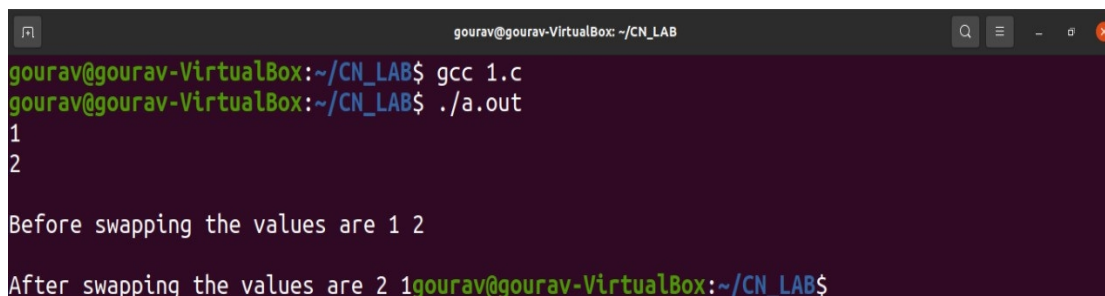


LAB-1
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1. Swap two numbers using pointers

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int a_555,b_555;
    scanf("%d%d",&a_555,&b_555);
    printf("\nBefore swapping the values are ");
    printf("%d %d\n",a_555,b_555);
    int *p_555,*q_555;
    p_555=&a_555;
    q_555=&b_555;
    int *temp;
    temp=p_555;
    p_555=q_555;
    q_555=temp;
    printf("\nAfter swapping the values
are %d %d",*p_555,*q_555);
    return 0;
}
```

A screenshot of a terminal window titled 'gourav@gourav-VirtualBox: ~/CN_LAB'. The terminal shows the following commands and output:
gourav@gourav-VirtualBox:~/CN_LAB\$ gcc 1.c
gourav@gourav-VirtualBox:~/CN_LAB\$./a.out
1
2
Before swapping the values are 1 2
After swapping the values are 2 1
gourav@gourav-VirtualBox:~/CN_LAB\$
The output demonstrates that the values 1 and 2 were swapped after running the program.

2. Display student info using structure

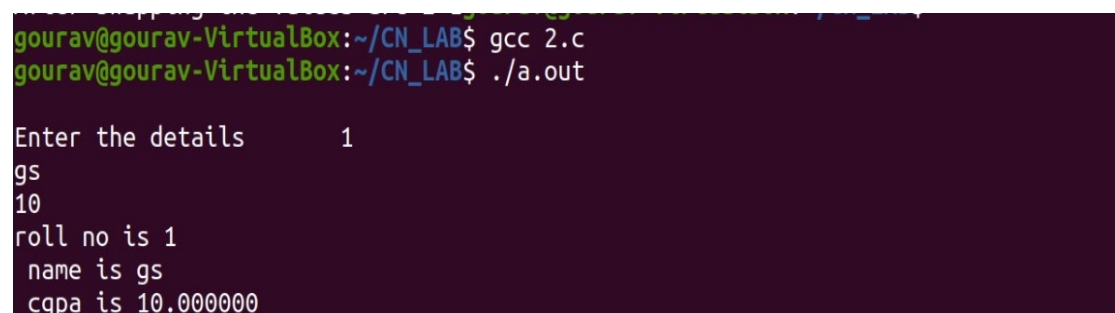
```

#include<stdio.h>
#include<stdlib.h>
struct info
{
    int roll_555;
    char name_555[50];
    float cgpa_555;
};

void display(struct info *a_555)
{
    printf("roll no is %d\n name is %s\n cgpa is %f\n",a_555-
>roll_555,a_555->name_555,a_555->cgpa_555);
}

int main()
{
    struct info *a_555=(struct info *)malloc(sizeof(struct info));
    printf("\nEnter the details\t");
    scanf("%d",&(a_555->roll_555));
    scanf("%s",a_555->name_555);
    scanf("%f",&(a_555->cgpa_555));
    display(a_555);
    return 0;
}

```



```

gourav@gourav-VirtualBox:~/CN_LAB$ gcc 2.c
gourav@gourav-VirtualBox:~/CN_LAB$ ./a.out

Enter the details      1
gs
10
roll no is 1
name is gs
cgpa is 10.000000

```

3. Print the endianness of a number

```


#include<stdio.h>
#include<stdlib.h>

```

```

void extract(int x_555)
{
int a_555,b_555,c_555,d_555;
a_555=x_555&0xff;
b_555=(x_555>>8)&0xff;
c_555=(x_555>>16)&0xff;
d_555=(x_555>>24)&0xff;
printf("%d %d %d %d",a_555,b_555,c_555,d_555);
}
int main()
{
int x_555;
scanf("%d",&x_555);
extract(x_555);
return 0;
}

```



```

gourav@gourav-VirtualBox:~/CN_LAB$ gcc 3.c
gourav@gourav-VirtualBox:~/CN_LAB$ ./a.out
3
3 0 0 0gourav@gourav-VirtualBox:~/CN_LAB$

```

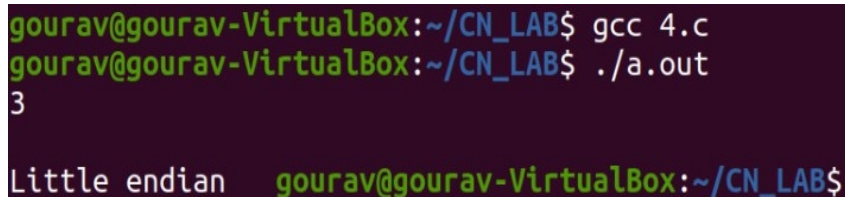
4. Check whether your system is little endian or big endian

```

#include<stdio.h>
#include<stdlib.h>
void extract(int x_555)
{
int d_555;
//printf("%d_555 %d_555 %d_555 %d_555",a,b,c,d_555);
if(d_555==x_555)
printf("\nBig endian\t");
else
printf("\nLittle endian\t");
}
int main()
{

```

```
int x_555;
scanf("%d",&x_555);
extract(x_555);
return 0;
}
```



A terminal window with a dark purple background. The prompt is 'gourav@gourav-VirtualBox:~/CN_LAB\$'. The first command is 'gcc 4.c', the second is './a.out'. The output is '3'. At the bottom, it says 'Little endian' followed by the prompt 'gourav@gourav-VirtualBox:~/CN_LAB\$'.

```
gourav@gourav-VirtualBox:~/CN_LAB$ gcc 4.c
gourav@gourav-VirtualBox:~/CN_LAB$ ./a.out
3
Little endian  gourav@gourav-VirtualBox:~/CN_LAB$
```

5. Print student details using reference object

```
#include <stdio.h>
```

```
struct info{
int rollno_555;
char name_555[50];
float cgpa_555;
};
int main()
{
    struct info student,*s;
    s=&student;
    printf("Enter the rollno ");
    scanf("%d",&s->rollno_555);
    printf("Enter the name");
    scanf("%s",s->name_555);
    printf("Enter the cgpa");
    scanf("%f",&s->cgpa_555);
    printf("\n\n");
    printf("Entered list of the student");
    printf("roll no: %d",s->rollno_555);
    printf("name: %s",s->name_555);
    printf("roll no: %f",s->cgpa_555);
    return 0;
}
```

}

```
gourav@gourav-VirtualBox:~/CN_LAB$ gcc 5.c
gourav@gourav-VirtualBox:~/CN_LAB$ ./a.out
Enter the rollno 1
Enter the namegs
Enter the cgpa10
```