\*Data is shrunk by a factor of 10.

**Question 1**

**Explanation:**

The CIFAR-10 dataset contains 60,000 32x32 color images in 10 classes, with 6,000 images per class. The CNN architecture consists of two convolutional layers, followed by a max pooling layer. Two fully connected layers then map the extracted features to the 10 output classes. The training process involved iterating over the training dataset in batches, performing forward and backward passes to calculate the loss and update the model's parameters accordingly. After training, the model was evaluated on the test set to measure its performance. The overall accuracy and per-class accuracy were calculated.

**Results:**

[epoch, iter]

[1, 200] loss: 2.301

[1, 400] loss: 2.304

[1, 600] loss: 2.301

[1, 800] loss: 2.295

[1, 1000] loss: 2.286

[1, 1200] loss: 2.262

[2, 200] loss: 2.164

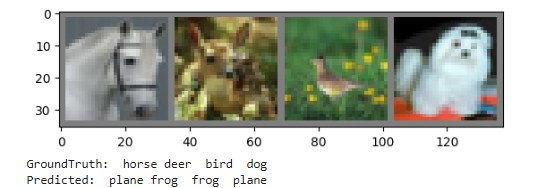
[2, 400] loss: 2.097

[2, 600] loss: 2.095

[2, 800] loss: 1.995

[2, 1000] loss: 2.006

[2, 1200] loss: 1.990



Accuracy of the network on the test images: 26 %

Accuracy for class: plane is 50.0 %

Accuracy for class: car is 23.3 %

Accuracy for class: bird is 0.0 %

Accuracy for class: cat is 21.9 %

Accuracy for class: deer is 1.0 %

Accuracy for class: dog is 11.6 %

Accuracy for class: frog is 34.6 %

Accuracy for class: horse is 31.5 %

Accuracy for class: ship is 42.6 %

Accuracy for class: truck is 51.1 %

**Question 2**

Test error: 34%

Examples:

תמונה שמכילה סוס, צילום מסך, יונק, בחוץ

התיאור נוצר באופן אוטומטי

תמונה שמכילה חלון, צילום מסך, ריבוע, מלבן

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**Question 3**