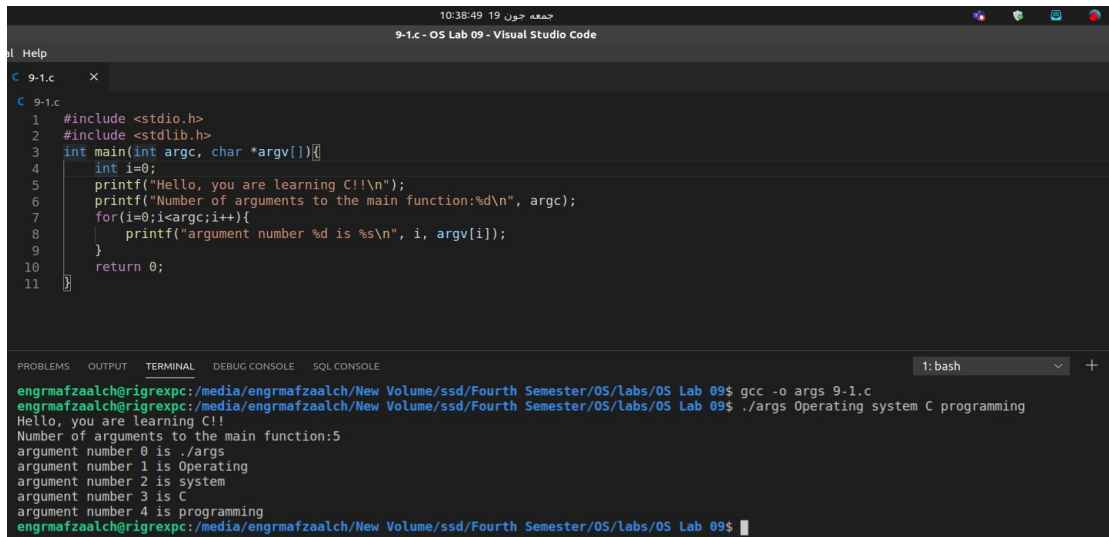


## 18-SE-11

### Muhammad Afzaal

#### Task 1

Program 9-1 accepts arguments list as from command line and then displays arguments count and arguments one by one



```
10:38:49 19 جوف 19
9-1.c - OS Lab 09 - Visual Studio Code

9-1.c
1 #include <stdio.h>
2 #include <stdlib.h>
3 int main(int argc, char *argv[])
4 {
5     int i=0;
6     printf("Hello, you are learning C!!\n");
7     printf("Number of arguments to the main function:%d\n", argc);
8     for(i=0;i<argc;i++){
9         printf("argument number %d is %s\n", i, argv[i]);
10    }
11    return 0;
12 }
```

```
engrmafzaalch@rigrexp:/media/engrmafzaalch/New Volume/ssd/Fourth Semester/OS/Labs/OS Lab 09$ gcc -o args 9-1.c
engrmafzaalch@rigrexp:/media/engrmafzaalch/New Volume/ssd/Fourth Semester/OS/Labs/OS Lab 09$ ./args Operating system C programming
Hello, you are learning C!!
Number of arguments to the main function:5
argument number 0 is ./args
argument number 1 is Operating
argument number 2 is system
argument number 3 is C
argument number 4 is programming
engrmafzaalch@rigrexp:/media/engrmafzaalch/New Volume/ssd/Fourth Semester/OS/Labs/OS Lab 09$
```

Program 9-2 accepts arguments list as from command line and built in environment variables list and then displays arguments count, arguments and environment variables one by one

#### Task 2

##### part 1

The difference b/w “program 9-3” and “program 9-4” is that

Program 9-3 prints the all files and folders in long listing form of current folder where as

Program 9-4 prints the all files and folders in long listing form of root( / ) folder because there we passed “/” as an argument.

##### Program 9-3

```

C 9-3.c  X  C 9-4.c
C 9-3.c
1  #include<sys/types.h>
2  #include<unistd.h>
3  #include<stdio.h>
4  int main(){
5      pid_t pid;
6      char *const parmList[] = {"/bin/ls", "-l", NULL};
7      if ((pid = fork()) == -1)
8          perror("fork error");
9      else if (pid == 0) {
10         execv("/bin/ls", parmList);
11         printf("Return not expected. Must be an execv error.n");
12     }
13 }

```

PROBLEMS OUTPUT **TERMINAL** DEBUG CONSOLE SQL CONSOLE

```

engrmafzaalch@rigrexp:/media/engrmafzaalch/New Volume/ssd/Fourth Semester/OS/labs/OS Lab 09$ total 659
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 272 نوح 19 09:43 9-1.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 388 نوح 19 09:43 9-2.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 16872 نوح 19 09:46 93
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 290 نوح 19 09:46 9-3.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 16872 نوح 19 09:47 94
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 315 نوح 19 09:46 9-4.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 236 نوح 19 09:45 9-5.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 347 نوح 19 09:52 9-6.c
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 607490 نوح 18 12:31 OS_LAB_09.pdf
drwxrwxrwx 1 engrmafzaalch engrmafzaalch 432 نوح 19 08:46 Practice
-rwxrwxrwx 1 engrmafzaalch engrmafzaalch 16776 نوح 19 09:50 sum
drwxrwxrwx 1 engrmafzaalch engrmafzaalch 256 نوح 19 10:01 task-3

```

## Program 9-4

```

10:29:37 19 جمعه جون
9-4.c - OS Lab 09 - Visual Studio Code
Terminal Help
C 9-3.c  C 9-4.c  X
C 9-4.c
1  #include<sys/types.h>
2  #include<unistd.h>
3  #include<stdio.h>
4  #include<stdlib.h>
5  int main(){
6      pid_t pid;
7      char *const parmList[] = {"/bin/ls", "-l", "/", NULL};
8      if ((pid = fork()) == -1)
9          perror("fork() error");
10     else if (pid == 0) {
11         |execvp("ls", parmList);
12         |printf("Return not expected. Must be an execvp() error.n");
13     }
14 }

```

PROBLEMS OUTPUT **TERMINAL** DEBUG CONSOLE SQL CONSOLE

```

engrmafzaalch@rigrexp:/media/engrmafzaalch/New Volume/ssd/Fourth Semester/OS/labs/OS Lab 09$ total 76
lrwxrwxrwx 1 root root 7 ليربا 24 01:23 bin -> usr/bin
drwxr-xr-x 4 root root 4096 نوح 10 01:15 boot
drwxr-xr-x 2 root root 4096 ليربا 24 01:25 cdrom
drwxr-xr-x 21 root root 4720 نوح 19 08:17 dev
drwxr-xr-x 140 root root 12288 نوح 13 20:28 etc
drwxr-xr-x 4 root root 4096 ليربا 24 01:26 home
lrwxrwxrwx 1 root root 7 ليربا 24 01:23 lib -> usr/lib
lrwxrwxrwx 1 root root 9 ليربا 24 01:23 lib32 -> usr/lib32
lrwxrwxrwx 1 root root 9 ليربا 24 01:23 lib64 -> usr/lib64
drwxr-xr-x 1 root root 19 ليربا 24 01:23 libx32 -> usr/libx32
drwxr-xr-x 2 root root 16384 ليربا 24 01:23 lost+found
drwxr-xr-x 3 root root 4096 ليربا 24 02:13 media
drwxr-xr-x 2 root root 4096 ليربا 23 12:32 mnt
drwxr-xr-x 4 root root 4096 فئم 28 17:15 opt
dr-xr-xr-x 315 root root 0 نوح 19 08:15 proc
drwx----- 9 root root 4096 نوح 9 08:51 root
drwxr-xr-x 37 root root 1000 نوح 19 09:56 run
lrwxrwxrwx 1 root root 8 ليربا 24 01:23/sbin -> usr/sbin
drwxr-xr-x 12 root root 4096 فئم 28 17:10 snap
drwxr-xr-x 2 root root 4096 ليربا 23 12:32 srv
dr-xr-xr-x 13 root root 0 نوح 19 08:15 sys
drwxrwxrwt 36 root root 4096 نوح 19 10:18 tmp
drwxr-xr-x 14 root root 4096 ليربا 23 12:34 usr
drwxr-xr-x 15 root root 4096 فئم 1 01:14 var

```