LESSON 5

script.sh

```
for f in *.log; do
  gzip "$f"
done
```



Loops

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BASH & ZSH SCRIPTING

LESSON 5

Loops

for, while, until, ranges, reading files line by line, break and continue

for Loops

for.sh

```
for f in *.jpg; do
    convert "$f" -resize 50% "small_$f"
done

for i in {1..5}; do echo "server$i"; done

for ((i = 0; i < 3; i++)); do echo $i; done   # C style
```

- A for loop runs once for each word in a list. Loop over file names with a star pattern, …
- The body sits between do and done. Quote the loop variable when it holds file names.

01

while and until

wait.sh

```
count=0
while [[ $count -lt 3 ]]; do
    echo "count = $count"; ((count++))
done

until curl -s http://localhost:8080 > /dev/null; do
    echo "waiting for server..."; sleep 2
done
```

- while repeats as long as a command succeeds, and until repeats until it succeeds. They are …
- Here the script waits until a web server answers, trying again every two seconds.

02

Reading a File Line by Line

servers.sh

```
while IFS= read -r host; do
    [[ -z "$host" || "$host" == \#* ]] && continue   # skip blanks, comments
    if ping -c1 -W1 "$host" > /dev/null; then
        echo "$host up"
    else
        echo "$host DOWN"
    fi
done < servers.txt
```

- The safe pattern is while I F S equals read dash r line, then redirect the file into done. …
- Use it to process lists of servers, users or URLs one at a time.

03

break and continue

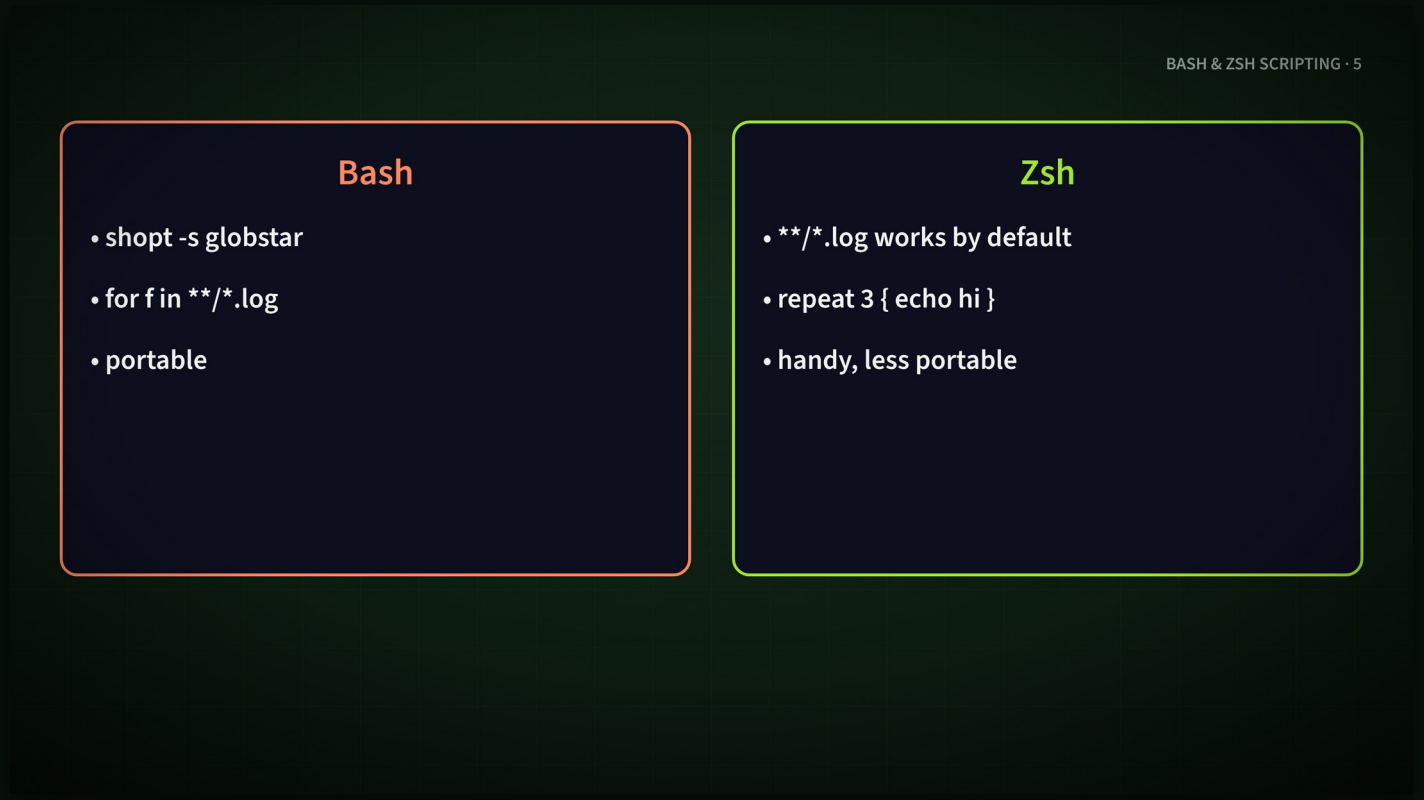
find_error.sh

```
for f in logs/*.log; do
    [[ -s "$f" ]] || continue        # skip empty files
    if grep -q ERROR "$f"; then
        echo "first error in $f"
        break
    fi
done
```

- continue skips to the next round of the loop, and break leaves the loop completely.
- Here we skip empty files and stop as soon as we find the first file that contains the word …

04

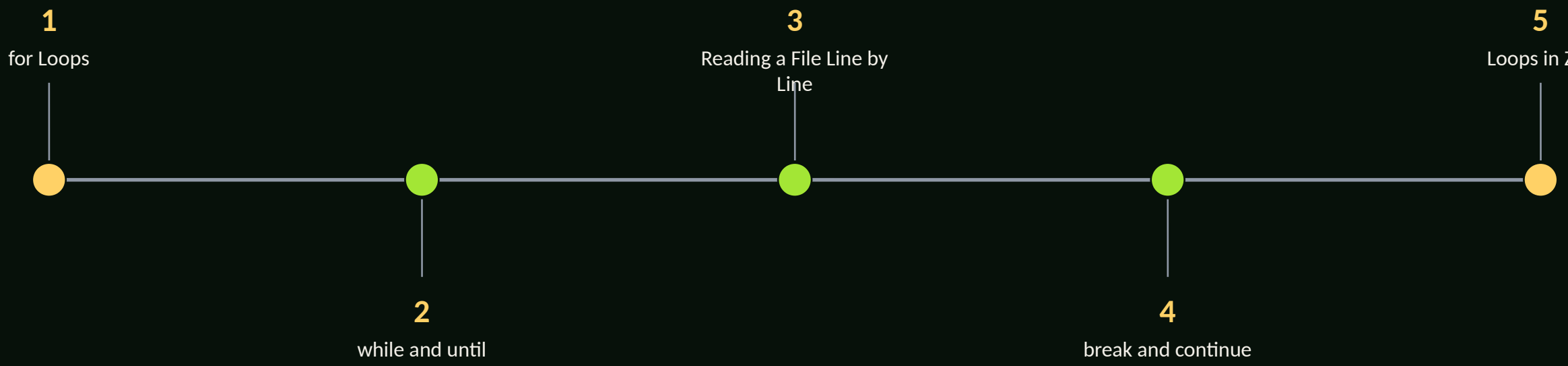
Loops in Zsh



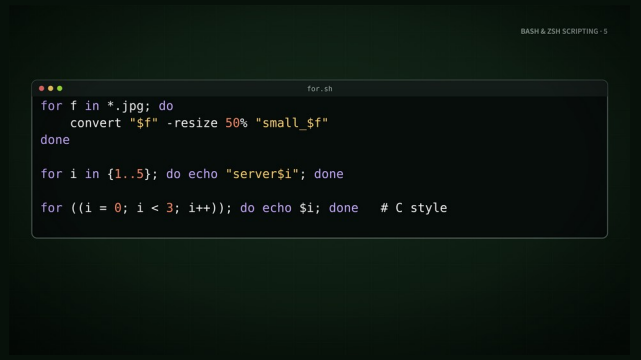
- The same loops work in Zsh. Zsh adds powerful globbing: star star slash star dot log finds …
- Zsh also has short forms like repeat three, but for scripts others will run, stick to the …

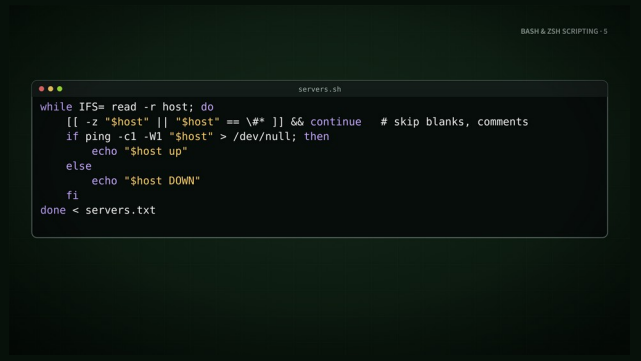
05

Lesson Map


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while and until
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Reading a File Line by Line
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break and continue
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Loops in Zsh

Sources and Further Reading





Thank you for watching

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