COMPUTER VISION – LAB (AI303L)

Class:	BS-AI-VI	**Semester:**	Spring 2024
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Assignment # 04

Lab # 07

BoW based Image Classification in Python

Guidelines for Attempting the Assignment:

- **The lab tasks should be done on individual basis.**
- **Lab tasks solution should consist of workable codes and a detailed report containing a discussion on different tasks and their solutions, along with input and output images.**
- **The report should be prepared as an electronic document, following a consistent format. Make use of headings and subheadings where necessary.**
- **Submit your lab tasks (code + report) within the due time, as late submissions will not be encouraged and will result in the deduction of your marks.**
- **There will be a viva voce regarding the lab tasks, and the obtained marks will also be based on the viva performance.**

[Task # 01]: Cat vs Dog Classification

Your task for this lab is to apply BoW using the the same code given in the lab on the cat-dog dataset (already provided). Try diffenernt values of K and report the results then plot the confusion matrix on the given test data (validation data) for the best chosen value of K. Use SVM classifier for the classification. Do mention the feature size in the report as well. Report plus code should be uploaded on GCR (do not zip).