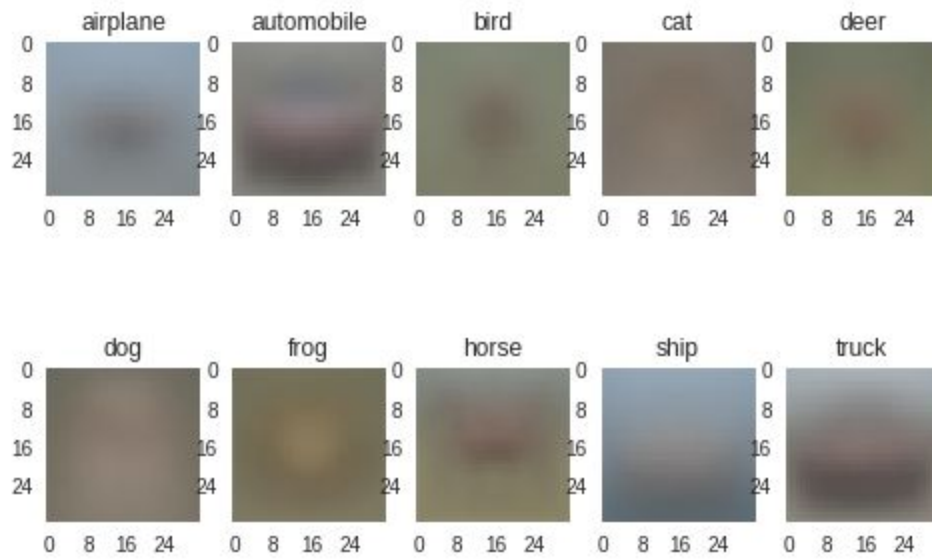
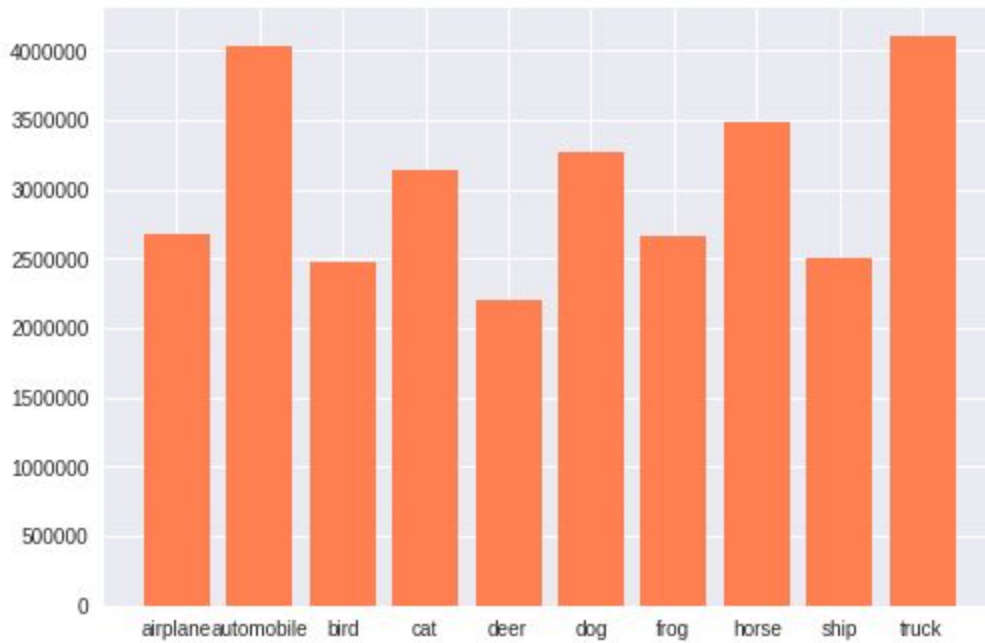


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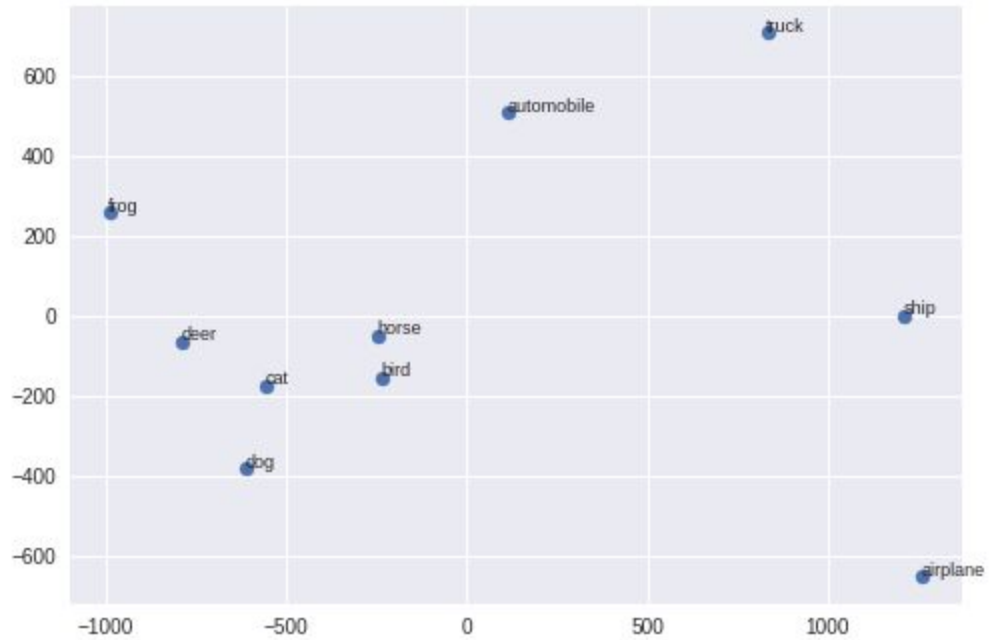
1. Page 1: **(10 points)** A plot of the mean image for each class.



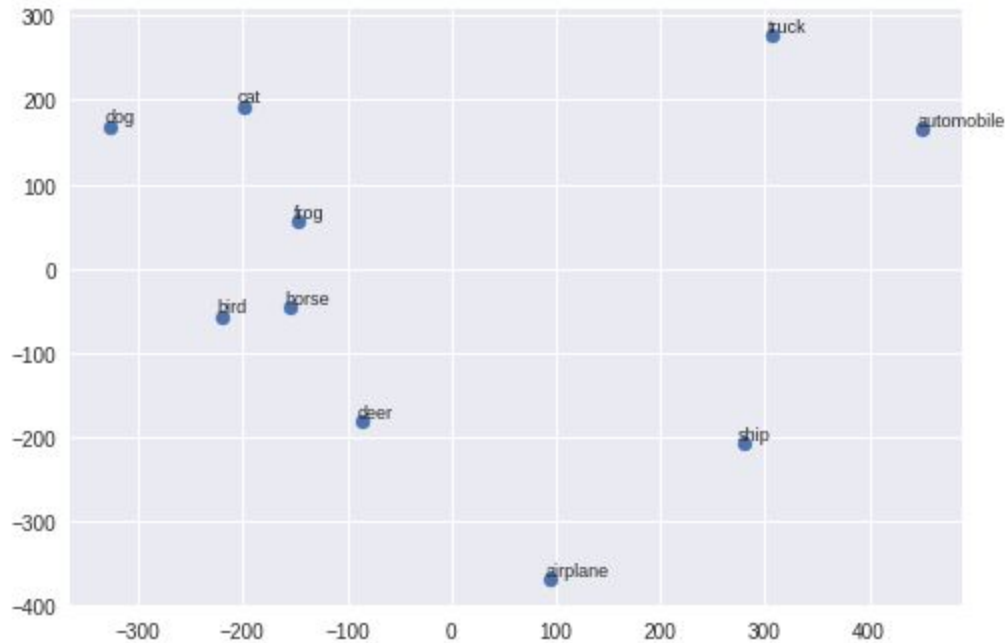
2. Page 2: **(15 points)** A plot of the average sum of squared pixel-wise difference between the reconstructed and original images of each class **as a bar graph** vs. the class label.



3. Page 3: **(25 points)** The 2D scatter plot obtained after performing principal coordinate analysis using euclidean distance.



4. Page 4: **(25 points)** The 2D scatter plot obtained after performing principal coordinate analysis using the similarity metric in part C.



The result of this method slightly differs from Part B because the datasets used in Part C have been reduced from 3072 significant dimensions to only 20 significant dimensions while Part B uses full 3072 dimensions. The fact that Part B and C result in a very similar plot suggests that we do not lose a lot of detail by scaling down dimensions.