#include <stdio.h>

#include <unistd.h>

#include <fcntl.h>

#include <sys/types.h>

#include <sys/stat.h>

// execute the command "grep Villanova < scores > out"

int main(int argc, char \*\*argv)

{

int in, out;

char \*grep\_args[] = {"grep", "Villanova", NULL};

// open input and output files

in = open("scores", O\_RDONLY);

out = open("out", O\_WRONLY | O\_TRUNC | O\_CREAT, S\_IRUSR | S\_IRGRP | S\_IWGRP| S\_IWUSR);

// replace standard input with input file

dup2(in, 0);

// replace standard output with output file

dup2(out, 1);

// close unused file descriptors

close(in);

close(out);

// execute grep

execvp("grep", grep\_args);

}