

Unix-like Operating Systems

Exit status, command test, flow control.

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Exit status

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Wrong permissions.

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Exit by signal.



# Command test and if

- Create a shell script `list1.bash` that requires one argument.
  - If the argument is missing or if there are more arguments, then the script prints the following error and exits with exit status 1.

```
Usage: ./list1.bash directory_name
```

- If the argument is a name of a directory and the directory is readable, then the scripts lists its contents by command `ls -la`. Otherwise the script prints the following error and exits with exit status 2.

```
./list1.bash: "foo" is not readable directory
```

- Change the access permissions of the script by the following command

```
chmod 755 list1.bash
```

- Run the script by the following command

```
./list1.bash
```

# Command test and if

```
#!/bin/bash

#--- Checking Arguments ---
if [$# != 1]
then
 echo "Usage: $0 directory_name" >&2
 exit 1
fi

if [-d "$1" -a -r "$1"]
#--- For readable directory
then
 ls -la "$1"

#--- Otherwise
else
 echo "$0: \"$1\" is not readable directory" >&2
 exit 2
fi
```

# Loop for

- Modify previous shell script such that for every regular readable file in the directory it will print file type (output from command file).
- Example of script output

```
$> ../list2.bash /usr/bin/ | head

/usr/bin/[: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically linked
/usr/bin/411toppm: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically
/usr/bin/7z: POSIX shell script, ASCII text executable
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/usr/bin/a2p: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically
/usr/bin/aa-easyprof: Python script, ASCII text executable
/usr/bin/abs2rel: Lua script, ASCII text executable
/usr/bin/aclocal: awk script, ASCII text
/usr/bin/aclocal-1.13: awk script, ASCII text
/usr/bin/aconnect: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically
```

# Loop for

```
...
if [-d "$1" -a -r "$1"]
 ### For readable directory
 then

 for i in "${1%/}"/* # Remove matching suffix pattern
 do
 if [-f "$i" -a -r "$i"]
 then
 file "$i"
 fi
 done

 ### Otherwise
 else
 echo "$0: \"$1\" is not readable directory" >&2
 exit 2
 fi
```