

Georgia State University

CSC 4260

Homework 3

Please submit your assignment by 11:59 pm on April 21, including:

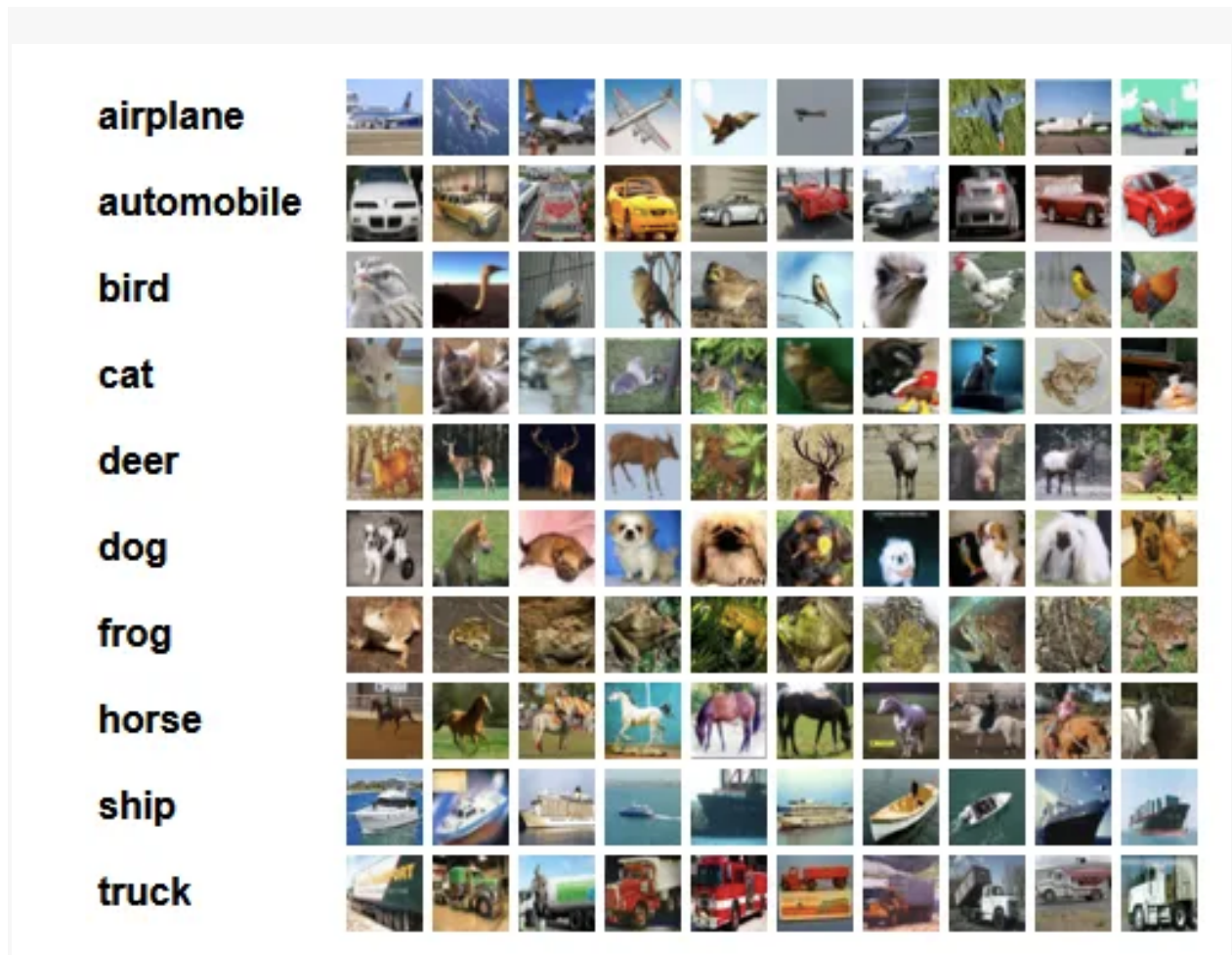
1-A program file, adequately commented for clarity.

2-A work report in PDF format, encompassing program codes and showcasing the architecture of the CNN, plot of the accuracy - val_accuracy, and test accuracy percentage.

Problem:

Design a CNN model utilizing the "cifar10" dataset to achieve superior classification performance.

Cifar 10 Dataset:



The ‘10’ in this CIFAR-10 dataset refers to 10 classes. These 10 classes as shown in the above image are — Airplane, Automobile, Bird, Cat, Deer, Dog, Frog, Horse, Ship and Truck respectively.

You can load the data set:

```
“(x_train, Y_train), (x_test, Y_test) = keras.datasets.cifar10.load_data()”
```