FASHION REDEFINED WITH VIRTUAL GROOMING AND SHOPPING ASSISTANT

Online shopping is undoubtedly a near perfect scenario for customers looking for a blend of options and convenience, there are couple of kinks that still haven't been sorted out. Usually people who go for online shopping are confronted by issues related to size, availability, fashion style etc., To overcome these kind of problem we use an application of AI.

A Model have been created using deep learning Technology. Deep learning is a type of machine learning based on artificial neural networks in which multiple layers of processing are used to extract progressively higher level features from data. For that many images have been taken. Around 44,000 images have been taken and we have segregated the images. Based on the class name the images have been separated and filled inside the class. As we select an image the image that we have selected will be shown in that model. Then we have created a chatbot technology. The chatbot have been created using IBM Watson studio.

 A Chatbot that clarifies all those people's doubts based on the preferences. A way of chit chat! The chatbot can easily interact and find user's needs and preferences. It analyses the content of the chat to predict interest of the user. Knows what the style of outfit a user intends to purchase. Dig its database to find the right match depending on the user's preferences. In order to gain knowledge about the choices and preferences it may asks many questions to user like age range, gender, body type, cost etc., When the desired result of clothing for the person is shown to them the chatbot gives some compliments on how they look on that outfit.

These two have been integrated using python flask. These two integratedly work together to ease the customer to get their products satisfactorily. Wear clothes that matters! is the main motto of us.

```
In [340]: pred=model.predict_classes(x)
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```
In [341]: pred
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Out[341]: array([28], dtype=int64)
```

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In [342]: pred[0]
```

```
Out[342]: 28
```

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In [343]: index=['belt', 'cap', 'cosmetics', "men's pant", "men's shirt", "men's shoe", "men's slipper", "men's trouser", "men's tshirt",
```

```
In [344]: dress=index[pred[0]]
```

```
In [345]: dress
```

```
Out[345]: "women's tshirt"
```

```
In [ ]:
```

```
In [ ]:
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In [159]: model.add(Dense(units = 128,kernel_initializer = "random_uniform",activation = "relu" ))
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In [160]: model.add(Dense(units = 35,kernel_initializer = "random_uniform",activation = "softmax" ))
```

```
In [161]: model.compile(loss = "categorical_crossentropy" ,optimizer = "adam", metrics = ["accuracy"])
```

```
In [ ]: model.fit_generator(x_train,steps_per_epoch = len(x_train), epochs = 35, validation_data = x_test,validation_steps = len(x_test))
```

```
Epoch 1/35
314/314 [==============================] - 66s 212ms/step - loss: 0.4197 - accuracy: 0.8598 - val_loss: 6.0936 - val_accuracy:
0.4445
Epoch 2/35
314/314 [==============================] - 65s 208ms/step - loss: 0.3829 - accuracy: 0.8735 - val_loss: 6.3226 - val_accuracy:
0.4298
Epoch 3/35
314/314 [==============================] - 65s 206ms/step - loss: 0.3861 - accuracy: 0.8710 - val_loss: 6.4391 - val_accuracy:
0.4420
Epoch 4/35
314/314 [==============================] - 65s 207ms/step - loss: 0.3611 - accuracy: 0.8806 - val_loss: 6.7889 - val_accuracy:
0.4538
Epoch 5/35
314/314 [==============================] - 65s 208ms/step - loss: 0.3491 - accuracy: 0.8797 - val_loss: 6.9471 - val_accuracy:
0.4640
Epoch 6/35
314/314 [==============================] - 65s 208ms/step - loss: 0.3257 - accuracy: 0.8910 - val_loss: 7.0509 - val_accuracy:
0.4471
Epoch 7/35
314/314 [==============================] - 65s 208ms/step - loss: 0.3284 - accuracy: 0.8904 - val_loss: 6.8250 - val_accuracy:
```