**Prediction Algorithm - Use of different packages on dataset of Cat and**

**Non-Cat images**

import numpy as np

import matplotlib.pyplot as plt

import h5py

import scipy

from PIL import Image

from scipy import ndimage

from lr\_utils import load\_dataset

%matplotlib inline

#Data will be loaded from the test\_catvnoncat.h5 and train\_catvnoncat.h5 files

#The load\_dataset function below is responsebile for loading the above mentioned data files.

#lr\_utils file includes the function load\_dataset()

# Loading the data (cat/non-cat)

train\_set\_x\_orig, train\_set\_y, test\_set\_x\_orig, test\_set\_y, classes = load\_dataset()

# We added "\_orig" at the end of image datasets (train and test) because we are going to preprocess them. After preprocessing, we will end up with train\_set\_x and test\_set\_x (the labels train\_set\_y and test\_set\_y don't need any preprocessing).

# Each line of your train\_set\_x\_orig and test\_set\_x\_orig is an array representing an image. You can visualize an example by running the following code. Feel free also to change the `index` value and re-run to see other images.

# Example of a picture

#change the index value below to check if the image at that particular index is cat or non cat

index = 26

plt.imshow(train\_set\_x\_orig[index])

print ("y = " + str(train\_set\_y[:, index]) + ", it's a '" + classes[np.squeeze(train\_set\_y[:, index])].decode("utf-8") + "' picture.”)

Output:

For the first image(flower) index = 26 and for the second image (Cat image) index = 25

