# **Lab Exercise 5**

# **UNIX Files**

**Put your numbered answers into the assignment submission area in Webcourses. Do not add any attachment to your submission.**

1. **Create the “Hello World” program and store it in a file called hello.c**

**#include <stdio.h>**

**int main()**

**{**

**printf("hello World");**

**}**

**You can compile this using the following command “cc hello.c “ This will produce an executable file called a.out. You can execute this by typing “./a.out”**

1. **Now run the file command using hello.c as a parameter.**
2. **Run the file command using a.out as a parameter.**

**Create a simple text file called myfile.txt containing at least 30 lines of text.**

1. **Run the file command using myfile.txt as a parameter.**
2. **Run the file command specifying a directory (e.g /usr) as the parameter**

**Print the output from the file command in each case a,b,c,d.**

1. **hello.c: ASCII C program text**
2. **a.out: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically linked (uses shared libs), for GNU/Linux 2.6.15, not stripped**
3. **myfile.txt: ASCII text, with no line terminators**
4. **/home/likewise-open/ICTDOMAIN/c13569113: directory**
5. **Using the wc command, find out how many bytes, words and lines are in**

**myfile.txt**

**Print the output from the wc command into your submission.**

**0 – 1 – 6 myfile.txt**

**3. Create the following two files, file1 and file2**

**file1 should contain the following:**

**Mary had a little lamb**

**It’s fleece was white as snow**

**And everywhere that Mary went**

**The lamb was sure to go!**

**File2 should contain the following:**

**Mary had a little sheep**

**It’s fleece was white as snow**

**And everyplace that Molly went**

**The sheep was sure to go!**

**Now run the diff and cmp commands using these files so that you can compare and contrast the output. Paste the output into the submission box.**

**Diff:**

**1c1**

**< Mary had a little lamb**

**---**

**> Mary had a little sheep**

**3,4c3,4**

**< And everywhere that Mary went**

**< The lamb was sure to go!**

**---**

**> And everyplace that Molly went**

**> The sheep was sure to go!**

**Cmp:**

**file1 file2 differ: byte 19, line 1**

**Explain the difference between cmp and diff?**

**Diff can only compare text files, cmp compares files of any type**

**4. Create a file called repfile containing the following text:**

**aaa**

**bbb**

**bbb**

**ccc**

**ccc**

**ccc**

**ddd**

**ddd**

**eee**

**Now try the command uniq repfile. What effect does it have?**

**If lines are repeated, it only displays the line once, in this case bbb,ccc and ddd are only displayed once**

**5. Create a file called dob where each line in the file contains three fields : date of birth (in the day.month.year format), surname and firstname (the fields should be separated by spaces). For example:**

**29.02.76 Bloggs Joe**

**30.05.70 Smith John**

**15.03.86 Conway Kevin**

**12.04.90 Ryan James**

**10.06.92 Murphy Kevin**

**You can use putty with cut and paste to create the file from this document.**

**5.a What command can you use to display only the year information from**

**each line of the file?**

**Cut –f1 –d’ ‘ dob**

**5.b What command can you use to display only the second name from each line of**

**the file ?**

**cut –f2 –d’ ‘ dob**

**6. Prepare three files containing a list of un-ordered dates. The file *date1* should be in the format dd:mm:yy, *date2* is in the mm:dd:yy and *date3* is in the format yy:mm:dd.**

**For example:**

**date date1 Format date2 Format date3 Format**

**1st Nov 1989 01:11:89 11:01:89 89:11:01**

**29th April 1932 29:04:32 04:29:32 32:04:29**

**15th Dec 1950 15:12:50 12:15:50 50:12:15**

**etc.**

**You can use putty with cut and paste to create these files from this document:**

**File date1:**

**01:11:89**

**29:04:32**

**15:12:50**

**File date2:**

**11:01:89**

**04:29:32**

**12:15:50**

**File date3:**

**89:11:01**

**32:04:29**

**50:12:15**

**Use the sort command to order each list in both ascending and descending order of dates. Remember, you can regard the ‘:’ as a field separator.**

**What sort command is required in each case?**

**7. To create a copy of myfile.txt called myfile.new the following command can be used:**

**cat < myfile.txt > myfile.new**

**Show another way of achieving the same end result, but still using the cat command.**

**Users | cat > loguser**

1. **Create a file called loguser containing a list of those users currently**

**logged in. What command did you use?**

**who**

1. **Using the ls -l command in conjunction with the cut command, list only the names of files in the current directory. What command did you use?**

**ls -cut f2-d' ' ~**

1. **If the contents of repfile in task 4 were not sorted how could you sort it and eliminate any duplications using two pipelined commands?**

**Sort repfile | uniq**