_Nunchucks_g16_c03.avi',
'Nunchucks/v_Nunchucks_g16_c04.avi',
'ParallelBars/v_ParallelBars_g08_c01.avi',
```

```
'ParallelBars/v_ParallelBars_g08_c02.avi',
'ParallelBars/v_ParallelBars_g08_c03.avi',
'ParallelBars/v_ParallelBars_g08_c04.avi',
'ParallelBars/v_ParallelBars_g08_c05.avi',
'ParallelBars/v_ParallelBars_g09_c01.avi',
'ParallelBars/v_ParallelBars_g09_c02.avi',
'ParallelBars/v ParallelBars g09 c03.avi',
'ParallelBars/v_ParallelBars_g09_c04.avi',
'ParallelBars/v ParallelBars g09 c05.avi',
'ParallelBars/v_ParallelBars_g09_c06.avi',
'ParallelBars/v ParallelBars g10 c01.avi',
'ParallelBars/v_ParallelBars_g10_c02.avi',
'ParallelBars/v_ParallelBars_g10_c03.avi',
'ParallelBars/v_ParallelBars_g10_c04.avi',
'ParallelBars/v_ParallelBars_g11_c01.avi',
'ParallelBars/v_ParallelBars_g11_c02.avi',
'ParallelBars/v_ParallelBars_g11_c03.avi',
'ParallelBars/v_ParallelBars_g11_c04.avi',
'ParallelBars/v_ParallelBars_g11_c05.avi',
'ParallelBars/v_ParallelBars_g11_c06.avi',
'ParallelBars/v_ParallelBars_g12_c01.avi',
'ParallelBars/v ParallelBars g12 c02.avi',
'ParallelBars/v_ParallelBars_g12_c03.avi',
'ParallelBars/v ParallelBars g12 c04.avi',
'ParallelBars/v ParallelBars g13 c01.avi',
'ParallelBars/v ParallelBars g13 c02.avi',
'ParallelBars/v_ParallelBars_g13_c03.avi',
'ParallelBars/v ParallelBars g13 c04.avi',
'ParallelBars/v_ParallelBars_g14_c01.avi',
'ParallelBars/v_ParallelBars_g14_c02.avi',
'ParallelBars/v_ParallelBars_g14_c03.avi',
'ParallelBars/v_ParallelBars_g14_c04.avi',
'ParallelBars/v_ParallelBars_g15_c01.avi',
'ParallelBars/v_ParallelBars_g15_c02.avi',
'ParallelBars/v_ParallelBars_g15_c03.avi',
'ParallelBars/v_ParallelBars_g15_c04.avi',
'ParallelBars/v ParallelBars g16 c01.avi',
'ParallelBars/v_ParallelBars_g16_c02.avi',
'ParallelBars/v ParallelBars g16 c03.avi',
'ParallelBars/v_ParallelBars_g16_c04.avi',
'ParallelBars/v ParallelBars g17 c01.avi',
'ParallelBars/v_ParallelBars_g17_c02.avi',
'ParallelBars/v_ParallelBars_g17_c03.avi',
'ParallelBars/v_ParallelBars_g17_c04.avi',
'ParallelBars/v_ParallelBars_g18_c01.avi',
'ParallelBars/v_ParallelBars_g18_c02.avi',
'ParallelBars/v_ParallelBars_g18_c03.avi',
```

```
'ParallelBars/v_ParallelBars_g18_c04.avi',
'ParallelBars/v ParallelBars g19 c01.avi',
'PizzaTossing/v_PizzaTossing_g08_c01.avi',
'PizzaTossing/v_PizzaTossing_g08_c02.avi',
'PizzaTossing/v_PizzaTossing_g08_c03.avi',
'PizzaTossing/v_PizzaTossing_g08_c04.avi',
'PizzaTossing/v_PizzaTossing_g09_c01.avi',
'PizzaTossing/v_PizzaTossing_g09_c02.avi',
'PizzaTossing/v PizzaTossing g09 c03.avi',
'PizzaTossing/v_PizzaTossing_g09_c04.avi',
'PizzaTossing/v PizzaTossing g10 c01.avi',
'PizzaTossing/v_PizzaTossing_g10_c02.avi',
'PizzaTossing/v_PizzaTossing_g10_c03.avi',
'PizzaTossing/v_PizzaTossing_g10_c04.avi',
'PizzaTossing/v_PizzaTossing_g11_c01.avi',
'PizzaTossing/v_PizzaTossing_g11_c02.avi',
'PizzaTossing/v_PizzaTossing_g11_c03.avi',
'PizzaTossing/v_PizzaTossing_g11_c04.avi',
'PizzaTossing/v_PizzaTossing_g11_c05.avi',
'PizzaTossing/v_PizzaTossing_g12_c01.avi',
'PizzaTossing/v_PizzaTossing_g12_c02.avi',
'PizzaTossing/v PizzaTossing g12 c03.avi',
'PizzaTossing/v_PizzaTossing_g12_c04.avi',
'PizzaTossing/v PizzaTossing g13 c01.avi',
'PizzaTossing/v PizzaTossing g13 c02.avi',
'PizzaTossing/v PizzaTossing g13 c03.avi',
'PizzaTossing/v_PizzaTossing_g13_c04.avi',
'PizzaTossing/v_PizzaTossing_g14_c01.avi',
'PizzaTossing/v_PizzaTossing_g14_c02.avi',
'PizzaTossing/v_PizzaTossing_g14_c03.avi',
'PizzaTossing/v_PizzaTossing_g14_c04.avi',
'PizzaTossing/v_PizzaTossing_g15_c01.avi',
'PizzaTossing/v_PizzaTossing_g15_c02.avi',
'PizzaTossing/v_PizzaTossing_g15_c03.avi',
'PizzaTossing/v_PizzaTossing_g15_c04.avi',
'PizzaTossing/v_PizzaTossing_g16_c01.avi',
'PizzaTossing/v_PizzaTossing_g16_c02.avi',
'PizzaTossing/v_PizzaTossing_g16_c03.avi',
'PizzaTossing/v PizzaTossing g16 c04.avi',
'PizzaTossing/v_PizzaTossing_g17_c01.avi',
'PizzaTossing/v PizzaTossing g17 c02.avi',
'PizzaTossing/v_PizzaTossing_g17_c03.avi',
'PizzaTossing/v_PizzaTossing_g17_c04.avi',
'PizzaTossing/v_PizzaTossing_g18_c01.avi',
'PizzaTossing/v_PizzaTossing_g18_c02.avi',
'PizzaTossing/v_PizzaTossing_g18_c03.avi',
'PizzaTossing/v_PizzaTossing_g18_c04.avi',
```

```
'PizzaTossing/v_PizzaTossing_g19_c01.avi',
'PizzaTossing/v PizzaTossing g19 c02.avi',
'PizzaTossing/v_PizzaTossing_g19_c03.avi',
'PizzaTossing/v_PizzaTossing_g19_c04.avi',
'PizzaTossing/v_PizzaTossing_g19_c05.avi',
'PlayingCello/v_PlayingCello_g08_c01.avi',
'PlayingCello/v PlayingCello g08 c02.avi',
'PlayingCello/v_PlayingCello_g08_c03.avi',
'PlayingCello/v PlayingCello g08 c04.avi',
'PlayingCello/v PlayingCello g08 c05.avi',
'PlayingCello/v PlayingCello g08 c06.avi',
'PlayingCello/v_PlayingCello_g09_c01.avi',
'PlayingCello/v PlayingCello g09 c02.avi',
'PlayingCello/v_PlayingCello_g09_c03.avi',
'PlayingCello/v_PlayingCello_g09_c04.avi',
'PlayingCello/v_PlayingCello_g09_c05.avi',
'PlayingCello/v_PlayingCello_g09_c06.avi',
'PlayingCello/v_PlayingCello_g09_c07.avi',
'PlayingCello/v_PlayingCello_g10_c01.avi',
'PlayingCello/v_PlayingCello_g10_c02.avi',
'PlayingCello/v_PlayingCello_g10_c03.avi',
'PlayingCello/v PlayingCello g10 c04.avi',
'PlayingCello/v_PlayingCello_g10_c05.avi',
'PlayingCello/v PlayingCello g10 c06.avi',
'PlayingCello/v PlayingCello g10 c07.avi',
'PlayingCello/v PlayingCello g11 c01.avi',
'PlayingCello/v_PlayingCello_g11_c02.avi',
'PlayingCello/v_PlayingCello_g11_c03.avi',
'PlayingCello/v_PlayingCello_g11_c04.avi',
'PlayingCello/v_PlayingCello_g11_c05.avi',
'PlayingCello/v_PlayingCello_g11_c06.avi',
'PlayingCello/v_PlayingCello_g11_c07.avi',
'PlayingCello/v_PlayingCello_g12_c01.avi',
'PlayingCello/v_PlayingCello_g12_c02.avi',
'PlayingCello/v_PlayingCello_g12_c03.avi',
'PlayingCello/v_PlayingCello_g12_c04.avi',
'PlayingCello/v PlayingCello g12 c05.avi',
'PlayingCello/v_PlayingCello_g12_c06.avi',
'PlayingCello/v PlayingCello g12 c07.avi',
'PlayingCello/v PlayingCello g13 c01.avi',
'PlayingCello/v PlayingCello g13 c02.avi',
'PlayingCello/v_PlayingCello_g13_c03.avi',
'PlayingCello/v_PlayingCello_g13_c04.avi',
'PlayingCello/v_PlayingCello_g13_c05.avi',
'PlayingCello/v_PlayingCello_g13_c06.avi',
'PlayingCello/v_PlayingCello_g13_c07.avi',
'PlayingCello/v_PlayingCello_g14_c01.avi',
```

```
'PlayingCello/v_PlayingCello_g14_c02.avi',
'PlayingCello/v_PlayingCello_g14_c03.avi',
'PlayingCello/v_PlayingCello_g14_c04.avi',
'PlayingCello/v_PlayingCello_g15_c01.avi',
'PlayingCello/v_PlayingCello_g15_c02.avi',
'PlayingCello/v_PlayingCello_g15_c03.avi',
'PlayingCello/v PlayingCello g15 c04.avi',
'PlayingCello/v_PlayingCello_g15_c05.avi',
'PlayingDaf/v PlayingDaf g08 c01.avi',
'PlayingDaf/v_PlayingDaf_g08_c02.avi',
'PlayingDaf/v PlayingDaf g08 c03.avi',
'PlayingDaf/v_PlayingDaf_g08_c04.avi',
'PlayingDaf/v_PlayingDaf_g08_c05.avi',
'PlayingDaf/v_PlayingDaf_g08_c06.avi',
'PlayingDaf/v_PlayingDaf_g08_c07.avi',
'PlayingDaf/v_PlayingDaf_g09_c01.avi',
'PlayingDaf/v_PlayingDaf_g09_c02.avi',
'PlayingDaf/v_PlayingDaf_g09_c03.avi',
'PlayingDaf/v_PlayingDaf_g09_c04.avi',
'PlayingDaf/v_PlayingDaf_g09_c05.avi',
'PlayingDaf/v_PlayingDaf_g10_c01.avi',
'PlayingDaf/v PlayingDaf g10 c02.avi',
'PlayingDaf/v_PlayingDaf_g10_c03.avi',
'PlayingDaf/v PlayingDaf g10 c04.avi',
'PlayingDaf/v PlayingDaf g10 c05.avi',
'PlayingDaf/v PlayingDaf g10 c06.avi',
'PlayingDaf/v_PlayingDaf_g10_c07.avi',
'PlayingDaf/v_PlayingDaf_g11_c01.avi',
'PlayingDaf/v_PlayingDaf_g11_c02.avi',
'PlayingDaf/v_PlayingDaf_g11_c03.avi',
'PlayingDaf/v_PlayingDaf_g11_c04.avi',
'PlayingDaf/v_PlayingDaf_g11_c05.avi',
'PlayingDaf/v_PlayingDaf_g11_c06.avi',
'PlayingDaf/v_PlayingDaf_g12_c01.avi',
'PlayingDaf/v_PlayingDaf_g12_c02.avi',
'PlayingDaf/v_PlayingDaf_g12_c03.avi',
'PlayingDaf/v PlayingDaf g12 c04.avi',
'PlayingDaf/v_PlayingDaf_g12_c05.avi',
'PlayingDaf/v PlayingDaf g13 c01.avi',
'PlayingDaf/v_PlayingDaf_g13_c02.avi',
'PlayingDaf/v PlayingDaf g13 c03.avi',
'PlayingDaf/v_PlayingDaf_g13_c04.avi',
'PlayingDaf/v PlayingDaf g14 c01.avi',
'PlayingDaf/v_PlayingDaf_g14_c02.avi',
'PlayingDaf/v_PlayingDaf_g14_c03.avi',
'PlayingDaf/v_PlayingDaf_g14_c04.avi',
'PlayingDaf/v_PlayingDaf_g14_c05.avi',
```

```
'PlayingDaf/v_PlayingDaf_g14_c06.avi',
'PlayingDaf/v_PlayingDaf_g14_c07.avi',
'PlayingDaf/v_PlayingDaf_g15_c01.avi',
'PlayingDaf/v_PlayingDaf_g15_c02.avi',
'PlayingDaf/v_PlayingDaf_g15_c03.avi',
'PlayingDaf/v_PlayingDaf_g15_c04.avi',
'PlayingDaf/v PlayingDaf g15 c05.avi',
'PlayingDaf/v_PlayingDaf_g15_c06.avi',
'PlayingDaf/v PlayingDaf g15 c07.avi',
'PlayingDaf/v PlayingDaf g16 c01.avi',
'PlayingDaf/v PlayingDaf g16 c02.avi',
'PlayingDhol/v_PlayingDhol_g08_c01.avi',
'PlayingDhol/v PlayingDhol g08 c02.avi',
'PlayingDhol/v_PlayingDhol_g08_c03.avi',
'PlayingDhol/v_PlayingDhol_g08_c04.avi',
'PlayingDhol/v_PlayingDhol_g08_c05.avi',
'PlayingDhol/v_PlayingDhol_g08_c06.avi',
'PlayingDhol/v_PlayingDhol_g08_c07.avi',
'PlayingDhol/v_PlayingDhol_g09_c01.avi',
'PlayingDhol/v_PlayingDhol_g09_c02.avi',
'PlayingDhol/v_PlayingDhol_g09_c03.avi',
'PlayingDhol/v PlayingDhol g09 c04.avi',
'PlayingDhol/v_PlayingDhol_g09_c05.avi',
'PlayingDhol/v PlayingDhol g09 c06.avi',
'PlayingDhol/v PlayingDhol g09 c07.avi',
'PlayingDhol/v PlayingDhol g10 c01.avi',
'PlayingDhol/v_PlayingDhol_g10_c02.avi',
'PlayingDhol/v PlayingDhol g10 c03.avi',
'PlayingDhol/v_PlayingDhol_g10_c04.avi',
'PlayingDhol/v_PlayingDhol_g10_c05.avi',
'PlayingDhol/v_PlayingDhol_g10_c06.avi',
'PlayingDhol/v_PlayingDhol_g10_c07.avi',
'PlayingDhol/v_PlayingDhol_g11_c01.avi',
'PlayingDhol/v_PlayingDhol_g11_c02.avi',
'PlayingDhol/v_PlayingDhol_g11_c03.avi',
'PlayingDhol/v_PlayingDhol_g11_c04.avi',
'PlayingDhol/v PlayingDhol g11 c05.avi',
'PlayingDhol/v_PlayingDhol_g11_c06.avi',
'PlayingDhol/v PlayingDhol g11 c07.avi',
'PlayingDhol/v PlayingDhol g12 c01.avi',
'PlayingDhol/v PlayingDhol g12 c02.avi',
'PlayingDhol/v_PlayingDhol_g12_c03.avi',
'PlayingDhol/v_PlayingDhol_g12_c04.avi',
'PlayingDhol/v_PlayingDhol_g12_c05.avi',
'PlayingDhol/v_PlayingDhol_g12_c06.avi',
'PlayingDhol/v_PlayingDhol_g13_c01.avi',
'PlayingDhol/v_PlayingDhol_g13_c02.avi',
```

```
'PlayingDhol/v_PlayingDhol_g13_c03.avi',
'PlayingDhol/v_PlayingDhol_g13_c04.avi',
'PlayingDhol/v_PlayingDhol_g13_c05.avi',
'PlayingDhol/v_PlayingDhol_g13_c06.avi',
'PlayingDhol/v_PlayingDhol_g13_c07.avi',
'PlayingDhol/v_PlayingDhol_g14_c01.avi',
'PlayingDhol/v PlayingDhol g14 c02.avi',
'PlayingDhol/v_PlayingDhol_g14_c03.avi',
'PlayingDhol/v PlayingDhol g14 c04.avi',
'PlayingDhol/v PlayingDhol g14 c05.avi',
'PlayingDhol/v PlayingDhol g14 c06.avi',
'PlayingDhol/v_PlayingDhol_g14_c07.avi',
'PlayingDhol/v_PlayingDhol_g15_c01.avi',
'PlayingDhol/v_PlayingDhol_g15_c02.avi',
'PlayingFlute/v PlayingFlute g08 c01.avi',
'PlayingFlute/v_PlayingFlute_g08_c02.avi',
'PlayingFlute/v_PlayingFlute_g08_c03.avi',
'PlayingFlute/v_PlayingFlute_g08_c04.avi',
'PlayingFlute/v_PlayingFlute_g08_c05.avi',
'PlayingFlute/v_PlayingFlute_g08_c06.avi',
'PlayingFlute/v_PlayingFlute_g08_c07.avi',
'PlayingFlute/v PlayingFlute g09 c01.avi',
'PlayingFlute/v_PlayingFlute_g09_c02.avi',
'PlayingFlute/v PlayingFlute g09 c03.avi',
'PlayingFlute/v PlayingFlute g09 c04.avi',
'PlayingFlute/v PlayingFlute g09 c05.avi',
'PlayingFlute/v_PlayingFlute_g09_c06.avi',
'PlayingFlute/v PlayingFlute g09 c07.avi',
'PlayingFlute/v_PlayingFlute_g10_c01.avi',
'PlayingFlute/v_PlayingFlute_g10_c02.avi',
'PlayingFlute/v_PlayingFlute_g10_c03.avi',
'PlayingFlute/v_PlayingFlute_g10_c04.avi',
'PlayingFlute/v_PlayingFlute_g10_c05.avi',
'PlayingFlute/v_PlayingFlute_g10_c06.avi',
'PlayingFlute/v_PlayingFlute_g11_c01.avi',
'PlayingFlute/v_PlayingFlute_g11_c02.avi',
'PlayingFlute/v PlayingFlute g11 c03.avi',
'PlayingFlute/v_PlayingFlute_g11_c04.avi',
'PlayingFlute/v PlayingFlute g11 c05.avi',
'PlayingFlute/v PlayingFlute g11 c06.avi',
'PlayingFlute/v PlayingFlute g12 c01.avi',
'PlayingFlute/v_PlayingFlute_g12_c02.avi',
'PlayingFlute/v PlayingFlute g12 c03.avi',
'PlayingFlute/v_PlayingFlute_g12_c04.avi',
'PlayingFlute/v_PlayingFlute_g12_c05.avi',
'PlayingFlute/v_PlayingFlute_g13_c01.avi',
'PlayingFlute/v_PlayingFlute_g13_c02.avi',
```

```
'PlayingFlute/v_PlayingFlute_g13_c03.avi',
'PlayingFlute/v_PlayingFlute_g13_c04.avi',
'PlayingFlute/v_PlayingFlute_g13_c05.avi',
'PlayingFlute/v_PlayingFlute_g14_c01.avi',
'PlayingFlute/v_PlayingFlute_g14_c02.avi',
'PlayingFlute/v_PlayingFlute_g14_c03.avi',
'PlayingFlute/v PlayingFlute g14 c04.avi',
'PlayingFlute/v_PlayingFlute_g14_c05.avi',
'PlayingFlute/v PlayingFlute g14 c06.avi',
'PlayingFlute/v PlayingFlute g15 c01.avi',
'PlayingFlute/v PlayingFlute g15 c02.avi',
'PlayingFlute/v_PlayingFlute_g15_c03.avi',
'PlayingFlute/v PlayingFlute g15 c04.avi',
'PlayingFlute/v_PlayingFlute_g15_c05.avi',
'PlayingFlute/v PlayingFlute g15 c06.avi',
'PlayingFlute/v_PlayingFlute_g15_c07.avi',
'PlayingFlute/v_PlayingFlute_g16_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c04.avi',
'PlayingGuitar/v PlayingGuitar g08 c05.avi',
'PlayingGuitar/v_PlayingGuitar_g08_c06.avi',
'PlayingGuitar/v PlayingGuitar g08 c07.avi',
'PlayingGuitar/v PlayingGuitar g09 c01.avi',
'PlayingGuitar/v PlayingGuitar g09 c02.avi',
'PlayingGuitar/v PlayingGuitar g09 c03.avi',
'PlayingGuitar/v_PlayingGuitar_g09_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c05.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c06.avi',
'PlayingGuitar/v_PlayingGuitar_g10_c07.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c01.avi',
'PlayingGuitar/v PlayingGuitar g11 c02.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c03.avi',
'PlayingGuitar/v PlayingGuitar g11 c04.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c05.avi',
'PlayingGuitar/v PlayingGuitar g11 c06.avi',
'PlayingGuitar/v_PlayingGuitar_g11_c07.avi',
'PlayingGuitar/v PlayingGuitar g12 c01.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c02.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c04.avi',
'PlayingGuitar/v_PlayingGuitar_g12_c05.avi',
```

```
'PlayingGuitar/v_PlayingGuitar_g12_c06.avi',
'PlayingGuitar/v PlayingGuitar g12 c07.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c02.avi'
'PlayingGuitar/v_PlayingGuitar_g13_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c04.avi',
'PlayingGuitar/v PlayingGuitar g13 c05.avi',
'PlayingGuitar/v_PlayingGuitar_g13_c06.avi',
'PlayingGuitar/v PlayingGuitar g13 c07.avi',
'PlayingGuitar/v PlayingGuitar g14 c01.avi',
'PlayingGuitar/v PlayingGuitar g14 c02.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c03.avi',
'PlayingGuitar/v PlayingGuitar g14 c04.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c05.avi',
'PlayingGuitar/v PlayingGuitar g14 c06.avi',
'PlayingGuitar/v_PlayingGuitar_g14_c07.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c01.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c02.avi'
'PlayingGuitar/v_PlayingGuitar_g15_c03.avi',
'PlayingGuitar/v_PlayingGuitar_g15_c04.avi',
'PlayingPiano/v_PlayingPiano_g08_c01.avi',
'PlayingPiano/v PlayingPiano g08 c02.avi',
'PlayingPiano/v_PlayingPiano_g08_c03.avi',
'PlayingPiano/v PlayingPiano g08 c04.avi',
'PlayingPiano/v PlayingPiano g09 c01.avi',
'PlayingPiano/v PlayingPiano g09 c02.avi',
'PlayingPiano/v_PlayingPiano_g09_c03.avi',
'PlayingPiano/v PlayingPiano g09 c04.avi',
'PlayingPiano/v_PlayingPiano_g10_c01.avi',
'PlayingPiano/v_PlayingPiano_g10_c02.avi',
'PlayingPiano/v_PlayingPiano_g10_c03.avi',
'PlayingPiano/v_PlayingPiano_g10_c04.avi',
'PlayingPiano/v_PlayingPiano_g11_c01.avi',
'PlayingPiano/v_PlayingPiano_g11_c02.avi',
'PlayingPiano/v_PlayingPiano_g11_c03.avi',
'PlayingPiano/v_PlayingPiano_g11_c04.avi',
'PlayingPiano/v PlayingPiano g12 c01.avi',
'PlayingPiano/v_PlayingPiano_g12_c02.avi',
'PlayingPiano/v PlayingPiano g12 c03.avi',
'PlayingPiano/v PlayingPiano g12 c04.avi',
'PlayingPiano/v PlayingPiano g13 c01.avi',
'PlayingPiano/v_PlayingPiano_g13_c02.avi',
'PlayingPiano/v PlayingPiano g13 c03.avi',
'PlayingPiano/v_PlayingPiano_g13_c04.avi',
'PlayingPiano/v_PlayingPiano_g14_c01.avi',
'PlayingPiano/v_PlayingPiano_g14_c02.avi',
'PlayingPiano/v_PlayingPiano_g14_c03.avi',
```

```
'PlayingPiano/v_PlayingPiano_g14_c04.avi',
'PlayingPiano/v_PlayingPiano_g15_c01.avi',
'PlayingPiano/v_PlayingPiano_g15_c02.avi',
'PlayingPiano/v_PlayingPiano_g15_c03.avi',
'PlayingPiano/v_PlayingPiano_g15_c04.avi',
'PlayingPiano/v_PlayingPiano_g16_c01.avi',
'PlayingPiano/v PlayingPiano g16 c02.avi',
'PlayingPiano/v_PlayingPiano_g16_c03.avi',
'PlayingPiano/v PlayingPiano g16 c04.avi',
'PlayingPiano/v PlayingPiano g16 c05.avi',
'PlayingPiano/v PlayingPiano g16 c06.avi',
'PlayingPiano/v_PlayingPiano_g16_c07.avi',
'PlayingPiano/v PlayingPiano g17 c01.avi',
'PlayingPiano/v_PlayingPiano_g17_c02.avi',
'PlayingPiano/v_PlayingPiano_g17_c03.avi',
'PlayingPiano/v_PlayingPiano_g17_c04.avi',
'PlayingPiano/v_PlayingPiano_g17_c05.avi',
'PlayingPiano/v_PlayingPiano_g17_c06.avi',
'PlayingPiano/v_PlayingPiano_g18_c01.avi',
'PlayingPiano/v_PlayingPiano_g18_c02.avi',
'PlayingPiano/v_PlayingPiano_g18_c03.avi',
'PlayingPiano/v PlayingPiano g18 c04.avi',
'PlayingPiano/v_PlayingPiano_g19_c01.avi',
'PlayingSitar/v PlayingSitar g08 c01.avi',
'PlayingSitar/v PlayingSitar g08 c02.avi',
'PlayingSitar/v PlayingSitar g08 c03.avi',
'PlayingSitar/v_PlayingSitar_g08_c04.avi',
'PlayingSitar/v_PlayingSitar_g08_c05.avi',
'PlayingSitar/v_PlayingSitar_g08_c06.avi',
'PlayingSitar/v_PlayingSitar_g08_c07.avi',
'PlayingSitar/v_PlayingSitar_g09_c01.avi',
'PlayingSitar/v_PlayingSitar_g09_c02.avi',
'PlayingSitar/v_PlayingSitar_g09_c03.avi',
'PlayingSitar/v_PlayingSitar_g09_c04.avi',
'PlayingSitar/v_PlayingSitar_g09_c05.avi',
'PlayingSitar/v_PlayingSitar_g09_c06.avi',
'PlayingSitar/v PlayingSitar g09 c07.avi',
'PlayingSitar/v_PlayingSitar_g10_c01.avi',
'PlayingSitar/v PlayingSitar g10 c02.avi',
'PlayingSitar/v PlayingSitar g10 c03.avi',
'PlayingSitar/v PlayingSitar g10 c04.avi',
'PlayingSitar/v_PlayingSitar_g10_c05.avi',
'PlayingSitar/v PlayingSitar g10 c06.avi',
'PlayingSitar/v_PlayingSitar_g10_c07.avi',
'PlayingSitar/v_PlayingSitar_g11_c01.avi',
'PlayingSitar/v_PlayingSitar_g11_c02.avi',
'PlayingSitar/v_PlayingSitar_g11_c03.avi',
```

```
'PlayingSitar/v_PlayingSitar_g11_c04.avi',
'PlayingSitar/v_PlayingSitar_g11_c05.avi',
'PlayingSitar/v_PlayingSitar_g11_c06.avi',
'PlayingSitar/v_PlayingSitar_g11_c07.avi',
'PlayingSitar/v_PlayingSitar_g12_c01.avi',
'PlayingSitar/v_PlayingSitar_g12_c02.avi',
'PlayingSitar/v PlayingSitar g12 c03.avi',
'PlayingSitar/v_PlayingSitar_g12_c04.avi',
'PlayingSitar/v PlayingSitar g13 c01.avi',
'PlayingSitar/v PlayingSitar g13 c02.avi',
'PlayingSitar/v PlayingSitar g13 c03.avi',
'PlayingSitar/v_PlayingSitar_g13_c04.avi',
'PlayingSitar/v_PlayingSitar_g14_c01.avi',
'PlayingSitar/v_PlayingSitar_g14_c02.avi',
'PlayingSitar/v_PlayingSitar_g14_c03.avi',
'PlayingSitar/v_PlayingSitar_g14_c04.avi',
'PlayingSitar/v_PlayingSitar_g14_c05.avi',
'PlayingSitar/v_PlayingSitar_g14_c06.avi',
'PlayingSitar/v_PlayingSitar_g14_c07.avi',
'PlayingSitar/v_PlayingSitar_g15_c01.avi',
'PlayingSitar/v_PlayingSitar_g15_c02.avi',
'PlayingSitar/v PlayingSitar g15 c03.avi',
'PlayingSitar/v_PlayingSitar_g15_c04.avi',
'PlayingSitar/v PlayingSitar g16 c01.avi',
'PlayingSitar/v PlayingSitar g16 c02.avi',
'PlayingSitar/v_PlayingSitar_g16_c03.avi',
'PlayingTabla/v_PlayingTabla_g08_c01.avi',
'PlayingTabla/v_PlayingTabla_g08_c02.avi',
'PlayingTabla/v_PlayingTabla_g08_c03.avi',
'PlayingTabla/v_PlayingTabla_g08_c04.avi',
'PlayingTabla/v_PlayingTabla_g09_c01.avi',
'PlayingTabla/v_PlayingTabla_g09_c02.avi',
'PlayingTabla/v_PlayingTabla_g09_c03.avi',
'PlayingTabla/v_PlayingTabla_g09_c04.avi',
'PlayingTabla/v_PlayingTabla_g09_c05.avi',
'PlayingTabla/v_PlayingTabla_g10_c01.avi',
'PlayingTabla/v PlayingTabla g10 c02.avi',
'PlayingTabla/v_PlayingTabla_g10_c03.avi',
'PlayingTabla/v PlayingTabla g10 c04.avi',
'PlayingTabla/v PlayingTabla g10 c05.avi',
'PlayingTabla/v PlayingTabla g11 c01.avi',
'PlayingTabla/v_PlayingTabla_g11_c02.avi',
'PlayingTabla/v_PlayingTabla_g11_c03.avi',
'PlayingTabla/v_PlayingTabla_g11_c04.avi',
'PlayingTabla/v_PlayingTabla_g12_c01.avi',
'PlayingTabla/v_PlayingTabla_g12_c02.avi',
'PlayingTabla/v_PlayingTabla_g12_c03.avi',
```

```
'PlayingTabla/v_PlayingTabla_g12_c04.avi',
'PlayingTabla/v_PlayingTabla_g12_c05.avi',
'PlayingTabla/v_PlayingTabla_g13_c01.avi',
'PlayingTabla/v_PlayingTabla_g13_c02.avi',
'PlayingTabla/v_PlayingTabla_g13_c03.avi',
'PlayingTabla/v_PlayingTabla_g13_c04.avi',
'PlayingTabla/v PlayingTabla g13 c05.avi',
'PlayingTabla/v_PlayingTabla_g14_c01.avi',
'PlayingTabla/v PlayingTabla g14 c02.avi',
'PlayingTabla/v PlayingTabla g14 c03.avi',
'PlayingTabla/v PlayingTabla g14 c04.avi',
'PlayingTabla/v_PlayingTabla_g15_c01.avi',
'PlayingTabla/v_PlayingTabla_g15_c02.avi',
'PlayingTabla/v_PlayingTabla_g15_c03.avi',
'PlayingTabla/v_PlayingTabla_g15_c04.avi',
'PlayingTabla/v_PlayingTabla_g16_c01.avi',
'PlayingTabla/v_PlayingTabla_g16_c02.avi',
'PlayingTabla/v_PlayingTabla_g16_c03.avi',
'PlayingTabla/v_PlayingTabla_g16_c04.avi',
'PlayingTabla/v_PlayingTabla_g16_c05.avi',
'PlayingTabla/v_PlayingTabla_g17_c01.avi',
'PlayingTabla/v PlayingTabla g17 c02.avi',
'PlayingTabla/v_PlayingTabla_g17_c03.avi',
'PlayingTabla/v PlayingTabla g17 c04.avi',
'PlayingTabla/v PlayingTabla g18 c01.avi',
'PlayingTabla/v_PlayingTabla_g18_c02.avi',
'PlayingTabla/v_PlayingTabla_g18_c03.avi',
'PlayingTabla/v_PlayingTabla_g18_c04.avi',
'PlayingTabla/v_PlayingTabla_g18_c05.avi',
'PlayingViolin/v_PlayingViolin_g08_c01.avi',
'PlayingViolin/v_PlayingViolin_g08_c02.avi',
'PlayingViolin/v_PlayingViolin_g08_c03.avi',
'PlayingViolin/v_PlayingViolin_g08_c04.avi',
'PlayingViolin/v_PlayingViolin_g09_c01.avi',
'PlayingViolin/v_PlayingViolin_g09_c02.avi',
'PlayingViolin/v_PlayingViolin_g09_c03.avi',
'PlayingViolin/v PlayingViolin g09 c04.avi',
'PlayingViolin/v_PlayingViolin_g10_c01.avi',
'PlayingViolin/v PlayingViolin g10 c02.avi',
'PlayingViolin/v PlayingViolin g10 c03.avi',
'PlayingViolin/v PlayingViolin g10 c04.avi',
'PlayingViolin/v_PlayingViolin_g11_c01.avi',
'PlayingViolin/v PlayingViolin g11 c02.avi',
'PlayingViolin/v_PlayingViolin_g11_c03.avi',
'PlayingViolin/v_PlayingViolin_g11_c04.avi',
'PlayingViolin/v_PlayingViolin_g12_c01.avi',
'PlayingViolin/v_PlayingViolin_g12_c02.avi',
```

```
'PlayingViolin/v_PlayingViolin_g12_c03.avi',
'PlayingViolin/v PlayingViolin g12 c04.avi',
'PlayingViolin/v_PlayingViolin_g13_c01.avi',
'PlayingViolin/v_PlayingViolin_g13_c02.avi',
'PlayingViolin/v_PlayingViolin_g13_c03.avi',
'PlayingViolin/v_PlayingViolin_g13_c04.avi',
'PlayingViolin/v PlayingViolin g14 c01.avi',
'PlayingViolin/v_PlayingViolin_g14_c02.avi',
'PlayingViolin/v PlayingViolin g14 c03.avi',
'PlayingViolin/v_PlayingViolin_g14_c04.avi',
'PlayingViolin/v PlayingViolin g15 c01.avi',
'PlayingViolin/v_PlayingViolin_g15_c02.avi',
'PlayingViolin/v PlayingViolin g15 c03.avi',
'PlayingViolin/v_PlayingViolin_g15_c04.avi',
'PlayingViolin/v PlayingViolin g16 c01.avi',
'PlayingViolin/v_PlayingViolin_g16_c02.avi',
'PlayingViolin/v_PlayingViolin_g16_c03.avi',
'PlayingViolin/v_PlayingViolin_g16_c04.avi',
'PlayingViolin/v_PlayingViolin_g17_c01.avi',
'PlayingViolin/v_PlayingViolin_g17_c02.avi',
'PlayingViolin/v_PlayingViolin_g17_c03.avi',
'PlayingViolin/v PlayingViolin g17 c04.avi',
'PlayingViolin/v_PlayingViolin_g18_c01.avi',
'PlayingViolin/v PlayingViolin g18 c02.avi',
'PlayingViolin/v PlayingViolin g18 c03.avi',
'PlayingViolin/v PlayingViolin g18 c04.avi',
'PlayingViolin/v_PlayingViolin_g19_c01.avi',
'PlayingViolin/v_PlayingViolin_g19_c02.avi',
'PlayingViolin/v_PlayingViolin_g19_c03.avi',
'PlayingViolin/v_PlayingViolin_g19_c04.avi',
'PlayingViolin/v_PlayingViolin_g20_c01.avi',
'PlayingViolin/v_PlayingViolin_g20_c02.avi',
'PoleVault/v_PoleVault_g08_c01.avi',
'PoleVault/v_PoleVault_g08_c02.avi',
'PoleVault/v_PoleVault_g08_c03.avi',
'PoleVault/v_PoleVault_g08_c04.avi',
'PoleVault/v PoleVault g09 c01.avi',
'PoleVault/v_PoleVault_g09_c02.avi',
'PoleVault/v PoleVault g09 c03.avi',
'PoleVault/v_PoleVault_g09_c04.avi',
'PoleVault/v PoleVault g10 c01.avi',
'PoleVault/v_PoleVault_g10_c02.avi',
'PoleVault_g10_c03.avi',
'PoleVault/v_PoleVault_g10_c04.avi',
'PoleVault/v_PoleVault_g10_c05.avi',
'PoleVault/v_PoleVault_g10_c06.avi',
'PoleVault/v_PoleVault_g10_c07.avi',
```

```
'PoleVault/v_PoleVault_g11_c01.avi',
'PoleVault/v_PoleVault_g11_c02.avi',
'PoleVault/v_PoleVault_g11_c03.avi',
'PoleVault/v_PoleVault_g11_c04.avi',
'PoleVault/v_PoleVault_g11_c05.avi',
'PoleVault_v_PoleVault_g12_c01.avi',
'PoleVault/v PoleVault g12 c02.avi',
'PoleVault/v_PoleVault_g12_c03.avi',
'PoleVault/v PoleVault g12 c04.avi',
'PoleVault/v PoleVault g12 c05.avi',
'PoleVault/v_PoleVault_g12_c06.avi',
'PoleVault_v_PoleVault_g12_c07.avi',
'PoleVault/v_PoleVault_g13_c01.avi',
'PoleVault/v_PoleVault_g13_c02.avi',
'PoleVault/v_PoleVault_g13_c03.avi',
'PoleVault/v_PoleVault_g13_c04.avi',
'PoleVault/v_PoleVault_g13_c05.avi',
'PoleVault/v_PoleVault_g14_c01.avi',
'PoleVault/v_PoleVault_g14_c02.avi',
'PoleVault/v_PoleVault_g14_c03.avi',
'PoleVault/v_PoleVault_g14_c04.avi',
'PoleVault_g14_c05.avi',
'PoleVault/v_PoleVault_g14_c06.avi',
'PoleVault/v PoleVault g14 c07.avi',
'PoleVault/v PoleVault g15 c01.avi',
'PoleVault/v PoleVault g15 c02.avi',
'PoleVault/v_PoleVault_g15_c03.avi',
'PoleVault/v PoleVault g15 c04.avi',
'PoleVault/v_PoleVault_g16_c01.avi',
'PoleVault/v_PoleVault_g16_c02.avi',
'PoleVault/v_PoleVault_g16_c03.avi',
'PoleVault/v_PoleVault_g16_c04.avi',
'PoleVault/v_PoleVault_g16_c05.avi',
'PoleVault/v_PoleVault_g16_c06.avi',
'PoleVault/v_PoleVault_g16_c07.avi',
'PommelHorse/v_PommelHorse_g08_c01.avi',
'PommelHorse/v PommelHorse g08 c02.avi',
'PommelHorse_g08_c03.avi',
'PommelHorse/v PommelHorse g08 c04.avi',
'PommelHorse_g09_c01.avi',
'PommelHorse/v PommelHorse g09 c02.avi',
'PommelHorse/v_PommelHorse_g09_c03.avi',
'PommelHorse/v PommelHorse g09 c04.avi',
'PommelHorse/v_PommelHorse_g10_c01.avi',
'PommelHorse/v_PommelHorse_g10_c02.avi',
'PommelHorse/v_PommelHorse_g10_c03.avi',
'PommelHorse/v_PommelHorse_g10_c04.avi',
```

```
'PommelHorse/v_PommelHorse_g11_c02.avi',
            'PommelHorse/v_PommelHorse_g11_c03.avi',
            'PommelHorse/v_PommelHorse_g11_c04.avi',
            'PommelHorse/v_PommelHorse_g12_c01.avi',
            'PommelHorse/v_PommelHorse_g12_c02.avi',
            'PommelHorse/v_PommelHorse_g12_c03.avi',
            'PommelHorse/v_PommelHorse_g12_c04.avi',
            'PommelHorse/v PommelHorse g12 c05.avi',
            'PommelHorse/v_PommelHorse_g12_c06.avi',
            'PommelHorse/v_PommelHorse_g12_c07.avi',
            'PommelHorse/v_PommelHorse_g13_c01.avi',
            'PommelHorse_g13_c02.avi',
            'PommelHorse/v_PommelHorse_g13_c03.avi',
            'PommelHorse/v_PommelHorse_g13_c04.avi',
            'PommelHorse/v_PommelHorse_g13_c05.avi',
            'PommelHorse/v_PommelHorse_g13_c06.avi',
            'PommelHorse/v_PommelHorse_g13_c07.avi',
            'PommelHorse_g14_c01.avi',
            'PommelHorse/v_PommelHorse_g14_c02.avi',
            'PommelHorse/v_PommelHorse_g14_c03.avi',
            'PommelHorse/v PommelHorse g14 c04.avi',
            'PommelHorse/v_PommelHorse_g15_c01.avi',
            'PommelHorse/v PommelHorse g15 c02.avi',
            'PommelHorse/v_PommelHorse_g15_c03.avi',
            'PommelHorse/v PommelHorse g15 c04.avi',
            'PommelHorse/v_PommelHorse_g16_c01.avi',
            'PommelHorse_g16_c02.avi',
            'PommelHorse/v_PommelHorse_g16_c03.avi',
            'PommelHorse/v_PommelHorse_g16_c04.avi',
            'PommelHorse/v_PommelHorse_g17_c01.avi',
            'PommelHorse/v_PommelHorse_g17_c02.avi',
            'PommelHorse/v_PommelHorse_g17_c03.avi',
            'PommelHorse/v_PommelHorse_g17_c04.avi',
            'PommelHorse/v_PommelHorse_g17_c05.avi',
            'PommelHorse/v_PommelHorse_g17_c06.avi',
            'PommelHorse/v_PommelHorse_g18_c01.avi',
            'PommelHorse/v_PommelHorse_g18_c02.avi'], dtype=object)
[]: y = np.array([i//50 \text{ for } i \text{ in } range(0,1000)])
     у
                                  Ο,
                                                                               Ο,
                         Ο,
                                          Ο,
                                                               Ο,
[]: array([0,
                 0,
                     0,
                              Ο,
                                      0,
                                              0,
                                                  0,
                                                       0,
                                                           0,
                                                                   0,
                                                                       0,
                                                                           0,
                     Ο,
                                          Ο,
                                                      0,
                                                               0,
                                                                   0,
                                                                                0,
             0,
                 0,
                         0,
                              0,
                                  0,
                                      0,
                                              0,
                                                  0,
                                                           0,
                                                                           0,
                                                                       0,
                 0,
                     0,
                         0,
                              0,
                                  Ο,
                                      0,
                                          0,
                                              0,
                                                  Ο,
                                                      Ο,
                                                           0,
                                                               0,
                                                                   0,
                                                                       0,
                                                                                1,
                                  1,
                                                           1,
                              1,
                                      1,
                                          1,
                                              1,
                                                   1,
                                                       1,
                                                               1,
                                                                                1,
                                  1,
                                      1,
                                                       1,
                 1,
                          1,
                              1,
                                          1,
                                              1,
                                                   1,
                                                           1,
```

'PommelHorse/v_PommelHorse_g11_c01.avi',

```
1,
      1,
        1,
          1,
            1,
              1,
                1,
                  1,
                    1,
                      1,
                        1,
                          1,
                            1,
                              2,
    2,
          2,
            2,
              2,
                2,
                    2,
                      2,
                        2,
                                2,
2,
  2,
      2,
        2,
                  2,
                          2,
                            2,
                              2,
2,
  2,
    2,
      2,
        2,
          2,
            2,
              2,
                2,
                  2,
                    2,
                      2,
                        2,
                          2,
                            2,
                              2,
                                2,
                    2,
                        2,
                            3,
  2,
    2,
      2,
        2,
          2,
            2,
              2,
                2,
                  2,
                      2,
                          2,
                              3,
                                3,
2,
    3,
            3,
              3,
                        3,
  3,
      3,
        3,
          3,
                3,
                  3,
                    3,
                      3,
                          3,
                            3,
                              3,
                                3,
3,
  3,
                        3,
          3,
            3,
              3,
                    3,
                      3,
3,
    3,
      3,
        3,
                3,
                  3,
                          3,
                            3,
                              3,
                                3,
                    3,
        3,
                  3,
                        3,
  3,
    3,
      3,
          3,
            3,
              3,
                3,
                      3,
                          4,
                            4,
                              4,
                                4,
3,
4,
  4,
    4,
      4,
        4,
          4,
            4,
              4,
                4,
                  4,
                    4,
                      4,
                        4,
                          4,
                            4,
    4,
          4,
            4,
              4,
                  4,
                    4,
                      4,
                        4,
4,
      4,
        4,
                4,
                          4,
                            4,
                              4,
                                4,
          4,
    4,
      4,
        4,
            4,
              4,
                4,
                  4,
                    4,
                      4,
                        5,
                          5,
                            5,
                                5,
4,
    5,
        5,
5,
  5.
      5,
          5,
            5,
              5,
                5,
                  5,
                    5,
                      5,
                        5,
                          5,
                            5,
                              5,
                                5,
  5,
    5,
      5,
        5,
          5,
            5,
              5,
                5,
                  5,
                    5,
                      5,
                        5,
                          5,
                            5,
                              5,
                                5,
5,
  5,
    5,
      5,
        5,
          5,
            5,
              5,
                5,
                  5,
                    5,
                      6,
                        6,
                            6,
                              6,
5,
                          6,
                                6,
              6,
                    6,
6,
  6,
    6,
      6,
        6,
          6,
            6,
                6,
                  6,
                      6,
                        6,
                          6,
                              6,
                                6,
                            6,
  6,
    6,
                        6,
        6,
          6,
            6,
              6,
                  6,
                    6,
                      6,
6,
      6,
                6,
                          6,
                            6,
                              6,
                                6,
                        7,
6,
  6,
    6,
      6,
        6,
          6,
            6,
              6,
                6,
                  6,
                    7,
                      7,
                          7,
                            7,
                              7,
                                7,
    7,
        7,
                        7,
                            7,
  7,
          7,
            7,
              7,
                  7,
                    7,
                      7,
                              7,
7,
      7,
                7,
                          7,
                                7,
                    7,
                      7,
  7,
          7,
              7,
    7,
        7,
            7,
                7,
                  7,
                        7,
                          7,
                            7,
                              7,
                                7,
7,
      7,
            7,
              7,
  7,
                        8,
7,
    7,
      7,
        7,
          7,
                7,
                  8,
                    8,
                      8,
                          8,
                              8,
                            8,
                                8,
  8,
                        8,
            8,
              8,
                    8,
                      8,
8,
    8,
      8,
        8,
          8,
                8,
                  8,
                          8,
                            8,
                              8,
                                8,
8,
  8,
    8,
      8,
        8,
          8,
            8,
              8,
                8,
                  8,
                    8,
                      8,
                        8,
                          8,
                            8,
                              8,
                                8,
              8,
                      9,
                        9,
  8,
    8,
      8,
        8,
          8,
            8,
                9,
                  9,
                    9,
                          9,
                            9,
                              9,
                                9,
8,
  9,
    9,
        9,
          9,
            9,
              9,
                9,
                  9,
                    9,
                      9,
                        9,
                          9,
                            9,
                              9,
9,
      9,
                                9,
  9,
    9,
      9,
        9,
          9,
            9,
              9,
                9, 9,
                    9,
                      9,
                        9,
                          9,
          9,
  9,
    9,
      9,
        9,
            9,
```

```
[]: def read_frames(root_folder,arr,each_nth=10):
     videos=[]
     for j in range(len(arr)):
        clear_output()
        print(np.round(100*j/len(arr),3))
        vcap=cv2.VideoCapture(root_folder+arr[j])
        success=True
        frames=[]
        cnt=0
        while success:
          try:
            success,image=vcap.read()
            cnt+=1
            if cnt%each_nth==0:
             image=resize(image,(128,192))
             frames.append(image)
          except Exception as e:
             print(e)
        videos.append(frames)
     return videos
[]: def select_frames(frames_arr , n=10):
     videos=[]
     for i in range(len(frames_arr)):
        frames=[]
        for t in np.linspace(0, len(frames_arr[i])-1, num=n):
          frames.append(frames_arr[i][int(t)])
        videos.append(frames)
     videos = np.array(videos)
     print(videos.shape)
     return videos
[]: X_frames = read_frames("../input/ucf101/UCF101/UCF-101/",content)
   X frames = select frames(X frames, 10)
```

99.9

```
(1000, 10, 128, 192, 3)
[]: np.save('/working/xframes.npy',X_frames)
[]: y_n = to_categorical(y, 20)
[]: xtr, xte, ytr, yte = train_test_split(X_frames , y_n , shuffle=True,test_size_
      \Rightarrow 0.2, random_state = 42)
[]: fig = plt.figure(figsize=(32,8))
     random_video_index = np.random.randint(0,len(X_frames))
     for i,image in enumerate(X_frames[random_video_index]):
         ax = plt.subplot(2,5,i+1)
         imshow(image)
[ ]: def list_to_stack(xs):
      xs=tf.stack(xs, axis=1)
       s = tf.shape(xs)
       return xs
[]: ish=(10, 128, 192, 3)
     xs=[]
     inp = Input(ish)
     for slice_indx in range(0,10,1):
      x=Lambda(lambda x: x[:, slice_indx])(inp)
      x=BatchNormalization(momentum=0.8)(x)
      x=Conv2D(filters=20, kernel_size=3, padding='same', activation='relu')(x)
       x=BatchNormalization(momentum=0.8)(x)
       x=MaxPooling2D(pool_size=2)(x)
```

```
x=Conv2D(filters=30, kernel_size=3, padding='same', activation='relu')(x)
  x=BatchNormalization(momentum=0.8)(x)
  x=MaxPooling2D(pool_size=2)(x)
  x=Conv2D(filters=30, kernel_size=3, padding='same', activation='relu')(x)
  xs.append(x)
t=Lambda(list_to_stack)(xs)
t=Conv3D(50,3,padding='same')(t)
t=BatchNormalization(momentum=0.8)(t)
target shape=(10,32*48*50)
t=Reshape(target_shape)(t)
t=GRU(25, return_sequences=True)(t)
t=GRU(50, return_sequences=False,dropout=0.5)(t)
t=Dense(100, 'relu')(t)
out=Dense(20, activation='softmax')(t)
model = Model(inputs=inp, outputs=out)
opt = tf.keras.optimizers.SGD(lr=0.0087)
model.compile(loss = "categorical_crossentropy", optimizer = opt,__
 →metrics=['accuracy'])
model.summary()
```

Model: "model"

Layer (type)	Output Shape	Param #	Connected to
=======================================			
<pre>input_1 (InputLayer)</pre>	[(None, 10, 128, 19 2, 3)]	0	
lambda (Lambda) ['input_1[0][0]']	(None, 128, 192, 3)	0	
lambda_1 (Lambda) ['input_1[0][0]']	(None, 128, 192, 3)	0	
<pre>lambda_2 (Lambda) ['input_1[0][0]']</pre>	(None, 128, 192, 3)	0	
lambda_3 (Lambda) ['input_1[0][0]']	(None, 128, 192, 3)	0	
lambda_4 (Lambda)	(None, 128, 192, 3)	0	

```
['input_1[0][0]']
lambda_5 (Lambda)
                                (None, 128, 192, 3) 0
['input_1[0][0]']
lambda_6 (Lambda)
                                (None, 128, 192, 3)
['input_1[0][0]']
lambda_7 (Lambda)
                                (None, 128, 192, 3) 0
['input_1[0][0]']
lambda_8 (Lambda)
                                (None, 128, 192, 3) 0
['input_1[0][0]']
lambda_9 (Lambda)
                                (None, 128, 192, 3) 0
['input_1[0][0]']
batch_normalization (BatchNorm (None, 128, 192, 3)
['lambda[0][0]']
alization)
                                (None, 128, 192, 3)
batch_normalization_3 (BatchNo
['lambda_1[0][0]']
rmalization)
batch_normalization_6 (BatchNo (None, 128, 192, 3)
                                                      12
['lambda_2[0][0]']
rmalization)
batch_normalization_9 (BatchNo
                                 (None, 128, 192, 3)
['lambda_3[0][0]']
rmalization)
batch_normalization_12 (BatchN (None, 128, 192, 3)
['lambda 4[0][0]']
ormalization)
batch_normalization_15 (BatchN)
                                (None, 128, 192, 3)
['lambda_5[0][0]']
ormalization)
batch_normalization_18 (BatchN
                                 (None, 128, 192, 3)
['lambda_6[0][0]']
ormalization)
batch_normalization_21 (BatchN
                                (None, 128, 192, 3)
['lambda_7[0][0]']
ormalization)
```

```
batch_normalization_24 (BatchN (None, 128, 192, 3)
['lambda_8[0][0]']
ormalization)
batch_normalization_27 (BatchN (None, 128, 192, 3)
['lambda_9[0][0]']
ormalization)
conv2d (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization[0][0]']
                                )
conv2d_3 (Conv2D)
                                (None, 128, 192, 20
['batch_normalization_3[0][0]']
conv2d_6 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_6[0][0]']
                                )
conv2d 9 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_9[0][0]']
conv2d_12 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_12[0][0]']
conv2d_15 (Conv2D)
                                (None, 128, 192, 20
                                                     560
['batch_normalization_15[0][0]']
conv2d_18 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_18[0][0]']
conv2d_21 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_21[0][0]']
conv2d_24 (Conv2D)
                                (None, 128, 192, 20
['batch_normalization_24[0][0]']
conv2d_27 (Conv2D)
                                (None, 128, 192, 20 560
['batch_normalization_27[0][0]']
                                )
```

```
batch_normalization_1 (BatchNo (None, 128, 192, 20 80
['conv2d[0][0]']
rmalization)
                                )
batch_normalization_4 (BatchNo (None, 128, 192, 20
['conv2d_3[0][0]']
                                )
rmalization)
batch_normalization_7 (BatchNo (None, 128, 192, 20 80
['conv2d_6[0][0]']
rmalization)
                                )
batch_normalization_10 (BatchN (None, 128, 192, 20
['conv2d_9[0][0]']
                                )
ormalization)
batch_normalization_13 (BatchN (None, 128, 192, 20 80
['conv2d_12[0][0]']
                                )
ormalization)
batch_normalization_16 (BatchN (None, 128, 192, 20
['conv2d_15[0][0]']
ormalization)
                                )
batch_normalization_19 (BatchN (None, 128, 192, 20 80
['conv2d_18[0][0]']
                                )
ormalization)
batch_normalization_22 (BatchN (None, 128, 192, 20
['conv2d_21[0][0]']
ormalization)
                                )
batch_normalization_25 (BatchN (None, 128, 192, 20
['conv2d 24[0][0]']
ormalization)
                                )
batch_normalization_28 (BatchN (None, 128, 192, 20 80
['conv2d_27[0][0]']
                                )
ormalization)
max_pooling2d (MaxPooling2D)
                                (None, 64, 96, 20)
['batch_normalization_1[0][0]']
max_pooling2d_2 (MaxPooling2D)
                                 (None, 64, 96, 20)
['batch_normalization_4[0][0]']
max_pooling2d_4 (MaxPooling2D)
                                 (None, 64, 96, 20) 0
```

```
['batch_normalization_7[0][0]']
max_pooling2d_6 (MaxPooling2D)
                                 (None, 64, 96, 20) 0
['batch_normalization_10[0][0]']
max_pooling2d_8 (MaxPooling2D)
                                 (None, 64, 96, 20)
['batch_normalization_13[0][0]']
max_pooling2d_10 (MaxPooling2D
                                 (None, 64, 96, 20)
['batch_normalization_16[0][0]']
)
                                 (None, 64, 96, 20)
max_pooling2d_12 (MaxPooling2D
['batch_normalization_19[0][0]']
max_pooling2d_14 (MaxPooling2D
                                 (None, 64, 96, 20)
['batch_normalization_22[0][0]']
)
max_pooling2d_16 (MaxPooling2D
                                 (None, 64, 96, 20)
['batch_normalization_25[0][0]']
max_pooling2d_18 (MaxPooling2D
                                 (None, 64, 96, 20) 0
['batch_normalization_28[0][0]']
conv2d_1 (Conv2D)
                                 (None, 64, 96, 30)
                                                      5430
['max_pooling2d[0][0]']
conv2d_4 (Conv2D)
                                 (None, 64, 96, 30)
                                                      5430
['max_pooling2d_2[0][0]']
conv2d 7 (Conv2D)
                                (None, 64, 96, 30)
                                                      5430
['max_pooling2d_4[0][0]']
conv2d_10 (Conv2D)
                                 (None, 64, 96, 30)
                                                      5430
['max_pooling2d_6[0][0]']
conv2d_13 (Conv2D)
                                (None, 64, 96, 30)
                                                      5430
['max_pooling2d_8[0][0]']
conv2d_16 (Conv2D)
                                 (None, 64, 96, 30)
                                                      5430
['max_pooling2d_10[0][0]']
conv2d_19 (Conv2D)
                                (None, 64, 96, 30)
                                                      5430
['max_pooling2d_12[0][0]']
```

conv2d_22 (Conv2D) ['max_pooling2d_14[0][0]']	(None, 64, 96, 30)	5430
conv2d_25 (Conv2D) ['max_pooling2d_16[0][0]']	(None, 64, 96, 30)	5430
conv2d_28 (Conv2D) ['max_pooling2d_18[0][0]']	(None, 64, 96, 30)	5430
<pre>batch_normalization_2 (BatchNo ['conv2d_1[0][0]'] rmalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_5 (BatchNo ['conv2d_4[0][0]'] rmalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_8 (BatchNo ['conv2d_7[0][0]'] rmalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_11 (BatchN ['conv2d_10[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_14 (BatchN ['conv2d_13[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_17 (BatchN ['conv2d_16[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_20 (BatchN ['conv2d_19[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_23 (BatchN ['conv2d_22[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
<pre>batch_normalization_26 (BatchN ['conv2d_25[0][0]'] ormalization)</pre>	(None, 64, 96, 30)	120
batch_normalization_29 (BatchN ['conv2d_28[0][0]']	(None, 64, 96, 30)	120

```
ormalization)
max_pooling2d_1 (MaxPooling2D)
                                  (None, 32, 48, 30)
['batch_normalization_2[0][0]']
max_pooling2d_3 (MaxPooling2D)
                                  (None, 32, 48, 30)
['batch_normalization_5[0][0]']
max_pooling2d_5 (MaxPooling2D)
                                  (None, 32, 48, 30)
['batch_normalization_8[0][0]']
max_pooling2d_7 (MaxPooling2D)
                                  (None, 32, 48, 30)
['batch_normalization_11[0][0]']
max_pooling2d_9 (MaxPooling2D)
                                  (None, 32, 48, 30)
['batch_normalization_14[0][0]']
max_pooling2d_11 (MaxPooling2D
                                  (None, 32, 48, 30) 0
['batch_normalization_17[0][0]']
)
                                  (None, 32, 48, 30)
max_pooling2d_13 (MaxPooling2D
['batch_normalization_20[0][0]']
max_pooling2d_15 (MaxPooling2D
                                 (None, 32, 48, 30) 0
['batch_normalization_23[0][0]']
)
max_pooling2d_17 (MaxPooling2D
                                  (None, 32, 48, 30)
['batch_normalization_26[0][0]']
                                  (None, 32, 48, 30)
max_pooling2d_19 (MaxPooling2D
['batch_normalization_29[0][0]']
)
conv2d_2 (Conv2D)
                                 (None, 32, 48, 30)
                                                      8130
['max_pooling2d_1[0][0]']
conv2d_5 (Conv2D)
                                 (None, 32, 48, 30)
                                                      8130
['max_pooling2d_3[0][0]']
conv2d_8 (Conv2D)
                                 (None, 32, 48, 30)
                                                      8130
['max_pooling2d_5[0][0]']
conv2d_11 (Conv2D)
                                 (None, 32, 48, 30)
                                                      8130
['max_pooling2d_7[0][0]']
```

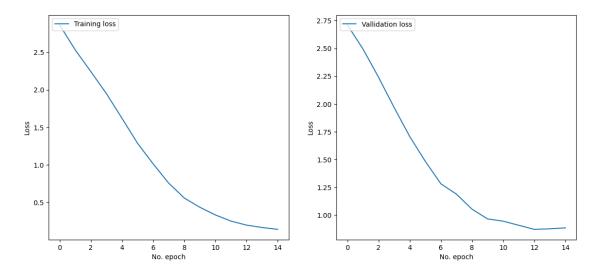
```
conv2d_14 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_9[0][0]']
conv2d 17 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_11[0][0]']
conv2d_20 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_13[0][0]']
conv2d_23 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_15[0][0]']
conv2d_26 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_17[0][0]']
conv2d_29 (Conv2D)
                                 (None, 32, 48, 30)
                                                       8130
['max_pooling2d_19[0][0]']
lambda 10 (Lambda)
                                 (None, 10, 32, 48,
                                                       0
['conv2d_2[0][0]',
                                 30)
'conv2d_5[0][0]',
'conv2d_8[0][0]',
'conv2d_11[0][0]',
'conv2d_14[0][0]',
'conv2d_17[0][0]',
'conv2d_20[0][0]',
'conv2d_23[0][0]',
'conv2d_26[0][0]',
'conv2d_29[0][0]']
conv3d (Conv3D)
                                 (None, 10, 32, 48,
                                                       40550
['lambda_10[0][0]']
                                 50)
batch_normalization_30 (BatchN (None, 10, 32, 48,
                                                        200
['conv3d[0][0]']
ormalization)
                                 50)
reshape (Reshape)
                                 (None, 10, 76800)
                                                       0
['batch_normalization_30[0][0]']
gru (GRU)
                                 (None, 10, 25)
                                                       5762025
['reshape[0][0]']
gru_1 (GRU)
                                 (None, 50)
                                                       11550
                                                                    ['gru[0][0]']
```

```
dense (Dense)
                        (None, 100)
                                      5100
                                               ['gru_1[0][0]']
                                               ['dense[0][0]']
   dense_1 (Dense)
                        (None, 20)
                                      2020
   ------
  Total params: 5,964,765
  Trainable params: 5,963,605
  Non-trainable params: 1,160
[]: from tensorflow.keras import callbacks
   early_stopping = callbacks.EarlyStopping(monitor='val_loss', patience=3,_
    →restore_best_weights=True)
   checkpoint = callbacks.ModelCheckpoint('/working/best_model.h5',_

monitor='val_loss', save_best_only=True)
[]: xtr[0].shape
[]: (10, 128, 192, 3)
[]: ytr.shape
[]: (800, 20)
[]: history1 = model.fit(xtr, ytr, epochs=15, batch_size=10, validation_data=(xte,__
    syte), shuffle = True, callbacks=[early_stopping, checkpoint])
  Epoch 1/15
  0.1737 - val_loss: 2.7092 - val_accuracy: 0.2900
  0.4200 - val_loss: 2.4937 - val_accuracy: 0.4450
  Epoch 3/15
  0.5962 - val_loss: 2.2391 - val_accuracy: 0.5550
  Epoch 4/15
  0.6913 - val_loss: 1.9670 - val_accuracy: 0.6250
  Epoch 5/15
  0.7962 - val_loss: 1.7067 - val_accuracy: 0.6350
  Epoch 6/15
  0.8587 - val_loss: 1.4836 - val_accuracy: 0.6650
  Epoch 7/15
```

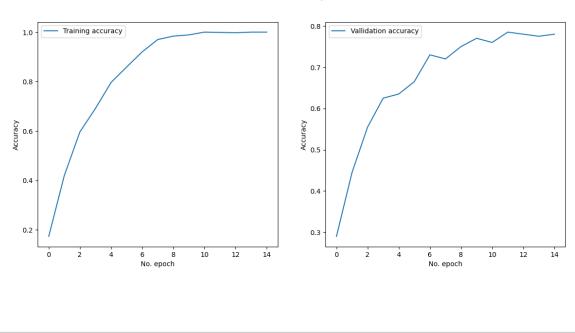
```
0.9200 - val_loss: 1.2815 - val_accuracy: 0.7300
  Epoch 8/15
  0.9700 - val_loss: 1.1883 - val_accuracy: 0.7200
  Epoch 9/15
  0.9837 - val_loss: 1.0531 - val_accuracy: 0.7500
  Epoch 10/15
  0.9887 - val_loss: 0.9656 - val_accuracy: 0.7700
  Epoch 11/15
  1.0000 - val_loss: 0.9452 - val_accuracy: 0.7600
  Epoch 12/15
  0.9987 - val_loss: 0.9082 - val_accuracy: 0.7850
  Epoch 13/15
  80/80 [============= ] - 252s 3s/step - loss: 0.1948 - accuracy:
  0.9975 - val_loss: 0.8714 - val_accuracy: 0.7800
  Epoch 14/15
  1.0000 - val_loss: 0.8763 - val_accuracy: 0.7750
  Epoch 15/15
  1.0000 - val_loss: 0.8850 - val_accuracy: 0.7800
[]: model.save("/kaggle/working/ModelActionDetector15e.h5")
[]: fig = plt.figure(figsize=(14,6))
   ax = plt.subplot(1,2,1)
   plt.plot(history1.history['loss'], label='Training loss')
   ax.legend(loc="upper left")
   plt.ylabel('Loss')
   plt.xlabel('No. epoch')
   ax = plt.subplot(1,2,2)
   plt.plot(history1.history['val_loss'], label='Vallidation loss')
   ax.legend(loc="upper left")
   fig.suptitle('Model loss')
   plt.ylabel('Loss')
   plt.xlabel('No. epoch')
   plt.show()
```

Model loss



```
fig = plt.figure(figsize=(14,6))

ax = plt.subplot(1,2,1)
plt.plot(history1.history['accuracy'], label='Training accuracy')
ax.legend(loc="upper left")
plt.ylabel('Accuracy')
plt.xlabel('No. epoch')
ax = plt.subplot(1,2,2)
plt.plot(history1.history['val_accuracy'], label='Vallidation accuracy')
ax.legend(loc="upper left")
fig.suptitle('Model Accuracy')
plt.ylabel('Accuracy')
plt.xlabel('No. epoch')
plt.show()
```



```
[]: classes = []
    for i in range(len(content)):
        class_name = content[i].split('/')[0]
        if class_name not in classes:
            classes.append(class_name)
    num_classes = [i for i in range(20)]
    class_map = dict(zip(num_classes,classes))
[]:|yte
[]: random_videos = np.random.randint(0,len(xte),size=(10))
    predicted = model.predict(xte[random_videos],batch_size = 10)
    predicted = np.argmax(predicted,axis=1)
    1/1 [======] - 1s 738ms/step
[]: random_videos
[]: array([73, 102, 73, 137, 45, 179, 153, 10, 25,
[]: fig = plt.figure(figsize=(30,10))
    for i,rand_indx in enumerate(random_videos):
        ax = plt.subplot(2,5,i+1)
        video = xte[rand_indx]
        frame = video[np.random.randint(0,10)]
        ax.set_title(class_map[predicted[i]])
        imshow(frame)
```

