

# Assignment 3

1.

```
#!/bin/bash

# Check if .bashrc exists in the user's home directory
if [ -f "$HOME/.bashrc" ]; then
    echo ".bashrc file found. Appending environment variables..."

    # Append the environment variable HELLO
    echo 'export HELLO=$HOSTNAME' >> "$HOME/.bashrc"

    # Append the local variable LOCAL
    echo 'LOCAL=$(whoami)' >> "$HOME/.bashrc"

    echo "Variables HELLO and LOCAL have been added to .bashrc."
else
    echo ".bashrc file not found in the home directory."
fi
echo "Opening a new terminal..."
gnome-terminal || xterm || konsole || echo "Failed to open a terminal. Please open one manually."

```

"Update\_bashrc.sh" 19L, 612B 19,0-1 All

```
> vim Update_bashrc.sh
~ took 2m10s
> chmod +x Update_bashrc.sh
~
> ./Update_bashrc.sh
.bashrc file found. Appending environment variables...
Variables HELLO and LOCAL have been added to .bashrc.
Opening a new terminal...

Terminal
-----
aliaa@bittercup
-----
OS: Ubuntu 22.04.5 LTS x86_64
Host: G7 7500
Kernel: 6.8.0-49-generic
Uptime: 2 hours, 9 mins
Packages: 1860 (dpkg), 12 (snap)
Shell: bash 5.1.16
Resolution: 1920x1080
DE: GNOME 42.9
WM: Mutter
WM Theme: Adwaita
Theme: Yaru-red-dark [GTK2/3]
Icons: Yaru-red [GTK2/3]
Terminal: gnome-terminal
CPU: Intel i7-10750H (12) @ 5.000GHz
GPU: NVIDIA GeForce RTX 2060 Mobile
GPU: Intel CometLake-H GT2 [UHD Graphics]
Memory: 3829MiB / 15752MiB

~ took 3s
> 
```

2.

```
> compgen -c > /tmp/commands.list

~
> less /tmp/commands.list

~ took 1m47s
> 
```

```
alert
egrep
fgrep
grep
l
la
ll
ls
if
then
else
elif
fi
case
esac
for
select
while
until
do
done
in
function
/tmp/commands.list
```

3.

```
~
> nano ~/.bashrc

~ took 1m6s
> source .bashrc
```



5. a.

```
~ took 26s
> cat filename1 | cat filename2
filename2 nananana
```

b.

```
~
> ls | rm
rm: missing operand
Try 'rm --help' for more information.
```

c.

```
~
> ls /etc/passwd | wc -l
wc: -l: No such file or directory
~
```

6.

```
~ took 3s
> sudo find / -type f -name ".profile"
[sudo] password for aliaa:
/root/.profile
/etc/skel/.profile
find: '/run/user/1000/doc': Permission denied
find: '/run/user/1000/gvfs': Permission denied
/home/aliaa/.profile
/snap/core20/2434/etc/skel/.profile
/snap/core20/2434/root/.profile
/snap/core22/1612/etc/skel/.profile
/snap/core22/1612/root/.profile
/snap/core22/1722/etc/skel/.profile
/snap/core22/1722/root/.profile
```

7.

```

~
> ls -li /etc /etc/hosts
5374117 /etc/hosts

/:
 12 bin      5373953 etc      15 lib64     4194305 mnt      1 run        1 sys
8912897 boot   9306113 home    16 libx32    5767169 opt      17 sbin      3014657 tmp
3801089 cdrom    13 lib      11 lost+found 1 proc      6553601 snap   786433 usr
 1 dev      14 lib32    3407873 media    7733249 root    7340033 srv    3276801 var

/etc:
5373960 acpi              5374116 hostname      5374042 ppp
5374090 adduser.conf    5374117 hosts          5374462 prime-discrete
5373961 alsa          5374118 hosts.allow     5375216 printcap
5373962 alternatives     5374119 hosts.deny      5374156 profile
5374091 anacrontab       5374009 hp             5374043 profile.d
5374092 apg.conf        5374010 ifplugd        5374157 protocols
5373963 apm            5636107 ImageMagick-6  5374044 pulse
5373964 apparmor        5374011 init           5374045 python3
5373965 apparmor.d      5374012 init.d         5374046 python3.10
5373966 appport        5374013 initramfs-tools 5374047 rc0.d
5374093 appstream.conf 5374120 inputrc       5374048 rc1.d
5373967 apt           5374014 inserv.conf.d  5374049 rc2.d
5373968 avahi          5374015 ipp-usb        5374050 rc3.d

```

8.

```

~
> sudo ln -s /etc/passwd /boot/passwd_link

~
> ls -l /boot/passwd_link
lrwxrwxrwx 1 root root 11 Jan  1 14:47 /boot/passwd_link -> /etc/passwd

```

9.

```

~
> sudo ln /etc/passwd /boot/etc/passwd_hardlink
ln: failed to create hard link '/boot/etc/passwd_hardlink' => '/etc/passwd': No such file or directory

~
>

```

10.

```

~ took 53s
> echo 'PS2=": "' >> ~/.bashrc

~
> source ~/.bashrc
alias@bittercup

```

```
. /usr/share/bash-completion/bash_completion
elif [ -f /etc/bash_completion ]; then
. /etc/bash_completion
fi
fi
eval "$(starship init bash)"
neofetch

PS2=":"
█

^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T E
```

```
██████████ Theme: Yaru-red-dark [GTK2/3]
██████████ Icons: Yaru-red [GTK2/3]
██████████ Terminal: gnome-terminal
██████████ CPU: Intel i7-10750H (12) @ 5.000GHz
██████████ GPU: NVIDIA GeForce RTX 2060 Mobile
██████████ GPU: Intel CometLake-H GT2 [UHD Graphics]
██████████ Memory: 4120MiB / 15752MiB

~ took 3s
> echo \
:█
```