Command Line: Bash Scripting Workshop Handout

Download and unzip data file: http://bit.ly/shell-workshop-data

Note: Indented lines should be typed in the file.

	1	`cd shell-novice-data/bash-scripting/molecules/`
First x lines after header	2	`head -n 12 octane.pdb`
	3	`head -n 12 octane.pdb | tail -n 10`
Create script	4	`vi middle.sh`
	5	`      head -n 12 octane.pdb | tail -n 10`
	6	` bash middle.sh`
Script arguments	7	`vi middle.sh`
	8	`      head -n 12 $1 | tail -n 10`
	9	`bash middle.sh octane.pdb`
	10	`bash middle.sh "high octane.pdb"`
Variable quoting	11	`vi middle.sh`
	12	`      head -n 12 "$1" | tail -n 10`
	13	` bash middle.sh "high octane.pdb"`
Multiple arguments	14	`vi middle.sh`
	15	`      # Select lines from the middle of a file.`
	16	`      # Usage: bash middle.sh filename end_line num_lines`
	17	`      head -n "$2" "$1" | tail -n "$3"`
	18	`bash middle.sh pentane.pdb 12 10`
	19	` bash middle.sh pentane.pdb 19 17`
Looping	20	`cd ../creatures`
	21	` vi list_creatures.sh`
	22	`      for filename in basilisk.dat unicorn.dat`
	23	`      do`
	24	`         head -n 2 "$filename" | tail -n 1`
	25	`       done`
	26	` bash list_creatures.sh`

Wildcards	27	`vi copy_files.sh`
	28	`        for filename in *.dat`
	29	`        do`
	30	`          echo "$filename"`
	31	`        done`
	32	`bash copy_files.sh`
Building up a script	33	`vi copy_files.sh`
with "echo"	34	`        for filename in *.dat`
	35	`        do`
	36	`            echo 'cp "$filename" original-"$filename"'`
	37	`        done`
	38	`bash copy_files.sh`
	39	`vi copy_files.sh`
Variable arguments	40	`        for filename in $@`
	41	`        do`
	42	`            echo 'cp "$filename" original-"$filename"'`
	43	`            cp "$filename" original-"$filename"`
	44	`        done`
	45	`bash copy_files.sh *.dat`
	46	`rm original*.dat`
	47	`ls -l copy_files.sh`
Permissions	48	`chmod +x copy_files.sh`
	49	`vi copy_files.sh`
"shebang" lines	50	`        #!/usr/bin/env bash`
	51	`        for filename in $@`
	52	`        do`
	53	`            echo 'cp "$filename" original-"$filename"'`
	54	`            cp "$filename" original-"$filename"`
	55	`        done`
	56	`./copy_files.sh *.dat`