

CSCI204/MCS9204/CSCI804
Object and Generic Programming in C++
Laboratory Exercise 1 (Week 2)

Task: Functions and File I/O (1.0)

Define a structure **Pet** consist data fields: status (lost or found), pet type, gender, breeds, age of year, age of month, colour, chip number, location, contact phone number in a file **pet.h**.

Define functions' prototypes and other necessary definitions in the file **pet.h**.

The data fields' types are decided by you.

Implement a function `countRecords(char *)` in a file **pet.cpp** that can return how many records of pets in a given text file. Implement a function `loadRecords(char *, Pet *, int)` load the pet records in a dynamic Pet array from the given text file. Implement a function `printRecords(Pet *, int)` print out all the pet records.

The example file **pets.dat** of pet records can be downloaded from the site of the lab task.

Each record stored in one line, different data fields separated by commas except the last field. There might be some empty lines in a given text file. The empty lines **cannot** be count as the records.

Implement driver program in the main function in **pet.cpp** to get the input text file name from a user, print out number of pet records that stored in the file, load pet records and print out all the data that loaded.

Don't forget to delete the dynamic pet record array before the program finished.

Submission:

You should submit the files of task to the server by 11:59 PM on Friday, 11 March 2016 via command:

```
submit -u your-user-name -c CSCI204 -a L1 pet.h pet.cpp
```

and input your password.

Make sure that you use the correct file names. The UNIX system is case sensitive. You must submit all files in one *submit* command line.

After submit your assignment successfully, please check your email of confirmation. You should keep this email for the reference.

You would receive ZERO of the marks if your program codes could not be compiled correctly.

Later submission will not be accepted. Submission via e-mail is NOT acceptable.

End of Specification