



## Introdução à Ciência da Computação – Lista 4 Shell script – parte 1

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**RA: 2024.1.08.010**

1) O que é Shell? O que é Shell Scripting? Dê exemplos de shell existentes no padrão Unix.

O Shell é um programa para o usuário personalizar o seu sistema através de uma interface de texto, sendo um ambiente para execução de programas usando linguagens de programação. Shell Scripting é a programação que é realizada no Shell, possibilitando a automatização de tarefas no Linux. No padrão Unix existem os shells, sh, bash, ksh, zsh, csh e tcsh.

2) O que são variáveis de ambiente? Qual a diferença de variáveis globais e locais?

São variáveis criadas pelo shell que contêm valores que podem ser utilizados em outros programas e shells. As variáveis globais podem ser passadas para todos os subprocessos do shell, assim como em outros shells. Já as variáveis locais ficam presentes em apenas um shell.

3) Para que servem os comandos env/printenv? Execute-os e mostre o resultado.

Ambos os comandos env/printenv mostram todas as variáveis de ambiente no terminal.

```
2024.1.08.010@suporte-OptiPlex-3050: $ env
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:@/tmp/.ICE-unix/2511,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/2511
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
SSH_AGENT_LAUNCHER=gnome-keyring
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
MATEMATICA_HOME=/usr/share/Wolfram/Documentation/13.3/en-us
LC_ADDRESS=pt_BR.UTF-8
JAVA_HOME=/usr/lib/jvm/java-17-openjdk-and64
PAYARA_HOME=/opt/payara/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR.UTF-8
SSH_AUTH_SOCK=/run/user/54306/keyring/ssh
IDEA_HOME=/opt/idea-IU-232.8660.185
XMODIFIERS=@in=ibus
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gail:atk-bridge
PWD=/home/2024.1.08.010
LOGNAME=2024.1.08.010
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=2535
XAUTHTITLE=/run/user/54306/.mutter-Xwaylandauth.KSRYM2
HOME=/home/2024.1.08.010
USERNAME=2024.1.08.010
IM_CONFIG_PHASE=1
LC_PAPER=pt_BR.UTF-8
LANG=en_US.UTF-8
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pl=40;33:so=01;35:do=01;35:bd=40;33:01:cd=40;33:01:or=40;31:01:ml=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lzh=01;31:*.lzh=01;31:*.lzh=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzt=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.t=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wln=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.x=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.ogg=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi=01;35:*.fl=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*.nka=00;36:*.mp3=00;36:*.npc=00;36:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:
XDG_CURRENT_DESKTOP=ubuntu:GNOME
VTE_VERSION=6800
MAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/16bfec16_0673_473f_9ea8_e6ae5052365e
GNOME_SETUP_DISPLAY=:1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
TERMXterm-256color
LC_IDENTIFICATION=pt_BR.UTF-8
LESSOPEN=| /usr/bin/lesspipe %s
USER=2024.1.08.010
GNOME_TERMINAL_SERVICE=:1.122
DISPLAY=:0
SHLVL=1
LC_TELEPHONE=pt_BR.UTF-8
QT_IM_MODULE=ibus
```

```
2024.1.08.010@suporte-OptiPlex-3050: $ printenv
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:@/tmp/.ICE-unix/2511,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/2511
QT_ACCESSIBILITY=1
COLORTERM=truecolor
XDG_CONFIG_DIRS=/etc/xdg/xdg-ubuntu:/etc/xdg
SSH_AGENT_LAUNCHER=gnome-keyring
XDG_MENU_PREFIX=gnome-
GNOME_DESKTOP_SESSION_ID=this-is-deprecated
MATEMATICA_HOME=/usr/share/Wolfram/Documentation/13.3/en-us
LC_ADDRESS=pt_BR.UTF-8
JAVA_HOME=/usr/lib/jvm/java-17-openjdk-and64
PAYARA_HOME=/opt/payara/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR.UTF-8
SSH_AUTH_SOCK=/run/user/54306/keyring/ssh
IDEA_HOME=/opt/idea-IU-232.8660.185
XMODIFIERS=@in=ibus
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gail:atk-bridge
PWD=/home/2024.1.08.010
LOGNAME=2024.1.08.010
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=2535
XAUTHTITLE=/run/user/54306/.mutter-Xwaylandauth.KSRYM2
HOME=/home/2024.1.08.010
USERNAME=2024.1.08.010
IM_CONFIG_PHASE=1
LC_PAPER=pt_BR.UTF-8
LANG=en_US.UTF-8
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pl=40;33:so=01;35:do=01;35:bd=40;33:01:cd=40;33:01:or=40;31:01:ml=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lzh=01;31:*.lzh=01;31:*.lzh=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzt=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.t=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wln=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.x=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.ogg=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi=01;35:*.fl=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*.nka=00;36:*.mp3=00;36:*.npc=00;36:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:
XDG_CURRENT_DESKTOP=ubuntu:GNOME
VTE_VERSION=6800
MAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/16bfec16_0673_473f_9ea8_e6ae5052365e
GNOME_SETUP_DISPLAY=:1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
TERMXterm-256color
LC_IDENTIFICATION=pt_BR.UTF-8
LESSOPEN=| /usr/bin/lesspipe %s
USER=2024.1.08.010
GNOME_TERMINAL_SERVICE=:1.122
DISPLAY=:0
SHLVL=1
LC_TELEPHONE=pt_BR.UTF-8
QT_IM_MODULE=ibus
```

4) Dê um exemplo de uma variável de ambiente (shell) e seu significado.

Como exemplo de variável do shell tem o echo, tendo a função de verificar o valor de uma outra variável e o imprimir na tela.

- 5) Crie uma variável nova no shell atual chamada teste, com o conteúdo “teste”. Mostre em tela o valor da variável criada. Verifique se ela está disponível fora do escopo do shell. Agora faça com que ela seja uma variável global e mostre ela fora do escopo do shell.

```
2024.1.08.010@suporte-OptiPlex-3050:~$ teste="teste"
2024.1.08.010@suporte-OptiPlex-3050:~$ echo $teste
teste
2024.1.08.010@suporte-OptiPlex-3050:~$ ps
  PID TTY          TIME CMD
  4609 pts/0        00:00:00 bash
  5306 pts/0        00:00:00 ps
2024.1.08.010@suporte-OptiPlex-3050:~$ export teste
2024.1.08.010@suporte-OptiPlex-3050:~$ bash
2024.1.08.010@suporte-OptiPlex-3050:~$ ps
  PID TTY          TIME CMD
  4609 pts/0        00:00:00 bash
  5311 pts/0        00:00:00 bash
  5318 pts/0        00:00:00 ps
2024.1.08.010@suporte-OptiPlex-3050:~$ echo $teste
teste
```

- 6) Abra uma nova sessão de shell a partir do mesmo terminal e verifique através do comando ps a existência das duas instâncias de shell rodando ao mesmo tempo. Mostre o valor da variável criada no exercício 5. Em seguida, saia desse shell criado e volte para o anterior. Exclua a variável e mostre que ela foi excluída.

```

2024.1.08.010@suporte-OptiPlex-3050:~$ ps
  PID TTY          TIME CMD
  4609 pts/0        00:00:00 bash
  5496 pts/0        00:00:00 ps
2024.1.08.010@suporte-OptiPlex-3050:~$ bash
2024.1.08.010@suporte-OptiPlex-3050:~$ ps
  PID TTY          TIME CMD
  4609 pts/0        00:00:00 bash
  5497 pts/0        00:00:00 bash
  5504 pts/0        00:00:00 ps
2024.1.08.010@suporte-OptiPlex-3050:~$ echo $teste
teste
2024.1.08.010@suporte-OptiPlex-3050:~$ exit
exit
2024.1.08.010@suporte-OptiPlex-3050:~$ unset teste
2024.1.08.010@suporte-OptiPlex-3050:~$ echo $teste

2024.1.08.010@suporte-OptiPlex-3050:~$ █

```

- 7) Arrays de ambiente armazenam múltiplos valores dentro de si. Declare um array de ambiente de nome vegetais e preencha com 4 valores (batata, cenoura, beterraba, inhame). Em seguida, mostre em tela o conteúdo total do array. Depois mostre o conteúdo “cenoura” em tela.

```

2024.1.08.010@suporte-OptiPlex-3050:~$ vegetaisarray=(batata cenoura beterraba inhame)
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
batata cenoura beterraba inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[2]}
beterraba
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[1]}
cenoura
2024.1.08.010@suporte-OptiPlex-3050:~$ █

```

- 8) No array de ambiente do exercício anterior, altere o valor de cenoura para chuchu. Em seguida, remova batata. Em seguida, adicione abobrinha ao array. Em seguida, exclua todo o array. Em todas as operações, mostre em tela o array para ver se as operações foram efetivadas.

```

2024.1.08.010@suporte-OptiPlex-3050:~$ vegetaisarray[1]=chuchu
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
batata chuchu beterraba inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ unset vegetaisarray[0]
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ vegtaisarray[4]=abobrinha
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ vegetaisarray[3]=abobrinha
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba abobrinha
2024.1.08.010@suporte-OptiPlex-3050:~$ vegetaisarray[0]=abobrinha
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
abobrinha chuchu beterraba abobrinha
2024.1.08.010@suporte-OptiPlex-3050:~$ vegetaisarray[3]=inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
abobrinha chuchu beterraba inhame
2024.1.08.010@suporte-OptiPlex-3050:~$ unset vegetaisarray[*]
2024.1.08.010@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
2024.1.08.010@suporte-OptiPlex-3050:~$ 

```

- 9) Crie aliases para: comando que lista o que contém no diretório do seu home, comando que permite mostrar o conteúdo de um arquivo aos poucos e comando de criação de diretório. Faça testes mostrando que os aliases funcionaram.

```

2024.1.08.010@suporte-OptiPlex-3050:~$ alias
alias alert='notify-send --urgency=low -i "${[ $? = 0 ]} && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^s*[0-9]\+s*//;s/[:;&]\s*alert$//'\''')"'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -lF'
alias ls='ls --color=auto'
2024.1.08.010@suporte-OptiPlex-3050:~$ pwd
/home/2024.1.08.010
2024.1.08.010@suporte-OptiPlex-3050:~$ l
aula/  Documents/  Intcc/  Music/  Pictures/  snap/  trabalho/
Desktop/  Downloads/  Intccbackup/  NetBeansProjects/  Public/  Templates/  Videos/
2024.1.08.010@suporte-OptiPlex-3050:~$ alias menu='ls -CF'
2024.1.08.010@suporte-OptiPlex-3050:~$ alias
alias alert='notify-send --urgency=low -i "${[ $? = 0 ]} && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^s*[0-9]\+s*//;s/[:;&]\s*alert$//'\''')"'
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -lF'
alias ls='ls --color=auto'
alias menu='ls -CF'
2024.1.08.010@suporte-OptiPlex-3050:~$ menu
aula/  Documents/  Intcc/  Music/  Pictures/  snap/  trabalho/
Desktop/  Downloads/  Intccbackup/  NetBeansProjects/  Public/  Templates/  Videos/
2024.1.08.010@suporte-OptiPlex-3050:~$ 

```

```
2024.1.08.010@suporte-OptiPlex-3050: $ alias
alias alert='notify-send --urgency=low -i "${[ $? = 0 ]} && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^\s*[0-9]\+\s*//;s/[\;|\&]|'\s*alert$//'\''")'"
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -aLF'
alias ls='ls --color=auto'
alias menu='ls -CF'
2024.1.08.010@suporte-OptiPlex-3050: $ pwd
/home/2024.1.08.010
2024.1.08.010@suporte-OptiPlex-3050: $ alias mo='more'
2024.1.08.010@suporte-OptiPlex-3050: $ alias
alias alert='notify-send --urgency=low -i "${[ $? = 0 ]} && echo terminal || echo error)" "$(history|tail -n1|sed -e '\''s/^\s*[0-9]\+\s*//;s/[\;|\&]|'\s*alert$//'\''")'"
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias grep='grep --color=auto'
alias l='ls -CF'
alias la='ls -A'
alias ll='ls -aLF'
alias ls='ls --color=auto'
alias menu='ls -CF'
alias mo='more'
```

```
2024.1.08.010@suporte-OptiPlex-3050: $ cat /etc/passwd | more
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Listing List Manager:/var/lib:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105:,:/nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,:/run/systemd:/usr/sbin/nologin
syslog:x:104:111:,:/home/syslog:/usr/sbin/nologin
_apt:x:105:65534:/:/nonexistent:/usr/sbin/nologin
tss:x:106:112:TPM software stack,,:/var/lib/tpm:/bin/false
uiddd:x:107:115:,:/run/uiddd:/usr/sbin/nologin
systemd-oom:x:108:116:systemd Userspace OOM Killer,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:117:,:/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,:/home/cups-pk-helper:/usr/sbin/nologin
rktl:x:116:123:Realtimectl,,:/proc:/usr/sbin/nologin
whoopsie:x:117:124:,:/nonexistent:/bin/false
sssd:x:118:125:SSSD system user,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,:/var/lib/openvpn/chronot:/usr/sbin/nologin
saned:x:122:129:/:/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534:/:/run/gnome-initial-setup:/bin/false
hplip:x:127:7:HPLIP system user,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
suporte:x:1000:1000:Suporte BCC,,:/home/suporte:/bin/bash
discentesbcc:x:1001:1001:Discentes do BCC,,:/home/discentesbcc:/bin/bash
rpc:x:129:65534:/:/run/rpcbind:/usr/sbin/nologin
statd:x:130:65534:/:/var/lib/nfs:/usr/sbin/nologin
sshd:x:131:65534:/:/run/ssh:/usr/sbin/nologin
openldap:x:132:137:OpenLDAP Server Account,,:/var/lib/ldap:/bin/false
postgres:x:133:139:PostgreSQL administrator,,:/var/lib/postgresql:/bin/bash
```

```

2024.1.08.010@suporte-OptiPlex-3050:~$ cat /etc/passwd | no
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:MailList Manager:/var/list:/usr/sbin/nologin
ircd:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105:/:/nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:104:111:/:/home/syslog:/usr/sbin/nologin
apt:x:105:65534:/:/nonexistent:/usr/sbin/nologin
Tss:x:106:112:TPM software stack,,,:/var/lib/tpm:/bin/false
uuldd:x:107:115:/:/run/uuldd:/usr/sbin/nologin
systemd-oom:x:108:116:systemd Userspace OOM Killer,,,:/run/systemd:/usr/sbin/nologin
tcpdump:x:109:117:/:/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:110:119:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:111:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
kernoops:x:113:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
avahi:x:114:121:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
cups-pk-helper:x:115:122:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
rtkit:x:116:123:RealtimeKit,,,:/proc:/usr/sbin/nologin
whoopsie:x:117:124:/:/nonexistent:/bin/false
sssd:x:118:125:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
speech-dispatcher:x:119:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
fwupd-refresh:x:120:126:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
nm-openvpn:x:121:127:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:122:129:/:/var/lib/saned:/usr/sbin/nologin
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534:/:/run/gnome-initial-setup:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
suporte:x:1000:1000:Suporte BCC,,,:/home/suporte:/bin/bash
discentesbcc:x:1001:1001:Discentes do BCC,,,:/home/discentesbcc:/bin/bash
_rpc:x:129:65534:/:/run/rpcbind:/usr/sbin/nologin
statd:x:130:65534:/:/var/lib/nfs:/usr/sbin/nologin
sshd:x:131:65534:/:/run/sshd:/usr/sbin/nologin
openldap:x:132:137:OpenLDAP Server Account,,,:/var/lib/ldap:/bin/false
postgres:x:133:139:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash

```

10) Crie uma função chamada `primeirafuncao`, que cria um arquivo dentro do seu home, e escreve no arquivo “Olá, Mundo!”. Faça isso de modo que toda vez que for executado o conteúdo seja anexado e não substituído.

```

2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao(){
> cat > mensagem.txt | tee -a mensagem.txt
> }

```

11) Verifique se a função anterior foi de fato criada e execute-as 5 vezes. Mostre o conteúdo do arquivo após essas execuções, comprovando o funcionamento da função.



```
2024.1.08.010@suporte-OptiPlex-3050:~$ ls
aula1    Documents  intcc      Music      Pictures  snap      trabalho
Desktop  Downloads  intccbackup NetBeansProjects Public    Templates  Videos
2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$ primeirafuncao
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$ ls
aula1    Documents  intcc      mensagem.txt  NetBeansProjects  Public  Templates  Videos
Desktop  Downloads  intccbackup Music          Pictures          snap    trabalho
2024.1.08.010@suporte-OptiPlex-3050:~$ cat < mensagem.txt
Olá, Mundo!
2024.1.08.010@suporte-OptiPlex-3050:~$
```