

# 1 Shell CheatSheet

## LANGUAGES

- PDF Link: [cheatsheet-shell-A4.pdf](#), Category: languages
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-shell-A4>
- Related posts: Vim CheatSheet, #denny-cheatsheets

File me Issues or star this repo.

## 1.1 Basic

Name	Comment
Redirect stdout/stderr	<code>ls /tmp &gt;/dev/null 2&gt;&amp;1</code>
Deal with filename	<code>basename \$f, dirname \$f</code>
Use timeout: avoid command hang	<code>timeout 10 sh -c 'ls -lt'</code>
Restart shell without killing terminal	<code>exec -l \$SHELL</code>
Run sub-shell	<code>echo \$BASH_SUBSHELL; ( echo "Running in subshell: \$BASH_SUBSHELL" )</code>
Set pipefail	<code>set -ueoxv pipefail, set +ueoxv pipefail</code>
Run static code check	Link: <a href="#">shellcheck</a>

## 1.2 Shell script

Name	Comment
Trap exit signal	<code>code/trap-exit.sh</code>
Shell retry	<code>code/shell-retry.sh</code>
Check if a string contains a substring	<code>code/string-contains.sh</code>
Check if a string in a list	<code>code/string-in-list.sh</code> , Link: <a href="#">stackoverflow</a>
Log with timestamp	<code>code/log-with-timestamp.sh</code>
Quit if current user is not root	<code>code/assert-user-root.sh</code>
Set -x on fly	<code>code/restore-debug-output.sh</code>

## 1.3 Environment variables

Name	Comment
List all environment variables	<code>export</code>
Define a new env variable	<code>export NAME1="value1"</code>

## 1.4 zsh

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

## 1.5 GNU tools

### 1.5.1 Echo string

Name	Comment
Echo red text	<code>echo -e "hello,[0;31m there [0;31m"</code>
Echo multiple lines	<code>echo -e "hello,"</code>
Echo bold text	<code>echo -e hello, "\033[1mThis is bold text.\033[0m"</code>
Echo underlined text	<code>echo -e hello, "\033[4mThis is underlined text.\033[0m"</code>

## 1.6 Shell Basic

### 1.6.1 cd

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

### 1.6.2 Numeric

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

### 1.6.3 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"
```

## 1.7 Scripts

- Compare command output

```
[ 0 -eq $(find ./data -name "*.txt" -type f -print | wc -l) ]
```

- get ip from eth0

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

## 1.8 More Resources

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