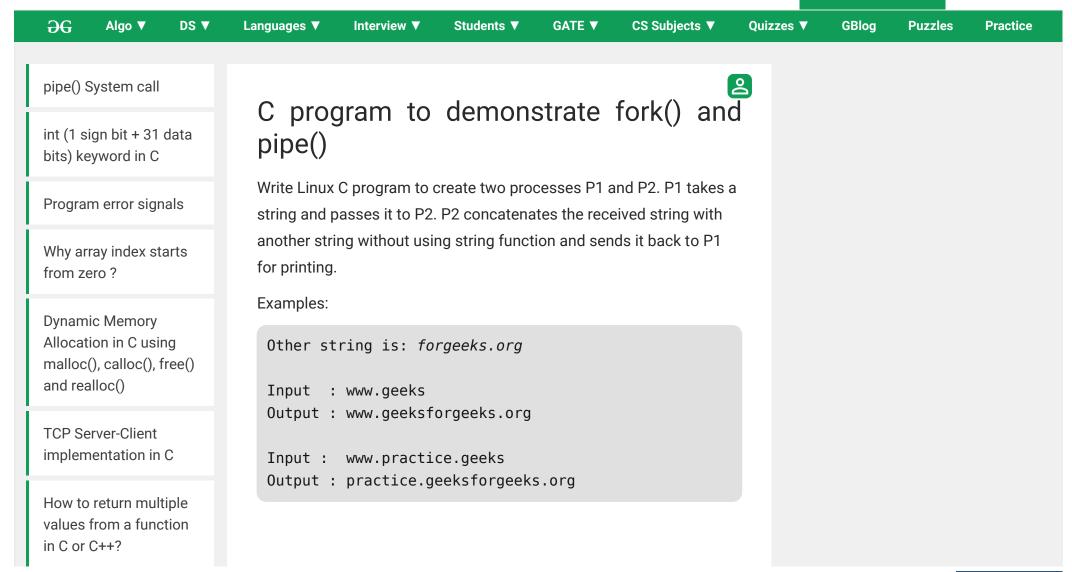


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Sum of array Elements without using loops and recursion

How to find Segmentation Error in C & C++? (Using GDB)

Why strcpy and strncpy are not safe to use?

Comments in C/C++

time() function in C

Recommended: Please try your approach on *{IDE}* first, before moving on to the solution.

Explanation:

- To create child process we use fork(). fork() returns :
 - <0 fail to create child (new) process
 - **=0** for child process
 - >0 i.e process ID of the child process to the parent process. When >0 parent process will execute.
- pipe() is used for passing information from one process to another. pipe() is unidirectional therefore, for two-way communication between processes, two pipes can be set up, one for each direction.

```
Example:
int fd[2];
pipe(fd);
fd[0]; //-> for using read end
fd[1]; //-> for using write end
```

Inside Parent Process: We firstly close the reading end of first pipe (fd1[0]) then write the string though writing end of the pipe (fd1[1]). Now parent will **wait** until child process is finished. After the child

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How does a C program executes?

Difference between const int*, const int * const, and int const *

How to avoid Structure Padding in C?

strrev() function in C

Difference between Call by Value and Call by Reference process, parent will close the writing end of second pipe(fd2[1]) and read the string through reading end of pipe (fd2[0]).

Inside Child Process: Child reads the first string sent by parent process by closing the writing end of pipe (fd1[1]) and after reading concatenate both string and passes the string to parent process via fd2 pipe and will exit.

```
// C program to demonstrate use of fork() and pipe
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<sys/types.h>
```

#include<string.h>
#include<sys/wait.h>

```
int main()
{
    // We use two pipes
    // First pipe to send input string from parent
    // Second pipe to send concatenated string from
    int fd1[2];    // Used to store two ends of firstint fd2[2];    // Used to store two ends of secon

char fixed_str[] = "forgeeks.org";
char input_str[100];
pid_t p;

if (pipe(fd1)==-1)
{
    fprintf(stderr, "Pipe Failed" );
    return 1;
}
if (pipe(fd2)==-1)
```

Dividing a Large file into Separate Modules in C/C++, Java and Python

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strlen() function in c

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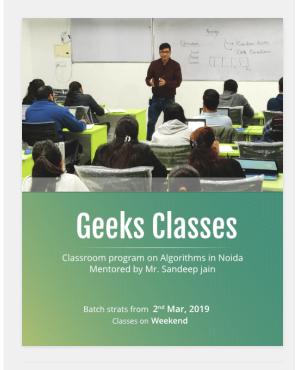
#pragma Directive in
C/C++



```
fprintf(stderr, "Pipe Failed" );
    return 1:
scanf("%s", input str);
p = fork();
if (p < 0)
    fprintf(stderr, "fork Failed" );
    return 1;
// Parent process
else if (p > 0)
    char concat str[100];
    close(fd1[0]); // Close reading end of file
    // Write input string and close writing end
    // pipe.
    write(fd1[1], input str, strlen(input str)-
    close(fd1[1]);
    // Wait for child to send a string
    wait(NULL);
    close(fd2[1]); // Close writing end of sec
    // Read string from child, print it and clo
    // reading end.
    read(fd2[0], concat str, 100);
    printf("Concatenated string %s\n", concat !
    close(fd2[0]);
```

Dividing a Large file into Separate Modules in C/C++, Java and Python

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```
// child process
        else
            close(fd1[1]); // Close writing end of fil
            // Read a string using first pipe
            char concat str[100];
            read(fd1[0], concat str, 100);
            // Concatenate a fixed string with it
            int k = strlen(concat str);
            int i;
            for (i=0; i<strlen(fixed str); i++)</pre>
                concat str[k++] = fixed str[i];
            concat str[k] = '\0'; // string ends with
            // Close both reading ends
            close(fd1[0]);
            close(fd2[0]);
            // Write concatenated string and close writ
            write(fd2[1], concat_str, strlen(concat_str
            close(fd2[1]);
            exit(0);
Input : www.geeks
Output : Concatenated string
         www.geeksforgeeks.org
```

Program to check if two strings are same or not

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Difference between C and Python

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References:

http://www.csl.mtu.edu/cs4411.ck/www/NOTES/process/fork/create .html

http://www.csl.mtu.edu/cs4411.ck/www/NOTES/process/fork/wait.html

http://searchenterpriselinux.techtarget.com/definition/pipe

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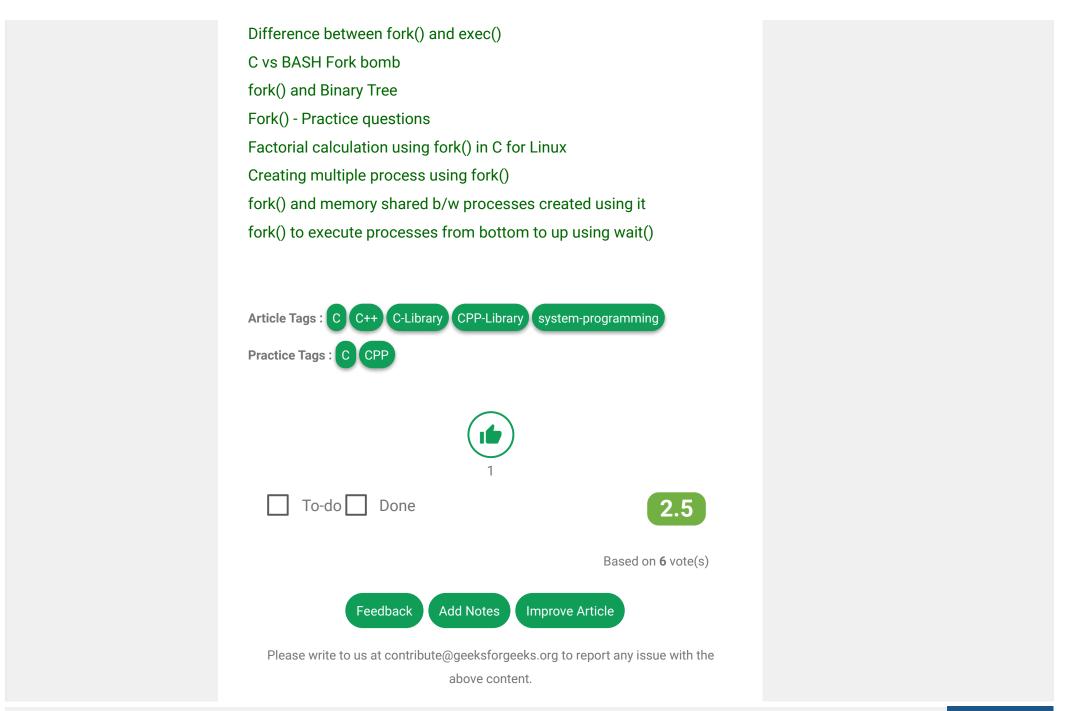
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