Report

Step1: Extract the descriptor
Step2: Combine the descriptor and classify them by using K-means
K=150
Step3: Do classify for original descriptor image by image (K-centers)
Step4: Use SVM method (I choose 200 images for a type of image as train images)

```
*
optimization finished, #iter = 203
nu = 0.175019
obj = -43.731604, rho = 0.136762
nSV = 126, nBSV = 36
*
optimization finished, #iter = 326
nu = 0.294678
obj = -75.723069, rho = 0.039215
nSV = 191, nBSV = 64
*
optimization finished, #iter = 165
nu = 0.158111
obj = -41.254292, rho = 0.035415
nSV = 111, nBSV = 37
Total nSV = 306
```

Step5: choose 100 images for a type of image as test images

```
bike_Accuracy = 59% (59/100) (classification)
car_Accuracy = 94% (94/100) (classification)
people_Accuracy = 79% (79/100) (classification)
```