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bonus

Question:

> Describe the difference between strerror and perror. Also provide an example code for perror.

Answer:

> The "strerror()" function, give in a parameter as errno number (int type), then it will return the string that mapped to corresponding errno number.

> The "perror()" function give in a parameter as custom string, then it will print format of string below:
> [parameter]: [string that mapped to corresponding errno number]

Code:

```c
#include <stdio.h>
#include <string.h>
#include <errno.h>

int main()
{
    for (int i = -1; i < 108; i++)
    {
        printf("strerror(%d): %40s     ",i,strerror(i));
        if(!(i%3))
        {
            printf("\n");
        }
    }
    printf("\n\n=============================================");
    printf("\nCurrently errno nnumber:%d\n",errno);
    perror("Custom String");
    printf("=============================================\n");
    return 0;
}
```

Result:

```
●●●                                    📁 hw01 — -zsh — 204×55
7 warnings and 1 error generated.
make: [all] Error 1 (ignored)
gcc hw0101.c -o hw0101
gcc hw0102.c -o hw0102
gcc hw0103.c mystring.o -o hw0103
clang: error: no such file or directory: 'mystring.o'
make: [all] Error 1 (ignored)
gcc hw0104.c mystring.o -o hw0104
clang: error: no such file or directory: 'mystring.o'
make: [all] Error 1 (ignored)
gcc bonus.c -o bonus
ryan@linxinruis-MacBook-Air hw01 % ./bonus
strerror(-1):              Unknown error: -1    strerror(0):              Undefined error: 0    strerror(3):              No such process
strerror(1):          Operation not permitted   strerror(2):       No such file or directory   strerror(6):           Device not configured
strerror(4):          Interrupted system call   strerror(5):              Input/output error   strerror(9):             Bad file descriptor
strerror(7):           Argument list too long   strerror(8):               Exec format error
strerror(10):              No child processes    strerror(11):      Resource deadlock avoided   strerror(12):          Cannot allocate memory
strerror(13):             Permission denied      strerror(14):                  Bad address     strerror(15):          Block device required
strerror(16):                Resource busy       strerror(17):                  File exists     strerror(18):             Cross-device link
strerror(19):    Operation not supported by device  strerror(20):           Not a directory     strerror(21):                Is a directory
strerror(22):             Invalid argument       strerror(23):     Too many open files in system  strerror(24):          Too many open files
strerror(25):      Inappropriate ioctl for device  strerror(26):            Text file busy     strerror(27):               File too large
strerror(28):         No space left on device    strerror(29):               Illegal seek      strerror(30):           Read-only file system
strerror(31):               Too many links       strerror(32):                 Broken pipe     strerror(33):      Numerical argument out of domain
strerror(34):              Result too large      strerror(35):    Resource temporarily unavailable  strerror(36):       Operation now in progress
strerror(37):       Operation already in progress  strerror(38):    Socket operation on non-socket  strerror(39):      Destination address required
strerror(40):              Message too long      strerror(41):     Protocol wrong type for socket  strerror(42):          Protocol not available
strerror(43):           Protocol not supported   strerror(44):       Socket type not supported   strerror(45):          Operation not supported
strerror(46):     Protocol family not supported  strerror(47): Address family not supported by protocol family   strerror(48):    Address already in use
strerror(49):      Can't assign requested address  strerror(50):              Network is down   strerror(51):             Network is unreachable
strerror(52):    Network dropped connection on reset  strerror(53):   Software caused connection abort  strerror(54):       Connection reset by peer
strerror(55):        No buffer space available    strerror(56):      Socket is already connected  strerror(57):          Socket is not connected
strerror(58):    Can't send after socket shutdown  strerror(59):  Too many references: can't splice  strerror(60):           Operation timed out
strerror(61):            Connection refused       strerror(62):   Too many levels of symbolic links  strerror(63):          File name too long
strerror(64):               Host is down         strerror(65):                No route to host  strerror(66):              Directory not empty
strerror(67):            Too many processes       strerror(68):                Too many users    strerror(69):            Disc quota exceeded
strerror(70):          Stale NFS file handle      strerror(71):    Too many levels of remote in path  strerror(72):              RPC struct is bad
strerror(73):            RPC version wrong        strerror(74):            RPC prog. not avail   strerror(75):           Program version wrong
strerror(76):        Bad procedure for program    strerror(77):            No locks available   strerror(78):         Function not implemented
strerror(79):    Inappropriate file type or format  strerror(80):          Authentication error  strerror(81):             Need authenticator
strerror(82):             Device power is off     strerror(83):                 Device error    strerror(84): Value too large to be stored in data type
strerror(85):    Bad executable (or shared library)  strerror(86):        Bad CPU type in executable  strerror(87):       Shared library version mismatch
strerror(88):          Malformed Mach-o file      strerror(89):             Operation canceled   strerror(90):             Identifier removed
strerror(91):        No message of desired type   strerror(92):           Illegal byte sequence  strerror(93):             Attribute not found
strerror(94):               Bad message          strerror(95):             EMULTIHOP (Reserved)  strerror(96):       No message available on STREAM
strerror(97):           ENOLINK (Reserved)        strerror(98):             No STREAM resources  strerror(99):                  Not a STREAM
strerror(100):              Protocol error        strerror(101):            STREAM ioctl timeout  strerror(102):   Operation not supported on socket
strerror(103):             Policy not found       strerror(104):           State not recoverable  strerror(105):             Previous owner died
strerror(106):    Interface output queue is full  strerror(107):             Unknown error: 107

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Currently errno nnumber:22
Custom String: Invalid argument
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ryan@linxinruis-MacBook-Air hw01 % ▮
```