

##Aim:

###Write a C/C++ program to implement the system function.

##Theory:

>fork() creates a new process by duplicating the calling process. The new process, referred to as the child, is an exact duplicate of the calling process, referred to as the parent.

>system() executes a command specified in command by calling /bin/sh -c command, and returns after the command has been completed. The exec() family of functions replaces the current process image with

a new process image.

>The execl() function is one among the exec() family of functions.

>The waitpid() system call suspends execution of the calling process until a child specified by pid argument has changed state.

##Code:

```
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include<errno.h>
#include<sys/types.h>
#include<sys/wait.h>
void sys(const char *cmdstr)
{
    int pid;
    pid=fork();
    if(pid==0)
        execl("/bin/bash","bash","-c",cmdstr,NULL);
    else
        waitpid(pid,NULL,0);
}
int main(int argc,char *argv[])
{
    int i;
    for(i=1;i< argc;i++)
    {
        sys(argv[i]);
        printf("\n");
    }
    _exit(0);
}
```

##Output:

Open a terminal

Change the present working directory to the location where the program exists using the cd command in the terminal

Compile the program using the command cc <program

name> -o usp09.out

run the program using ./usp09.out

Note: To run use ./a.out command1 command2 ..., commandn where each command is a shell command. Example : ./a.out ps date who

###Screenshot:

![Not available](output.png)