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EE 104 Lab 8 READ ME file.
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CNN Accuracy (1)
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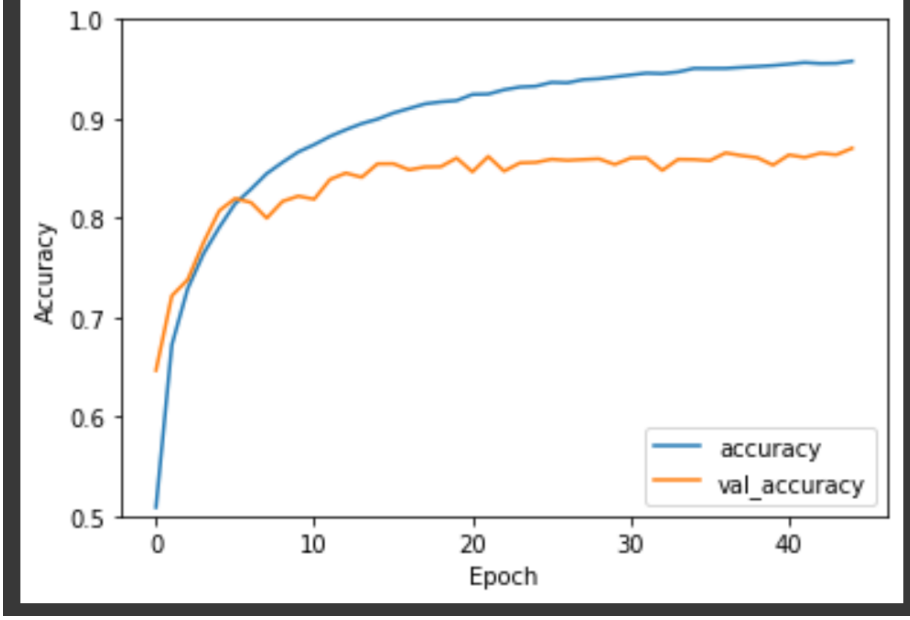
A baseline code that provides a 70% accuracy in CNN is modified. By increasing dropout, using data augmentation, batch normalization, and a few additional methods the baseline was able to reach 87%.

```
313/313 - 1s - loss: 0.5020 - accuracy: 0.8702 - 1s/epoch - 3ms/step
```



CNN Challenge (2)
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CNN does an object classification process. It is able to classify airplanes, automobiles, birds, cats, deers, dogs, frogs, horses, ships, and trucks. Using the same dataset and modified code as part 1, the CNN code is able to recognize 6 unrecognized images. Each prediction shows the guess along with the percentage of confidence that it is in that classification.

```
[22] cat_url = "https://static.toiimg.com/thumb/msid-67586673,width-1070,height-580,overlay-t
     cat_path = tf.keras.utils.get_file('67586673', origin=cat_url)

     img = tf.keras.utils.load_img(
         cat_path, target_size=(32,32)
     )
     img_array = tf.keras.utils.img_to_array(img)
     img_array = tf.expand_dims(img_array, 0) # Create a batch

     predictions = model.predict(img_array)
     score = tf.nn.softmax(predictions[0])

     print(
         "This image most likely belongs to {} with a {:.2f} percent confidence."
         .format(class_names[np.argmax(score)], 100 * np.max(score))
     )

     This image most likely belongs to cat with a 23.20 percent confidence.
```

Balloon Flight (3)

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Using a base code given in class for the Balloon flight game, alterations are done to leverage the game in four different ways, more high scores, speed it up, different ways to score, and multiples of each obstacles. In more high score, two additional placements are added. In speed it up, one bird is sped up. In different ways to score, the score increases every time the house passes under the balloon. The final alteration multiples of each obstacles doubles every obstacle in the balloons path.