

Logistic Regression Model Documentation

1. General Information on dataset:

- a. *the name of dataset used: Food-101*
- b. *number of classes and their labels:*
 - i. Five classes.
 - ii. ['cheesecake', 'cup_cakes', 'donuts', 'hamburger', 'pizza']
- c. *the total number of samples in dataset and the size of each (in case of images):*
 - i. number of samples: 3500 samples
 - ii. Images size: (224 * 224)
- d. *the number of samples used in training, validation and testing:*
 - i. training = 2800
 - ii. validation = 0.2 of training set (560 samples).
 - iii. testing = 700

2. Implementation details:

- *At feature extraction phase, how many features were extracted, their names, the dimension of resulted features.*
 - *how many features were extracted:* 128 features were extracted for each image using the SIFT.
 - *the dimension of resulted features:* (2800, 224, 224, 3)
- *Is cross-validation is used in any of implemented models? No.*

1. Results details:

Accuracy

Accuracy: 0.22714285714285715

Confusion matrix

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Confusion Matrix:  
[[38 31 22 26 30]
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[23 24 29 33 24]
[30 32 29 34 27]
[31 17 20 40 14]
[29 25 27 37 28]]
```

ROC curve

