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#!/bin/bash

# output the contents of a file on the terminal.
# no. of arguments: 1
# Argument1: filename

mycat()
{
    cat $1
}

#
# print the following exactly as is from the lscpu output.
# CPU(s):                        8
# On-line CPU(s) list:          0-7
# Thread(s) per core:           2executable
# Core(s) per socket:           4
# Socket(s):                     1
#
# you could use any temporary file you want.
# just name it as prefixed with temp.lscpu.

lscpuinfo()
{
    lscpu | head -9 | tail -5
}

# given a file in argument 1, return '0' if
# the file is an C program executable else 1

is_exe()
{
    file $1 | grep executable > /dev/null
    return $?
}

# given a file in argument 1, return 0 if
# the file is an C program object file else 1

is_object()
{
    file $1 | grep "relocatable" > /dev/null
    return $?
}

# given a file in argument 1, return 0 if
# the file is an C program source file else 1

is_C()
{
    file $1 | grep "C source" > /dev/null
    return $?
}

# given a file in argument 1, return 0 if
# the file is a text file else 1

is_text()
{
    file $1 | grep "ASCII text" > /dev/null
    return $?
}

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# given a file in argument 1, return 0 if
# the file is an assembler source file 1 false

is_assembler()
{
    file $1 | grep "assembler" > /dev/null
    return $?
}

# Output the file names:type of file
# Total no. of arguments: 5
# Arguments 1-5 : All arguments are file names.
# output the file types of each of that file.
# Output should be of the following format.
# file1:assembler
# file2:executable
# file3:object
# file4:C
# file5:text
# Note the lack of any space inbetween.
# In the above , replace file1, file2.. etc to be
# the name given in the arguments.
# print "none" in the right column if you cannot find
# which kind of file it is or it is in a format that
# is other than what is listed above.

filetypes()
{
    for f in $@
    do
        is_exe $f
        if [[ $? == 0 ]]
        then
            echo "$f:executable"
            continue
        fi
        is_C $f
        if [[ $? == 0 ]]
        then
            echo "$f:C"
            continue
        fi
        is_assembler $f
        if [[ $? == 0 ]]
        then
            echo "$f:assembler"
            continue
        fi
        is_object $f
        if [[ $? == 0 ]]
        then
            echo "$f:object"
            continue
        fi
        is_text $f
        if [[ $? == 0 ]]
        then
            echo "$f:text"
            continue
        fi
        echo "$f:none"
    done
}

```

