

Shell script – parte 1

RA: 2025.1.08.030

Shell é um programa que permite interagir com o sistema operacional do computador e o Shell Scripting é o nome da programação no Shell. Alguns exemplos de Shell existente no Unix padrão são sh, csh, bash, entre demais.

Variáveis de ambiente são valores variáveis que o shell entende para que se consiga trabalhar com ela, a executando. Enquanto as variáveis locais só podem ser usadas dentro da função do programa em que foram definidas, porém as variáveis globais podem ser usadas por qualquer função do programa.

Esses comandos mostram as variáveis de ambiente no terminal.

```

xry15.1.08.83@suporte-OptiPlex-3050: $ env
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276
OJ_ACCESSIBILITY=
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
MATHEMATICA_HOME=/usr/share/NetFran/Documentation/13.3/en-us
C_ADDRS=opt_BR-UT-F-8
JAVA_HOME=/usr/lib/jvm/java-7-openjdk-amd64
PAYARA_HOME=/opt/payara/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR-UT-F-8
SSH_AUTH_SOCK=/run/user/58248/keyring/ssh
IDEA_HOME=/opt/idea-1U-232.8660.185
XMODIFIERS=@fn=ibus
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR-UT-F-8
GTK_MODULES=gall:atk-bridge
PkgInfo/2025.1.08.030
LOGNAME=2025.1.08.030
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=5299
XAUTHORITY=/run/user/58248/.mutter-kwaylandauth.Mv4T42
HOME=/home/2025.1.08.030
USERNAME=2025.1.08.030
IN_CONFIG_PHASE=1
LC_PAPER=pt_BR-UT-F-8
LANG=en_US.UTF-8
LC_CTYPE=en_US.UTF-8
xry15.1.08.83@suporte-OptiPlex-3050:~$

```

```

2025.1.08.030@suporte-OptiPlex-3050: $ printenv
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:@/tmp/.ICE-unix/5276,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276
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
MATHEMATICA_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/payara6/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR.UTF-8
SSH_AUTH_SOCK=/run/user/58248/keyring/ssh
IDEA_HOME=/opt/idea-IU-232.8660.185
XMODIFIERS=@xkb:us
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gall:atk-bridge
PWD=/home/2025.1.08.030
LOGNAME=2025.1.08.030
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=5299
XAUTHORITY=/run/user/58248/.nutter-Xwaylandauth.MV4T42
HOME=/home/2025.1.08.030
USERNAME=2025.1.08.030
I18N_CONFIG_PHASE=1
LC_PAPER=pt_BR.UTF-8
LANG=en_US.UTF-8
LS_COLORS=rs=0:di=01;34:ln=01;36:rh=00;pt=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:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=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:*.tztst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz2=01;31:*.tbz=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:*.wlm=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:*.xbm=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:*.nsv=01;35:*.npg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=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:*.fli=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.enf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mld=00;36:*.mld=00;36:*.nka=00;36:*.nps=00;36:*.nps=00;36:*.opus=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:
XDG_CURRENT_DESKTOP=ubuntu:GNOME
VTE_VERSION=6800
WAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/ba3afecf_bb2b_44a7_8680_cc157d292500
GNOME_SETUP_DISPLAY=:1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
TERM=xterm-256color
LC_IDENTIFICATION=pt_BR.UTF-8
LESSOPEN= /usr/bin/lesspipe %s
USER=2025.1.08.030
GNOME_TERMINAL_SERVICE=:1.146
DISPLAY=:0
SHULV=1
LC_TELEPHONE=pt_BR.UTF-8

```

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

Um exemplo de variável de ambiente é PATH essa variável lista os diretórios que o sistema verifica para que encontre programas executáveis.

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.

```

2025.1.08.030@suporte-OptiPlex-3050: $ teste=teste
2025.1.08.030@suporte-OptiPlex-3050: $ echo $teste
teste
2025.1.08.030@suporte-OptiPlex-3050: $ env
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:@/tmp/.ICE-unix/5276,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276
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
MATHEMATICA_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/payara6/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR.UTF-8
SSH_AUTH_SOCK=/run/user/58248/keyring/ssh
IDEA_HOME=/opt/idea-IU-232.8660.185
XMODIFIERS=@xkb:us
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gall:atk-bridge
PWD=/home/2025.1.08.030
LOGNAME=2025.1.08.030
XDG_SESSION_DESKTOP=ubuntu
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=5299
XAUTHORITY=/run/user/58248/.nutter-Xwaylandauth.MV4T42
HOME=/home/2025.1.08.030
USERNAME=2025.1.08.030
I18N_CONFIG_PHASE=1
LC_PAPER=pt_BR.UTF-8
LANG=en_US.UTF-8
LS_COLORS=rs=0:di=01;34:ln=01;36:rh=00;pt=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:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=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:*.tztst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz2=01;31:*.tbz=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:*.wlm=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:*.xbm=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:*.nsv=01;35:*.npg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=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:*.fli=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.enf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mld=00;36:*.mld=00;36:*.nka=00;36:*.nps=00;36:*.nps=00;36:*.opus=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:

```

```
*.mpeg=01;35:*.n2v=01;35:*.nkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=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:*.avl=01;35:*.fll=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.enf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.m4b=00;36:*.m1d=00;36:*.m1d=00;36:*.nka=00;36:*.mp3=00;36:*.mpc=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
WAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/da97ab49_1510_40a8_8ee1_9a114c4f3a6f
GNOME_SETUP_DISPLAY=1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
LC_IDENTIFICATION=pt_BR.UTF-8
TERM=xterm-256color
LESSOPEN=| /usr/bin/lesspipe %s
USER=2025.1.08.030
GNOME_TERMINAL_SERVICE=:1.151
DISPLAY=:0
SHLVL=2
LC_TELEPHONE=pt_BR.UTF-8
QT_IM_MODULE=ibus
LC_MEASUREMENT=pt_BR.UTF-8
XVFN_HOME=/opt/apache-naven-3.9.3
LC_CTYPE=pt_BR.UTF-8
XDG_RUNTIME_DIR=/run/user/58248
LC_TIME=pt_BR.UTF-8
XDG_DATA_DIRS=/usr/share/ubuntu:/usr/local/share:/usr/share:/var/lib/napd/desktop
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/bin:/usr/games:/snap/bin:/snap/bin:/usr/lib/jvm/java-17-openjdk-and64/bin:/opt/apache-naven-3.9.3/bin:/opt/idea-IU-232.8660.185/bin:/opt/payara6/glassfish/bin
GDMSSESSION=ubuntu
DBUS_SESSION_BUS_ADDRESS=unix:path=/run/user/58248/bus
LC_NUMERIC=pt_BR.UTF-8
_=usr/bin/env
```

```
2025.1.08.030@suporte-OptiPlex-3050: $ export teste
2025.1.08.030@suporte-OptiPlex-3050: $ env
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276
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/payara6/glassfish
GNOME_SHELL_SESSION_MODE=ubuntu
LC_NAME=pt_BR.UTF-8
SSH_AUTH_SOCK=/run/user/58248/keyring/ssh
IDEA_HOME=/opt/idea-IU-232.8660.185
XMODIFIERS=@Im=ibus
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gail:atk-bridge
PWD=/home/2025.1.08.030
XDG_SESSION_DESKTOP=ubuntu
LOGNAME=2025.1.08.030
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=5299
XAUTHORITY=/run/user/58248/.mutter-Xwaylandauth.MV4742
HOME=/home/2025.1.08.030
USER=2025.1.08.030
IM_CONFIG_PHASE=1
LANG=en_US.UTF-8
LC_PAPER=pt_BR.UTF-8
LC_COLORS=rs=0;dl=01;34:ln=01;36:nh=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:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.diz=01;31:*.gz=01;31:*.lzo=01;31:*.l13i=01;31:*.xz=01;31:*.zst=01;31:*.tzt=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.t2=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:*.cpt=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wlm=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.njpg=01;35:*.njpeg=01;35:*.gif=01;35:*.bnp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcc=01;35:*.nrv=01;35:*.nrv=01;35:*.mpeg=01;35:*.n2v=01;35:*.nkv=01;35:*.webm=01;35:*.webp=01;35:*.ogm=01;35:*.mp4=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:*.avl=01;35:*.fll=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.enf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.m4b=00;36:*.m1d=00;36:*.m1d=00;36:*.nka=00;36:*.mp3=00;36:*.mpc=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
WAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/da97ab49_1510_40a8_8ee1_9a114c4f3a6f
GNOME_SETUP_DISPLAY=1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
LC_IDENTIFICATION=pt_BR.UTF-8
TERM=xterm-256color
LESSOPEN=| /usr/bin/lesspipe %s
USER=2025.1.08.030
GNOME_TERMINAL_SERVICE=:1.151
DISPLAY=:0
SHLVL=2
LC_TELEPHONE=pt_BR.UTF-8
QT_IM_MODULE=ibus
LC_MEASUREMENT=pt_BR.UTF-8
XVFN_HOME=/opt/apache-naven-3.9.3
LC_CTYPE=pt_BR.UTF-8
XDG_RUNTIME_DIR=/run/user/58248
LC_TIME=pt_BR.UTF-8
XDG_DATA_DIRS=/usr/share/ubuntu:/usr/local/share:/usr/share:/var/lib/napd/desktop
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/snap/bin:/usr/lib/jvm/java-17-openjdk-and64/bin:/opt/apache-naven-3.9.3/bin:/opt/idea-IU-232.8660.185/bin:/opt/payara6/glassfish/bin
GDMSSESSION=ubuntu
DBUS_SESSION_BUS_ADDRESS=unix:path=/run/user/58248/bus
teste=teste
LC_NUMERIC=pt_BR.UTF-8
_=usr/bin/env
2025.1.08.030@suporte-OptiPlex-3050: $
```

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.

```
2025.1.08.030@suporte-OptiPlex-3050: $ bash
2025.1.08.030@suporte-OptiPlex-3050: $ ps
PID TTY          TIME CMD
8308 pts/0    00:00:00 bash
8595 pts/0    00:00:00 bash
8881 pts/0    00:00:00 bash
8892 pts/0    00:00:00 ps
2025.1.08.030@suporte-OptiPlex-3050: $ echo $teste
teste
2025.1.08.030@suporte-OptiPlex-3050: $ exit
exit
2025.1.08.030@suporte-OptiPlex-3050: $ unset teste
2025.1.08.030@suporte-OptiPlex-3050: $ env
SHELL=/bin/bash
SESSION_MANAGER=local/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276,unix/suporte-OptiPlex-3050:/tmp/.ICE-unix/5276
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
MATHEMATICA_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/58248/keyring/ssh
IDEA_HOME=/opt/idea-U-232.8660.185
XMODIFIERS=@xkb:us
DESKTOP_SESSION=ubuntu
LC_MONETARY=pt_BR.UTF-8
GTK_MODULES=gallatki-bridge
PWD=/home/2025.1.08.030
XDG_SESSION_DESKTOP=ubuntu
LOGNAME=2025.1.08.030
XDG_SESSION_TYPE=wayland
SYSTEMD_EXEC_PID=5299
XAUTHORITY=/run/user/58248/.nutter-Xwaylandauth.MVAT42
HOME=/home/2025.1.08.030
USERNAME=2025.1.08.030
IM_CONFIG_PHASE=1
LANG=en_US.UTF-8
LC_PAPER=pt_BR.UTF-8
LC_CATEGORIES=0:dt=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*;tz=01;31;*.arc=01;31*;arj=01;31*;tarz=01;31*;lha=01;31*;lzma=01;31*;tlz=01;31*;txz=01;31*;tz=01;31*;zip=01;31*;z=01;31*;gz=01;31*;lrz=01;31*;lzh=01;31;*.lzo=01;31*;xz=01;31*;z=01;31*;bz2=01;31*;bz=01;31*;tbz=01;31*;tarbz=01;31*;rpm=01;31*;jar=01;31*;war=01;31*;ear=01;31*;sar=01;31*;rar=01;31;*.7z=01;31*;cpio=01;31*;cpio=01;31*;rz=01;31*;cab=01;31*;wim=01;31*;swm=01;31*;dwm=01;31*;asf=01;31*;jpg=01;35*;jpeg=01;35*;mpj=01;35*;gif=01;35*;bmp=01;35*;pbm=01;35*;pgm=01;35*;ppm=01;35*;tga=01;35*;xbm=01;35*;xpm=01;35*;tif=01;35*;tiff=01;35*;png=01;35*;svg=01;35*;svgt=01;35*;pcx=01;35*;mpeg=01;35*;mpg=01;35*;mzv=01;35*;mkv=01;35*;webm=01;35*;webp=01;35*;ogm=01;35*;mp=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*;fli=01;35*;flv=01;35*;gl=01;35*;xcf=01;35*;xwd=01;35*;yuv=01;35*;cgm=01;35*;enf=01;35*;ogv=01;35*;ogg=01;35*;aac=00;36*;au=00;36*;flac=00;36*;m4a
*flc=01;35*;avi=01;35*;fli=01;35*;flv=01;35*;gl=01;35*;xcf=01;35*;xwd=01;35*;yuv=01;35*;cgm=01;35*;enf=01;35*;ogv=01;35*;ogg=01;35*;aac=00;36*;au=00;36*;flac=00;36*;m4a
*flc=01;35*;avi=01;35*;fli=01;35*;flv=01;35*;gl=01;35*;xcf=01;35*;xwd=01;35*;yuv=01;35*;cgm=01;35*;enf=01;35*;ogv=01;35*;ogg=01;35*;aac=00;36*;au=00;36*;flac=00;36*;m4a
*oc=00;36*;mid=00;36*;midi=00;36*;mp3=00;36*;mpc=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=Xubuntu;GNOME
YTE_VERSION=0.000
WAYLAND_DISPLAY=wayland-0
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/da97ab49_1510_40a8_bee1_9a114cf3a6f
GNOME_SETUP_DISPLAY=:1
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_SESSION_CLASS=user
LC_IDENTIFICATION=pt_BR.UTF-8
TERM=xterm-256color
LESSOPEN=| /usr/bin/lesspipe %s
USER=2025.1.08.030
GNOME_TERMINAL_SERVICE=:1.51
DISPLAY=:0
SHLV=L2
LC_TELEPHONE=pt_BR.UTF-8
QT_IM_MODULE=ibus
LC_MEASUREMENT=pt_BR.UTF-8
MWN_HOME=/opt/apache-naven-3.9.3
LC_CTYPE=pt_BR.UTF-8
XDG_RUNTIME_DIR=/run/user/58248
LC_TIME=pt_BR.UTF-8
XDG_DATA_DIRS=/usr/share/ubuntu:/usr/local/share:/usr/share:/var/lib/snap/desktop
32_Rebo_185/btn:/opt/payara/glassfish/btn
GMSSESSION=ubuntu
DBUS_SESSION_BUS_ADDRESS=unix:path=/run/user/58248/bus
LC_NUMERIC=pt_BR.UTF-8
_/usr/bin/env
2025.1.08.030@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.

```
2025.1.08.030@suporte-OptiPlex-3050:~$ vegetaisarray=(batata cenoura beterraba inhame)
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
batata cenoura beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[1]}
cenoura
```

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.

```

2025.1.08.030@suporte-OptiPlex-3050:~$ vegetaisarray=(batata, cenoura, beterraba, inhame)
2025.1.08.030@suporte-OptiPlex-3050:~$ echo $vegetais
batata cenoura beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ unset vegetais
2025.1.08.030@suporte-OptiPlex-3050:~$ vegetaisarray=(batata cenoura beterraba inhame)
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
batata cenoura beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[1]}
cenoura
2025.1.08.030@suporte-OptiPlex-3050:~$ vegetaisarray[1]=chuchu
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
batata chuchu beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ unset vegetaisarray[0]
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba inhame
2025.1.08.030@suporte-OptiPlex-3050:~$ vegetaisarray[3]=abobrinha
2025.1.08.030@suporte-OptiPlex-3050:~$ echo ${vegetaisarray[*]}
chuchu beterraba inhame abobrinha
2025.1.08.030@suporte-OptiPlex-3050:~$

```

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.

```

2025.1.08.030@suporte-OptiPlex-3050:~$ alias home='ls -l'
2025.1.08.030@suporte-OptiPlex-3050:~$ home
total 52
-rw-r--r-- 1 2025.1.08.030 Domain Users 46 mar 24 10:35 arquivo1.txt
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Desktop
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Documents
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 27 10:01 Downloads
drwxr-xr-x 3 2025.1.08.030 Domain Users 4096 mar 17 10:44 intcc
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Music
drwxr-xr-x 13 2025.1.08.030 Domain Users 4096 abr 4 08:07 NetBeansProjects
drwxr-xr-x 3 2025.1.08.030 Domain Users 4096 mar 13 09:44 Pictures
-rw-r--r-- 1 2025.1.08.030 Domain Users 78 abr 7 11:50 primeirafuncao
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Public
drwx----- 4 2025.1.08.030 Domain Users 4096 mar 13 09:09 snap
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Templates
drwxr-xr-x 2 2025.1.08.030 Domain Users 4096 mar 13 08:04 Videos
2025.1.08.030@suporte-OptiPlex-3050:~$ alias mo='more'
2025.1.08.030@suporte-OptiPlex-3050:~$ mo
more: bad usage
Try 'more --help' for more information.
2025.1.08.030@suporte-OptiPlex-3050:~$ mo /home/2025.1.08.030

*** /home/2025.1.08.030: directory ***

2025.1.08.030@suporte-OptiPlex-3050:~$ alias dir='mkdir'
2025.1.08.030@suporte-OptiPlex-3050:~$ dir teste
2025.1.08.030@suporte-OptiPlex-3050:~$ ls
arquivo1.txt  Downloads  NetBeansProjects  Public  teste
Desktop      intcc      Pictures          snap   Videos
Documents    Music     primeirafuncao   Templates

```

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.


```

2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao(){
> cd/home/2025.1.08.030@suporte-OptiPlex-3050;
> echo 'Olá, Mundo!' >> primeirafuncao
> }
2025.1.08.030@suporte-OptiPlex-3050:~$ ls
arquivo1.txt  Downloads  NetBeansProjects  Public  Videos
Desktop      intcc      Pictures          snap
Documents    Music      primeirafuncao    Templates
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
bash: cd/home/2025.1.08.030@suporte-OptiPlex-3050: No such file or directory
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
bash: cd/home/2025.1.08.030@suporte-OptiPlex-3050: No such file or directory
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
bash: cd/home/2025.1.08.030@suporte-OptiPlex-3050: No such file or directory
2025.1.08.030@suporte-OptiPlex-3050:~$ cat primeirafuncao
Olá, Mundo!
Olá, Mundo!
Olá, Mundo!

```

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.

```

2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
primeirafuncao: command not found
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
primeirafuncao: command not found
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
primeirafuncao: command not found
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
primeirafuncao: command not found
2025.1.08.030@suporte-OptiPlex-3050:~$ primeirafuncao
primeirafuncao: command not found
2025.1.08.030@suporte-OptiPlex-3050:~$ cat primeirafuncao
Olá, Mundo!
Olá, Mundo!
Olá, Mundo!
Olá, Mundo!
Olá, Mundo!

```