# 1 Shell CheatSheet

## LANGUAGES

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- PDF Link: cheatsheet-shell-A4.pdf, Category: languages
- Blog URL: https://cheatsheet.dennyzhang.com/cheatsheet-shell-A4
- $\bullet$  Related posts: Vim CheatSheet, #denny-cheatsheets

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### 1.1 Basic

Name	Comment
Redirect stdout/stderr	ls /tmp >/dev/null 2>&1
Deal with filename	basename \$f, dirname \$f
Use timeout: avoid command hang	timeout 10 sh -c 'ls -lt'
Restart shell without killing terminal	exec -l \$SHELL
Run sub-shell	echo \$BASH_SUBSHELL; ( echo "Running in subshell: \$BASH_SUBSHELL" )
Set pipefail	set -ueoxv pipefail, set +ueoxv pipefail
Shell match regexp	echo \$str, then grep "\$regexp"
Shell match regexp	expr match " $date$ " " $[0-9]\{8}$ " >/dev/null && echo yes
Run static code check	Link: shellcheck
Show date in utc	date -u
Check file type of a given type	file /etc/hosts
Check command type of a command	type echo

# 1.2 Shell script

Name	Comment
Trap exit signal	code/trap-exit.sh
Shell retry	code/shell-retry.sh
Check if a string contains a substring	$\operatorname{code}/\operatorname{string-contains.sh}$
Check if a string in a list	code/string-in-list.sh, Link: stackoverflow
Log with timestamp	$\operatorname{code/log\text{-}with\text{-}timestamp.sh}$
Quit if current user is not root	$\operatorname{code}/\operatorname{assert}$ -user-root.sh
Set -x on fly	$\operatorname{code/restore-debug-output.sh}$
Shell run curl check	$\operatorname{code}/\operatorname{curl-test.sh}$

### 1.3 Environment variables

Name	Comment
List all environment variables	export
Define a new env variable	export NAME1="value1"
Define a variable with default value of others	export MYVAR="\${MYVAR:-\$OTHERVAR}"

## 1.4 iterm

Name	Comment
Delete a word	$\operatorname{Ctrl+w}$

### 1.5 zsh

Name	Comment
Disable all zsh's autocorrect	In ~/.zshrc, unsetopt correct_all
Disable a given autocorrect	In ~/.zshrc, alias ssh='nocorrect ssh'. zsh <sub>disable</sub>

## 1.6 GNU tools

#### 1.6.1 Echo string

Name	Comment
Echo red text	echo -e "hello,[0;31m there [0;31m"
Echo multiple lines	echo -e "hello,"
Echo bold text	echo -e hello, " $033[1m$ This is bold text. $033[0m]$ "
Echo underlined text	echo -e hello, " $\033[4m$ This is underlined text. $\033[0m]$ "

### 1.7 Shell Basic

#### 1.7.1 cd

Name	Comment
Go to given folder	cd /var/log/
Go to folder in subshell	(cd /var/log/ && ls) After this, PWD won't be changed
Go to home	cd
Go to parent folder	cd
Go to previous folder	cd -

### 1.7.2 Numeric

	Comment	
*	expr 5 \* 4	
+	let $z=x+y$ , $z=$x+$y$	
==	int1 -eq int2, [ \$? -eq 0 ] && echo "good"	
>=	int1 -ge =int2	
>	int1 -gt =int2	
$\leq =$	<pre>int1 -le =int2</pre>	
<	<pre>int1 -lt =int2</pre>	
!=	int1 -ne =int2	

### 1.7.3 xargs

```
# Run grep for files filtered by find
find /var/log -name "*.log" | xargs grep -i error
# Loop with pipes
cat /etc/passwd | awk -F':' '{print $1}' | xargs -I{} sudo -l -U {} | grep -v "not allowed to"
```

## 1.8 Scripts

• Compare command output

```
[ 0 -eq f -print | wc -1) ]
```

• get ip from eth0

/sbin/ifconfig eth0 | grep 'inet addr:' | cut -d: -f2 | awk '{ print \$1}'

#### 1.9 More Resources

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