

Introduction to Shell Scripting

Control Structures

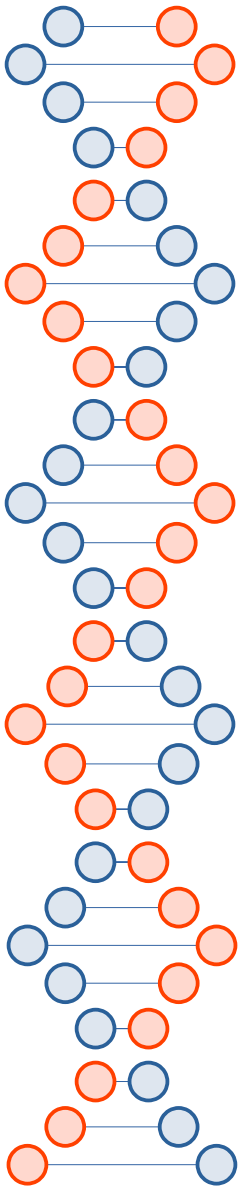
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Students will be able to

- Case/esac
- Test, [, [[
- For/While loops
- Select
- Supply variables to scripts

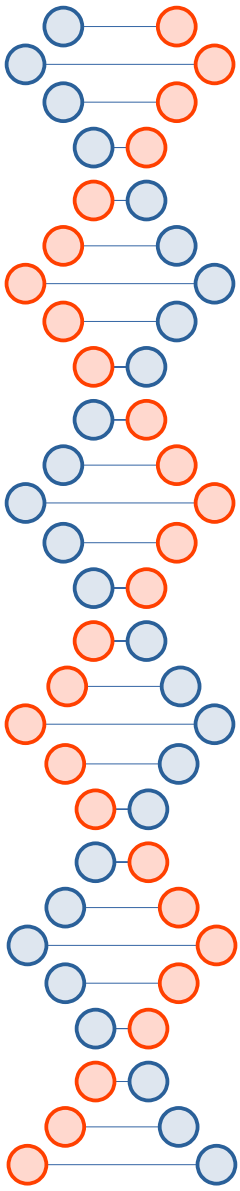


Swoobat



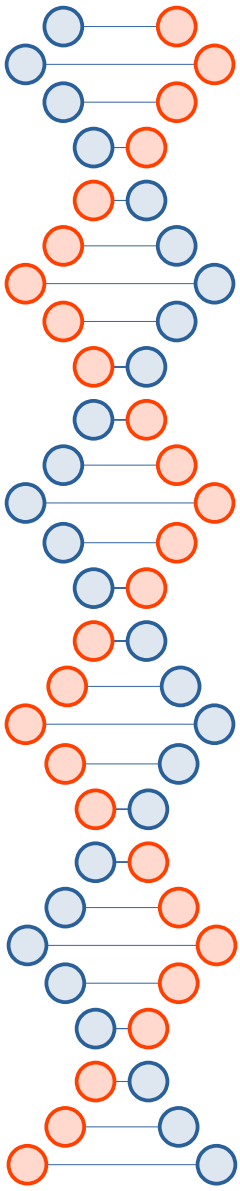
Test statements

- Test and [are almost the same
- [[is a Bashism with weird quoting rules
- There are too many switches!
- **man test** covers most of these
- Use them in if/else statements
- <https://linuxhint.com/bash-test-command/>



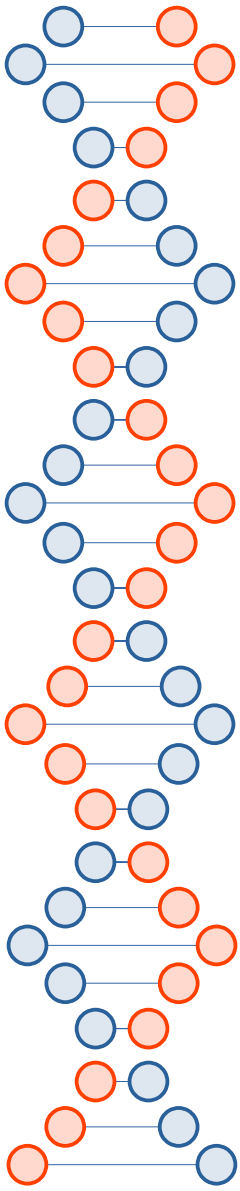
For loop

- **for name [[in [word ...]] ;] do list ; done**
 - Do the list of commands for each word in word
- **for ((expr1 ; expr2 ; expr3)) ; do list ; done**
 - Evaluate expr1
 - If expr2 is true, do the list of commands
 - Evaluate expr3
- <https://www.redhat.com/sysadmin/bash-scripting-loops>



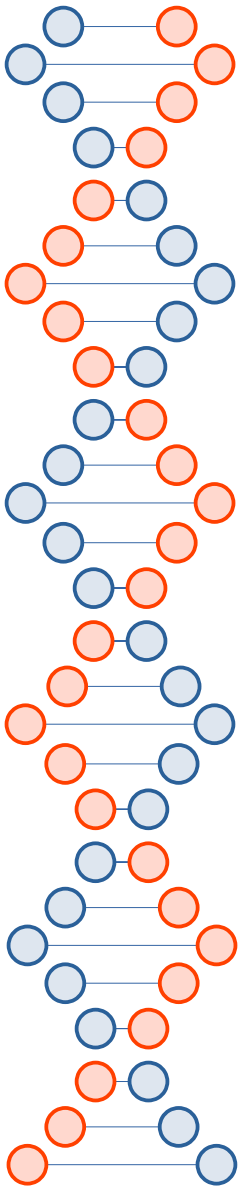
While/until loop

- **while list-1; do list-2; done**
- **until list-1; do list-2; done**
- If list-1 exits with 0 (or not 0), do list-2
- Used to do something for every line in a file
- https://linuxhint.com/while_read_line_bash/



case/esac

- **case {X} in {match}) {statement} ;; esac**
- Multiple matches/statements can be specified
- <https://www.tutorialspoint.com/unix/case-esac-statement.htm>



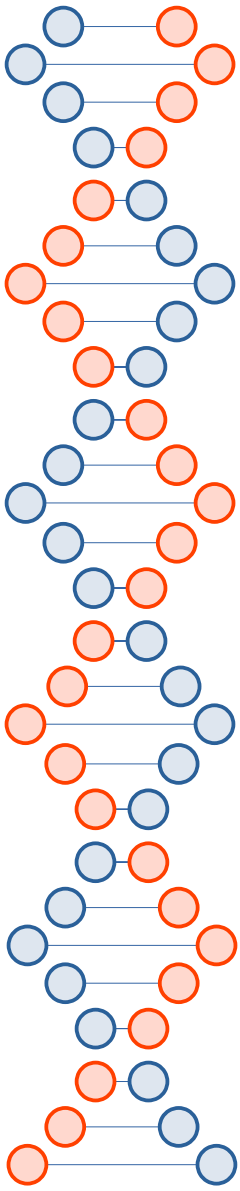
select

- **select name [in word] ; do list ; done**
- Interactive menu
- Use the **break** command to exit the select loop
 - Can break out of other loops as well
- https://linuxhint.com/bash_select_command/



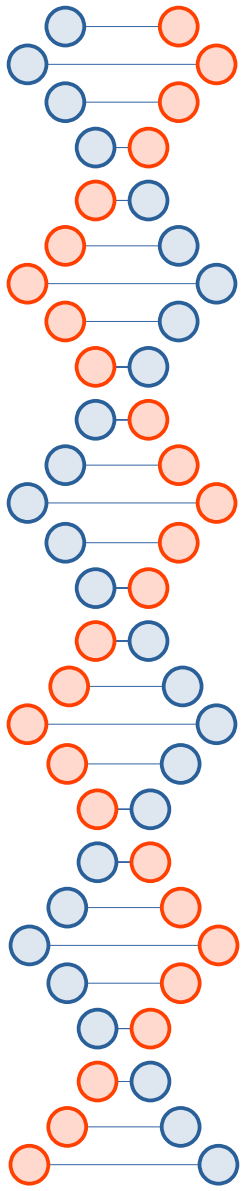
Command line arguments

- \$1, \$2, and so on store the first n variables provided to a shell script
- Can set these interactively with **set -- 1 2**
- \$@ and \$* are a bit different (next week)
- https://linuxhint.com/command_line_arguments_bash_script



Interactive input

- **read -r var**
 - Asks user for input (type and press enter)
 - Safer than just read var, which splits words



The End

Today's Terminal Toy:
doge