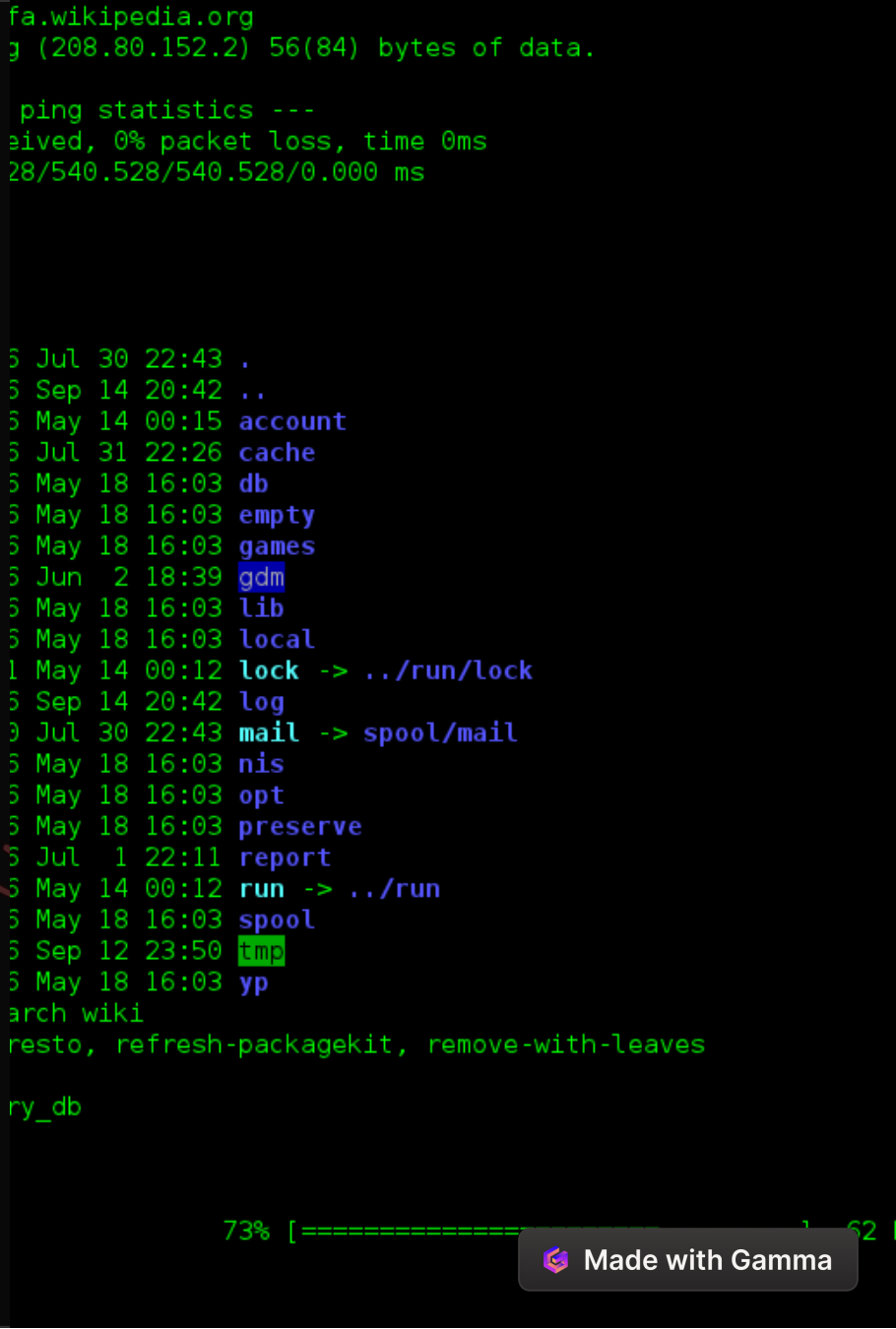
Unlocking the Power of UNIX: tr Command

The tr command in UNIX is a handy tool to translate or delete characters. Whether you need to convert lowercase to uppercase or perform basic find-and-replace operations, tr can help you get the job done.



Mastering the uniq Command in Linux

Remove duplicates

The **uniq** command is perfect for removing repeated lines from files. Add the '-u' option to display only unique lines.

Print duplicate lines

Use the '-D' option in combination with the '-c' option to print all duplicate lines.

Compare case insensitively

Make comparisons case insensitive by using the '-i' option.

Awk: Your Go-To Text Processing Tool

Awk is a powerful text processing tool. Whether you need to format output lines, perform arithmetic and string operations, or work with conditionals and loops, Awk is there to help. Here are just a few things you can do with Awk:

- Transform data files
- Produce formatted reports
- Search for patterns in file lines

Awk Operations: Counting Records

1

Command: NR

Use NR to keep a count of the number of input records.

2

Example:

Count the number of lines in a file called 'file.txt':

```
awk 'END {print NR}' file.txt
```

Awk Operations: Splitting a Line into Fields

1

Command: $n

For each record, awk splits the line delimited by whitespace by default, and stores it in $n variables. If the line has 4 words, they will be stored in $1, $2, $3, and $4 respectively.

2

Example:

Show the first and fourth fields of a file named 'file.txt':

```
awk '{print $1, $4}' file.txt
```

Awk Operations: Built-In Variables

Command: NR

NR stores a current count of the number of input records.

Command: NF

NF stores a count of the number of fields within the current input record.

Command: FS

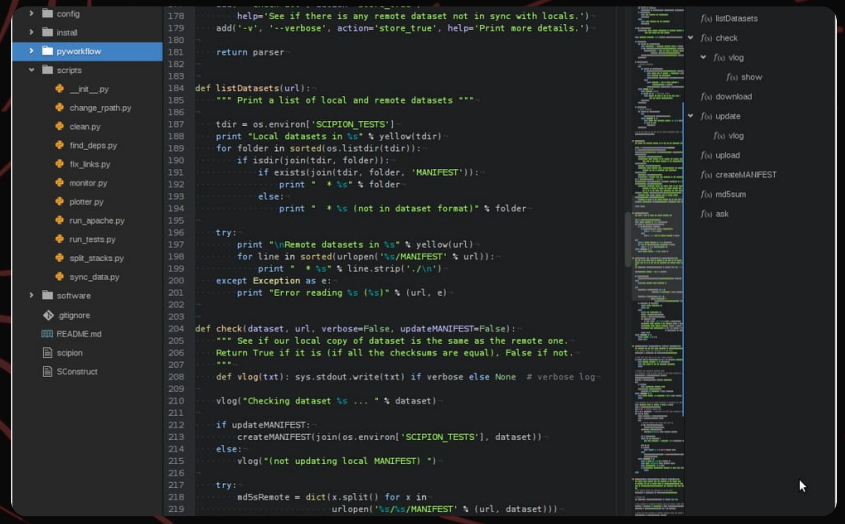
FS contains the field separator character used to divide fields on the input line.

Command: $0

$0 represents the whole line.

Awk Options: Reading the AWK Program Source

```
# Sample configuration file for ISC dhcpd
#

# option definitions common to all supported networks...
option domain-name "benet.com";
option domain-name-servers 192.168.235.132;

default-lease-time 600;
max-lease-time 7200;

# Use this to enble / disable dynamic dns updates globally.
#ddns-update-style none;

# If this DHCP server is the official DHCP server for the local
# network, the authoritative directive should be uncommented.
#authoritative;

# Use this to send dhcp log messages to a different log file (you al
so
# have to hack syslog.conf to complete the redirection).
log-facility local7;

# No service will be given on this subnet, but declaring it helps th
e
# DHCP server to understand the network topology.
```



Option: -f program-file

Use the -f option to read the AWK program source from a file, instead of from the first command line argument.

Example:

Execute an AWK program stored in the file program.awk:

```
awk -f program.awk input-file.txt
```

Awk Options: Setting the Input Field Separator

1 **Option: -F fs**

Use '-F fs' to set fs as the input field separator. The default is whitespace.

2 **Example:**

Count the number of fields in a line, assuming the field separator is a comma:

```
awk -F ',' '{print NF}' some_csv_file.txt
```