

## CSc 3320: Systems Programming

Spring 2021

Homework

# 3: Total points 100

### Submission instructions:

1. Create a Google doc for each homework assignment submission.
2. Start your responses from page 2 of the document and copy these instructions on page 1.
3. Fill in your name, campus ID and panther # in the fields provided. If this information is missing in your document TWO POINTS WILL BE DEDUCTED per submission.
4. Keep this page 1 intact on all your submissions. If this *submissions instructions* page is missing in your submission TWO POINTS WILL BE DEDUCTED per submission.
5. Each homework will typically have 2-3 PARTS, where each PART focuses on specific topic(s).
6. Start your responses to each PART on a new page.
7. If you are being asked to write code copy the code into a separate txt file and submit that as well.
8. If you are being asked to test code or run specific commands or scripts, provide the evidence of your outputs through a screenshot and copy the same into the document.
9. Upon completion, download a .PDF version of the document and submit the same.

Full Name: Hawa Sylla

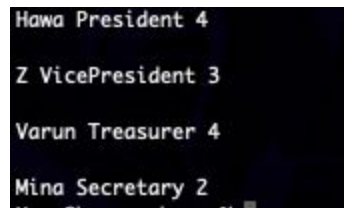
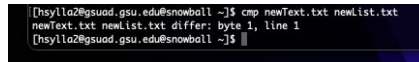
Campus ID: hsylla2


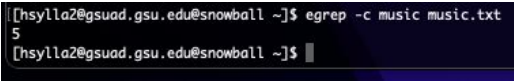
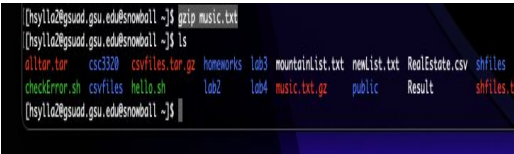
Panther #: 002-31-2868

**10 pts for the neatness factor of your presentation.**

**PART 1: 30pts**

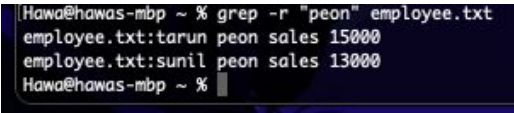
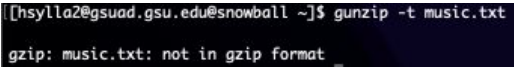
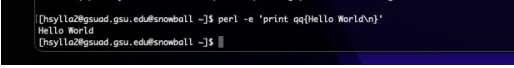
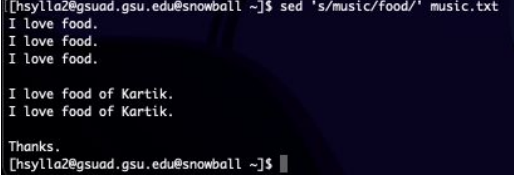
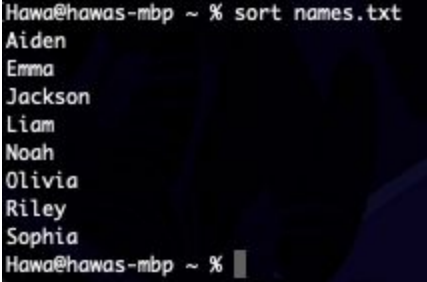
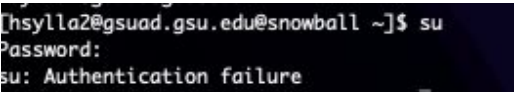
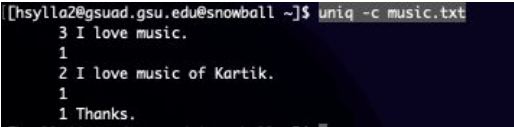
1. For each command tryout at least one example provided in **Chapter 3** of the Unix textbook. Feel free to use your own example. Show the screenshot for each command's output. Present your output in a tabular form with column 1 as index (1,2,3..), second column as the command, third as the usage, fourth as the screenshot of the output. You can just show a small snapshot for the output -- we do not need the entire screen's image.

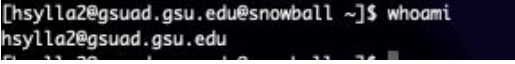
1.	at	at Tuesday +20 minutes	<p>at command is a command-line utility that is used to schedule a command to be executed at a particular time in the future.</p> <p>this line schedules a job for the coming tuesday at a time twenty minutes later than the current time:</p>
2	awk	awk '{print}' clubMemeber.txt	
3	biff	biff y	<p><i>biff</i> is a mail notification system for unix that notifies the user at the command line when new mail arrives and tells from whom it is.</p>
4	cmp	cmp newText.txt newList.txt	

5	crypt	ccrypt [filename]	Ccrypt is a command line tool for encryption and decryption of data. It is designed to overcome the shortcomings of standard unix crypt utility.
6	diff	diff newList.txt music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ diff newList.txt music.txt 1c1,3 &lt; Brasstown Bald, (summit),4784,feet,Union County --- &gt; I love music. &gt; I love music. &gt; I love music. 3,23c5,6 &lt; Rabun Bald, (summit),4696,feet,Rabun County &lt; &lt; Dick's Knob, (summit),4620,feet,Rabun County &lt; &lt; Hightower Bald, (summit),4568,feet,Towns County &lt; &lt; Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union &lt; Counties &lt; &lt; Blood Mountain, (summit),4458,feet,Union County &lt; &lt; Tray Mountain, (summit), 4430,feet,Towns County &lt; &lt; Grassy Ridge, (ridge high point),4420,feet,Rabun County &lt; &lt; Slaughter Mountain, (summit),4338,feet,Union County &lt; &lt; Double Spring Knob, (summit),4280,feet,Rabun County &lt; &lt; Coosa Bald, (summit),4280,feet,Union County --- &gt; I love music of Kartik. &gt; I love music of Kartik. 24a8 &gt; Thanks. [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
7	dump	dump -W	<p>dump command in Linux is used to backup the filesystem to some storage device</p> <p>It backs up the complete file system and not the individual files</p> <p>-W : Lists the file systems that need to be backed up.</p>
8	egrep	\$ egrep -c music music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ egrep -c music music.txt 5 [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
9	gzip	gzip music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ gzip music.txt [hsylla2@gsuad.gsu.edu@snowball ~]\$ ls alltar.tar  csc3320  csvfiles.tar.gz  homeworks  lab3  mountainlist.txt  newList.txt  RealEstate.csv  shfiles checkError.sh  csvfiles  hello.sh  lab2  lab4  music.txt.gz  public  Result  shfiles.tar [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>

10	ln	ln -v newText.txt	<pre> try 'ln --help' for more information. [hsylla2@gsuad.gsu.edu@snowball ~]\$ vi newText.txt [hsylla2@gsuad.gsu.edu@snowball ~]\$ ln -v newText.txt ln: failed to create hard link './newText.txt': File exists [hsylla2@gsuad.gsu.edu@snowball ~]\$ </pre>
11	mount	mount /dev/fd0 /mnt	<p>Mount a Floppy Disk</p> <p>The device file for floppy disk would exist under /dev directory</p>
12	od	od -b newText.txt	<pre> [hsylla2@gsuad.gsu.edu@snowball ~]\$ od -b newText.txt 0000000 040 164 145 163 164 151 156 147 040 164 145 163 164 151 156 147 0000020 056 056 056 056 012 012 111 040 150 141 166 145 040 141 040 164 0000040 145 163 164 040 156 145 170 164 040 154 145 163 163 157 156 012 0000060 111 342 200 231 155 040 162 145 141 154 154 171 040 156 157 164 0000100 040 160 162 145 160 141 162 145 144 012 111 040 150 141 166 145 0000120 040 141 040 164 145 163 164 040 156 145 170 164 040 154 145 163 0000140 163 157 156 012 111 342 200 231 155 040 162 145 141 154 154 171 0000160 040 147 145 164 164 151 156 147 040 163 143 141 162 145 144 041 0000200 012 012 111 164 342 200 231 163 040 162 145 141 154 154 171 040 0000220 156 157 164 040 155 171 040 146 141 165 154 164 012 111 040 164 0000240 162 151 145 144 040 111 040 162 145 141 154 154 171 040 164 162 0000260 151 145 144 012 131 145 164 040 167 151 164 150 040 141 154 154 0000300 040 164 150 145 040 164 150 151 156 147 163 040 164 157 040 144 0000320 157 012 124 150 151 163 040 164 145 163 164 040 147 157 164 040 0000340 160 165 163 150 145 144 040 141 163 151 144 145 012 012 111 040 0000360 167 141 163 040 145 170 164 162 145 155 145 154 171 040 142 165 0000400 163 171 012 122 165 156 156 151 156 147 040 150 145 162 145 040 0000420 141 156 144 040 164 150 145 162 145 012 111 040 144 151 144 156 0000440 342 200 231 164 040 155 141 156 141 147 145 040 164 157 040 154 0000460 145 141 162 156 040 146 157 162 040 164 150 145 040 164 145 163 0000500 164 012 102 165 164 040 151 164 342 200 231 163 040 156 157 164 0000520 040 164 150 141 164 040 111 040 144 151 144 156 342 200 231 164 0000540 040 143 141 162 145 041 012 012 111 040 162 145 141 154 154 171 0000560 040 167 141 156 164 145 144 040 164 157 040 163 164 165 144 171 0000600 012 111 040 162 145 141 154 154 171 040 167 141 156 164 145 144 0000620 040 164 157 040 154 145 141 162 156 012 111 040 152 165 163 164 0000640 040 150 141 144 040 163 157 040 155 165 143 150 040 145 154 163 0000660 145 040 164 157 040 144 157 012 111 164 040 156 145 166 145 162 0000700 040 147 157 164 040 151 164 163 040 164 165 162 156 041 012 012 0000720 123 157 040 156 157 167 040 141 163 040 111 040 163 151 164 040 0000740 150 145 162 145 012 114 157 157 153 151 156 147 040 141 164 040 0000760 164 150 145 040 164 145 163 164 012 101 040 143 157 165 160 154 0001000 145 040 157 146 040 161 165 145 163 164 151 157 156 163 040 111 0001020 040 155 141 156 141 147 145 040 164 157 040 144 157 012 111 040 0001040 163 151 155 160 154 171 040 144 157 156 342 200 231 164 040 153 0001060 156 157 167 040 164 150 145 040 162 145 163 164 041 012 012 111 0001100 040 154 157 157 153 040 141 164 040 145 166 145 162 171 157 156 0001120 145 040 145 154 163 145 012 124 150 145 151 162 040 160 145 156 0001140 163 040 141 162 145 040 163 143 162 141 164 143 150 151 156 147 0001160 040 141 167 141 171 056 012 111 040 164 150 151 156 153 040 111 0001200 342 200 231 166 145 040 154 145 141 162 156 164 040 155 171 040 0001220 154 145 163 163 157 156 040 171 157 165 040 153 156 157 167 012 0001240 123 164 165 144 171 151 156 147 040 162 145 141 154 154 171 040 0001260 144 157 145 163 040 160 141 171 041 012 0001272 [hsylla2@gsuad.gsu.edu@snowball ~]\$ </pre>
13	tar	tar cvf file.tar *.txt	<pre> [hsylla2@gsuad.gsu.edu@snowball ~]\$ tar cvf file.tar *.txt mountainList.txt newList.txt newText.txt [hsylla2@gsuad.gsu.edu@snowball ~]\$ </pre>
14	time	time sleep 3	<pre> [hsylla2@gsuad.gsu.edu@snowball ~]\$ time sleep 3  real    0m3.004s user    0m0.002s sys     0m0.003s [hsylla2@gsuad.gsu.edu@snowball ~]\$ </pre>

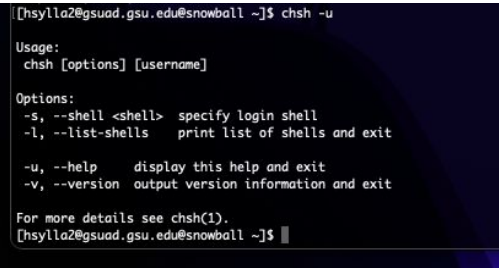
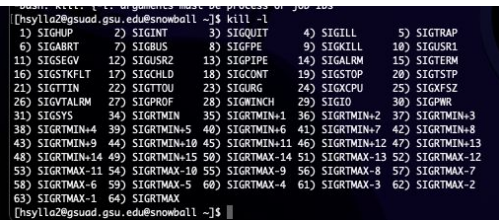
15	tr	tr "test" "TeSt"	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ cat newText.txt   tr "test" "TeSt" teStIng....  I have a teSt next leSSon I'm really not prepared I have a teSt next leSSon I'm really getting Scared!  It'S really not my fault I tried I really tried Yet with all the thingS to do ThiS teSt got puShed aSide  I waS extremely buSy Running here and there I didn't manage to learn for the teSt But it'S not that I didn't care!  I really wanted to Study I really wanted to learn I juSt had So much eLse to do It never got itS turn!  So now aS I Sit here Looking at the teSt A couple of queStionS I manage to do I Simply don't know the reSt!  I look at everyone eLse Their penS are ScratchIng away. I think I've learnt my leSSon you know StudyIng really doeS pay! [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
16	ul	echo \$'hello T\b_H\b_E\b_ world'   ul	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ echo \$'hello T\b_H\b_E\b_ world'   ul hello THE world [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
17	compress	compress [OPTION]... [FILE]...	<i>compress</i> command is used to reduce the file size.
18	cpio	cpio -o < name-list > archive	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ cpio -o &lt; name-list &gt; archive 1 block [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
19	cron	util runs on commands specified in cron table  crontab -l  to display cron table	use the <b>cron</b> service to schedule things such as regular backups that can occur daily at 3 a.m.
20	crontab	[MIN] [HOUR] [Day Of Month] [MONTH] [Day Of Week] [CMD]	a list of commands that you want to run on a regular schedule, and also the name of the command used to manage that list
21	fgrep	fgrep -h "music" music.txt	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ fgrep -h "music" music.txt I love music. I love music. I love music. I love music of Kartik. I love music of Kartik. [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
22	find	find ./GFG -name *.txt	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ find ./GFG -name *.txt find: paths must precede expression: music.txt usage: find [-H] [-L] [-P] [-Ddevs] [-O help tree search stat rsync opt exec] [path...] [expression] [hsylla2@gsuad.gsu.edu@snowball ~]\$ find -H ./ ./GFG ./GFG/1 ./GFG/2 ./GFG/3 ./GFG/4 ./GFG/5 ./GFG/6 ./GFG/7 ./GFG/8 ./GFG/9 ./GFG/10 ./GFG/11 ./GFG/12 ./GFG/13 ./GFG/14 ./GFG/15 ./GFG/16 ./GFG/17 ./GFG/18 ./GFG/19 ./GFG/20 ./GFG/21 ./GFG/22 ./GFG/23 ./GFG/24 ./GFG/25 ./GFG/26 ./GFG/27 ./GFG/28 ./GFG/29 ./GFG/30 ./GFG/31 ./GFG/32 ./GFG/33 ./GFG/34 ./GFG/35 ./GFG/36 ./GFG/37 ./GFG/38 ./GFG/39 ./GFG/40 ./GFG/41 ./GFG/42 ./GFG/43 ./GFG/44 ./GFG/45 ./GFG/46 ./GFG/47 ./GFG/48 ./GFG/49 ./GFG/50 ./GFG/51 ./GFG/52 ./GFG/53 ./GFG/54 ./GFG/55 ./GFG/56 ./GFG/57 ./GFG/58 ./GFG/59 ./GFG/60 ./GFG/61 ./GFG/62 ./GFG/63 ./GFG/64 ./GFG/65 ./GFG/66 ./GFG/67 ./GFG/68 ./GFG/69 ./GFG/70 ./GFG/71 ./GFG/72 ./GFG/73 ./GFG/74 ./GFG/75 ./GFG/76 ./GFG/77 ./GFG/78 ./GFG/79 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./GFG/582 ./GFG/583 ./GFG/584 ./GFG/585 ./GFG/586 ./GFG/587 ./GFG/588 ./GFG/589 ./GFG/590 ./GFG/591 ./GFG/592 ./GFG/593 ./GFG/594 ./GFG/595 ./GFG/596 ./GFG/597 ./GFG/598 ./GFG/599 ./GFG/600 ./GFG/601 ./GFG/602 ./GFG/603 ./GFG/604 ./GFG/605 ./GFG/606 ./GFG/607 ./GFG/608 ./GFG/609 ./GFG/610 ./GFG/611 ./GFG/612 ./GFG/613 ./GFG/614 ./GFG/615 ./GFG/616 ./GFG/617 ./GFG/618 ./GFG/619 ./GFG/620 ./GFG/621 ./GFG/622 ./GFG/623 ./GFG/624 ./GFG/625 ./GFG/626 ./GFG/627 ./GFG/628 ./GFG/629 ./GFG/630 ./GFG/631 ./GFG/632 ./GFG/633 ./GFG/634 ./GFG/635 ./GFG/636 ./GFG/637 ./GFG/638 ./GFG/639 ./GFG/640 ./GFG/641 ./GFG/642 ./GFG/643 ./GFG/644 ./GFG/645 ./GFG/646 ./GFG/647 ./GFG/648 ./GFG/649 ./GFG/650 ./GFG/651 ./GFG/652 ./GFG/653 ./GFG/654 ./GFG/655 ./GFG/656 ./GFG/657 ./GFG/658 ./GFG/659 ./GFG/660 ./GFG/661 ./GFG/662 ./GFG/663 ./GFG/664 ./GFG/665 ./GFG/666 ./GFG/667 ./GFG/668 ./GFG/669 ./GFG/670 ./GFG/671 ./GFG/672 ./GFG/673 ./GFG/674 ./GFG/675 ./GFG/676 ./GFG/677 ./GFG/678 ./GFG/679 ./GFG/680 ./GFG/681 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./GFG/982 ./GFG/983 ./GFG/984 ./GFG/985 ./GFG/986 ./GFG/987 ./GFG/988 ./GFG/989 ./GFG/990 ./GFG/991 ./GFG/992 ./GFG/993 ./GFG/994 ./GFG/995 ./GFG/996 ./GFG/997 ./GFG/998 ./GFG/999 ./GFG/1000 ./GFG/1001 ./GFG/1002 ./GFG/1003 ./GFG/1004 ./GFG/1005 ./GFG/1006 ./GFG/1007 ./GFG/1008 ./GFG/1009 ./GFG/1010 ./GFG/1011 ./GFG/1012 ./GFG/1013 ./GFG/1014 ./GFG/1015 ./GFG/1016 ./GFG/1017 ./GFG/1018 ./GFG/1019 ./GFG/1020 ./GFG/1021 ./GFG/1022 ./GFG/1023 ./GFG/1024 ./GFG/1025 ./GFG/1026 ./GFG/1027 ./GFG/1028 ./GFG/1029 ./GFG/1030 ./GFG/1031 ./GFG/1032 ./GFG/1033 ./GFG/1034 ./GFG/1035 ./GFG/1036 ./GFG/1037 ./GFG/1038 ./GFG/1039 ./GFG/1040 ./GFG/1041 ./GFG/1042 ./GFG/1043 ./GFG/1044 ./GFG/1045 ./GFG/1046 ./GFG/1047 ./GFG/1048 ./GFG/1049 ./GFG/1050 ./GFG/1051 ./GFG/1052 ./GFG/1053 ./GFG/1054 ./GFG/1055 ./GFG/1056 ./GFG/1057 ./GFG/1058 ./GFG/1059 ./GFG/1060 ./GFG/1061 ./GFG/1062 ./GFG/1063 ./GFG/1064 ./GFG/1065 ./GFG/1066 ./GFG/1067 ./GFG/1068 ./GFG/1069 ./GFG/1070 ./GFG/1071 ./GFG/1072 ./GFG/1073 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./GFG/1165 ./GFG/1166 ./GFG/1167 ./GFG/1168 ./GFG/1169 ./GFG/1170 ./GFG/1171 ./GFG/1172 ./GFG/1173 ./GFG/1174 ./GFG/1175 ./GFG/1176 ./GFG/1177 ./GFG/1178 ./GFG/1179 ./GFG/1180 ./GFG/1181 ./GFG/1182 ./GFG/1183 ./GFG/1184 ./GFG/1185 ./GFG/1186 ./GFG/1187 ./GFG/1188 ./GFG/1189 ./GFG/1190 ./GFG/1191 ./GFG/1192 ./GFG/1193 ./GFG/1194 ./GFG/1195 ./GFG/1196 ./GFG/1197 ./GFG/1198 ./GFG/1199 ./GFG/1200 ./GFG/1201 ./GFG/1202 ./GFG/1203 ./GFG/1204 ./GFG/1205 ./GFG/1206 ./GFG/1207 ./GFG/1208 ./GFG/1209 ./GFG/1210 ./GFG/1211 ./GFG/1212 ./GFG/1213 ./GFG/1214 ./GFG/1215 ./GFG/1216 ./GFG/1217 ./GFG/1218 ./GFG/1219 ./GFG/1220 ./GFG/1221 ./GFG/1222 ./GFG/1223 ./GFG/1224 ./GFG/1225 ./GFG/1226 ./GFG/1227 ./GFG/1228 ./GFG/1229 ./GFG/1230 ./GFG/1231 ./GFG/1232 ./GFG/1233 ./GFG/1234 ./GFG/1235 ./GFG/1236 ./GFG/1237 ./GFG/1238 ./GFG/1239 ./GFG/1240 ./GFG/1241 ./GFG/1242 ./GFG/1243 ./GFG/1244 ./GFG/1245 ./GFG/1246 ./GFG/1247 ./GFG/1248 ./GFG/1249 ./GFG/1250 ./GFG/1251 ./GFG/1252 ./GFG/1253 ./GFG/1254 ./GFG/1255 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23	grep	grep -r "peon" employee.txt	 <pre>Hawa@hawas-mbp ~ % grep -r "peon" employee.txt employee.txt:tarun peon sales 15000 employee.txt:sunil peon sales 13000 Hawa@hawas-mbp ~ %</pre>
24	gunzip	gunzip -t music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ gunzip -t music.txt gzip: music.txt: not in gzip format</pre>
25	perl	perl -e 'print qq{Hello World\n}'	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ perl -e 'print qq{Hello World\n}' Hello World [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
26	sed	sed 's/music/food/' music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ sed 's/music/food/' music.txt I love food. I love food. I love food.  I love food of Kartik. I love food of Kartik.  Thanks. [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
27	sort	sort names.txt	 <pre>Hawa@hawas-mbp ~ % sort names.txt Aiden Emma Jackson Liam Noah Olivia Riley Sophia Hawa@hawas-mbp ~ %</pre>
28	su	su	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ su Password: su: Authentication failure</pre>
29	umount	umount -f /mnt	umount provides the option to forcefully unmount a filesystem with option -f when the device is busy
30	uncompress	uncompress shfiles.tar.gz.Z	the uncompress command uncompresses files that have been compressed using the compress command.
31	uniq	uniq -c music.txt	 <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ uniq -c music.txt 3 I love music. 1 2 I love music of Kartik. 1 1 Thanks.</pre>

32	whoami	hsylla2@gsuad.gsu.edu	
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## Part II : 30pts

2. For each command tryout at least one example provided in **Chapter 4** of the Unix textbook. Feel free to use your own example. Show the screenshot for each command's output. Present your output in a tabular form with column 1 as index (1,2,3..), second column as the command, third as the usage, fourth as the screenshot of the output. You can just show a small snapshot for the output -- we do not need the entire screen's image.

1	chsh	chsh -u	
2	kill	kill -l	

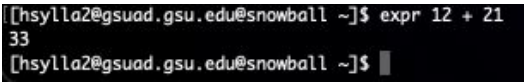


3	ps	ps -A	<p>For more details see ps(1).</p> <pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ ps -A PID TTY          TIME CMD  1 ?            00:19:57 systemd  2 ?            00:00:04 kthreadd  4 ?            00:00:00 kworker/0:0H  6 ?            00:00:12 ksoftirqd/0  7 ?            00:00:03 migration/0  8 ?            00:00:00 rcu_bh  9 ?            00:10:35 rcu_sched 10 ?            00:00:00 lru-add-drain 11 ?            00:00:08 watchdog/0 12 ?            00:00:07 watchdog/1 13 ?            00:00:04 migration/1 14 ?            00:00:10 ksoftirqd/1 16 ?            00:00:00 kworker/1:0H 17 ?            00:00:06 watchdog/2 18 ?            00:00:04 migration/2 19 ?            00:00:10 ksoftirqd/2 21 ?            00:00:00 kworker/2:0H 22 ?            00:00:06 watchdog/3 23 ?            00:00:04 migration/3 24 ?            00:00:12 ksoftirqd/3 26 ?            00:00:00 kworker/3:0H 28 ?            00:00:00 kdevtmpfs 29 ?            00:00:00 netns 30 ?            00:00:01 khungtaskd 31 ?            00:00:00 writeback 32 ?            00:00:00 kintegrityd 33 ?            00:00:00 bioset 34 ?            00:00:00 bioset 35 ?            00:00:00 bioset 36 ?            00:00:00 kblockd 37 ?            00:00:00 md 38 ?            00:00:00 edac-poller 39 ?            00:00:00 watchdogd 45 ?            00:00:10 kswapd0 46 ?            00:00:00 ksm 47 ?            00:00:10 khugepaged 48 ?            00:00:00 crypto 56 ?            00:00:00 kthrotld 58 ?            00:00:00 kmpath_rdacd 59 ?            00:00:00 kaluad 60 ?            00:00:00 kpsmoused 62 ?            00:00:00 ipv6_addrconf 75 ?            00:00:00 deferwq 112 ?           00:00:30 kauditd 300 ?           00:00:00 nfit 301 ?           00:00:00 ata_sff 302 ?           00:00:00 mpt_poll_0 303 ?           00:00:00 mpt/0 312 ?           00:00:00 scsi_eh_0 313 ?           00:00:00 scsi_tmf_0 315 ?           00:00:00 scsi_eh_1 316 ?           00:00:00 scsi_tmf_1 317 ?           00:00:00 scsi_eh_2 318 ?           00:00:00 scsi_tmf_2 321 ?           00:00:03 irq/16-vmwgfx 322 ?           00:00:00 ttm_swap 340 ?           00:00:05 kworker/2:1H 399 ?           00:00:00 kdmflush 400 ?           00:00:00 bioset 410 ?           00:00:00 kdmflush 411 ?           00:00:00 bioset 425 ?           00:00:00 bioset</pre>
4	echo	echo 'Hello'	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ echo 'Hello' Hello [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>
5	nohup	nohup bash geekfile.sh &	<pre>[hsylla2@gsuad.gsu.edu@snowball ~]\$ nohup bash geekfile.sh &amp; [2] 32169 [1] Exit 127                  \$ nohup bash simple.sh [hsylla2@gsuad.gsu.edu@snowball ~]\$ nohup: ignoring input and appending output to 'nohup.out'</pre>
6	sleep	sleep 10s	<pre>[2]+  Exit 127                  nohup bash geekfile.sh [hsylla2@gsuad.gsu.edu@snowball ~]\$ sleep 10s [hsylla2@gsuad.gsu.edu@snowball ~]\$</pre>



### Part III : 30pts

3. For each command tryout at least one example provided in **Chapter 5** of the Unix textbook. Feel free to use your own example. Show the screenshot for each command's output. Present your output in a tabular form with column 1 as index (1,2,3..), second column as the command, third as the usage, fourth as the screenshot of the output. You can just show a small snapshot for the output -- we do not need the entire screen's image.

1	expr	expr 12 + 21	
2	test	test 5 -gt 2 && echo "Yes" test 5 -gt 10 && echo "Yes"	