

### 3 Generative Adversarial Networks

Monitor the loss and accuracy of the generator vs discriminator, and **comment on the stability of the training.**

Batch 401 - 4000

Batch 4401 - 8000

Batch 8401 - 12000

Batch 12401 - 16000

Batch 16401 - 20000

class selected: cars



start and end of training



Batch 1

D loss: 1.2105 D acc: 0.3438  
G loss: 0.499 G acc: 0.7344



Batch 20000

D loss: 0.7291 D acc: 0.4219  
G loss: 0.7381 G acc: 0.4062

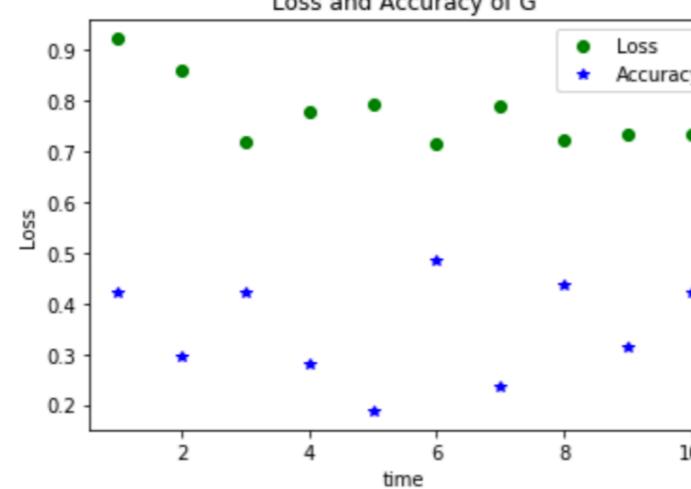
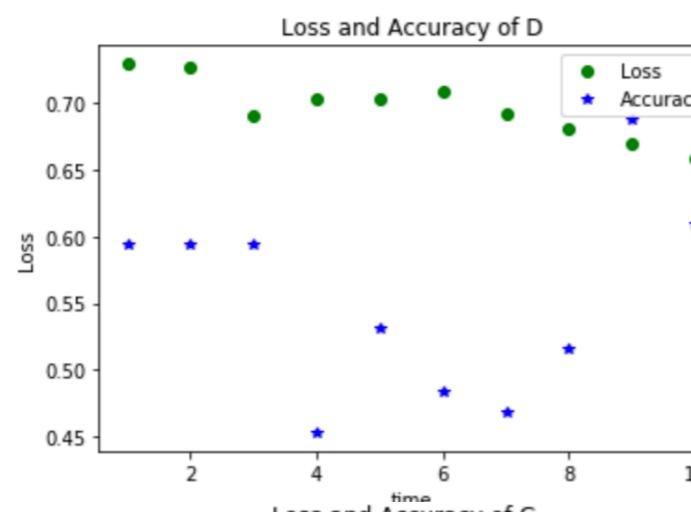
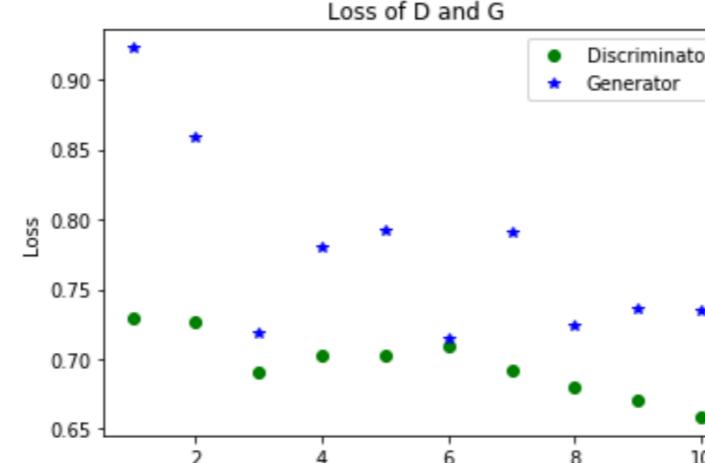
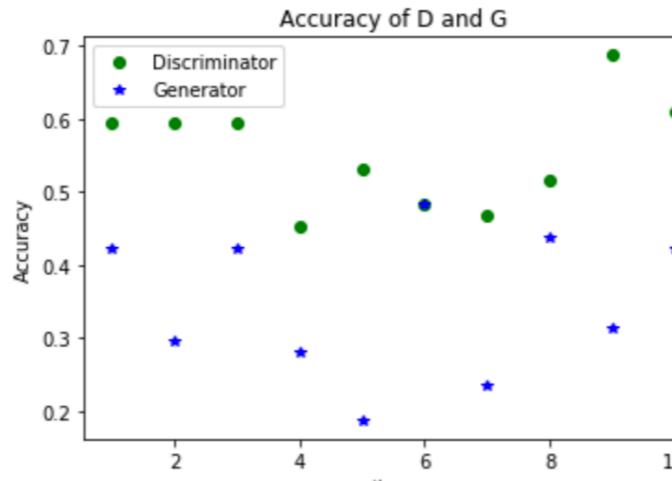
D loss: 0.7296 D acc: 0.5938  
 G loss: 0.9227 G acc: 0.4219  
 D loss: 0.727 D acc: 0.5938  
 G loss: 0.8587 G acc: 0.2969  
 D loss: 0.6912 D acc: 0.5938  
 G loss: 0.7189 G acc: 0.4219  
 D loss: 0.703 D acc: 0.4531  
 G loss: 0.7801 G acc: 0.2812  
 D loss: 0.703 D acc: 0.5312  
 G loss: 0.7921 G acc: 0.1875  
 D loss: 0.7093 D acc: 0.4844  
 G loss: 0.714 G acc: 0.4844  
 D loss: 0.6916 D acc: 0.4688  
 G loss: 0.7905 G acc: 0.2344  
 D loss: 0.6803 D acc: 0.5156  
 G loss: 0.7236 G acc: 0.4375  
 D loss: 0.67 D acc: 0.6875  
 G loss: 0.7354 G acc: 0.3125  
 D loss: 0.6586 D acc: 0.6094  
 G loss: 0.7344 G acc: 0.4219

plot1: D's **Accuracy** is higher and more stable than G's.

plot2: D's **Loss** is lower and more stable than G's.

plot3: D's Loss is higher and more stable than D's Accuracy.

plot4: G's Loss is higher and more stable than G's Accuracy.



intermediate steps of training

