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A-28
LAB Assignment 12

1. Write a C Program that passes three variables (a, b, c) as separate parameters to another user-defined function and rotates the values stored so the value of ‘a’ goes to ‘b’, value of ‘b’ goes to ‘c’, and value of ‘c’ to ‘a’.

Program:-

```c
#include<stdio.h>

void swap(int *, int *, int *);

int main(){
    int a , b , c ;
    printf("\n\nEnter the three numbers to swap :");
    scanf("%d %d %d", &a , &b , &c);
    printf("Before Swap:\n");
    printf("a = %d , b = %d , c = %d\n\n ",a,b,c);
    swap(&a , &b , &c);
    printf("After Swap:\n");
    printf("a = %d , b = %d , c = %d\n\n ",a,b,c);
    return 0;
}


void swap(int *x, int *y, int *z){
    int temp;
    temp = *x;
    *x = *z;
    *z =*y;
    *y = temp;
}
```

Output:-

```
2_1_rotateValues.c -o LA12_1_rotateValues } ;

Enter the three numbers to swap :10 20 30
Before Swap:
a = 10 , b = 20 , c = 30

 After Swap:
a = 30 , b = 10 , c = 20


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```

2. Write a C Program that passes the values of variables a, m to a function power() that finds the value of a m inside its body and saves the value to result variable implicitly.

Program:-

```
#include<stdio.h>

void power(float , int , float *);

int main(){
    int m ;
    float a , result;
    printf("\n\nEnter the value of integer and the power to which
it will be raised :");
    scanf("%f %d",&a , &m);
    power(a , m , &result);
    printf("The result is : %.3f\n\n",result);
    return 0;
}

void power( float x , int y , float *r){
    int i;
    *r = 1.0;
    for (i = 0; i<y ; i++){
        *r *= x;
    }
}
```

Output:-

```
cc LA12_2_powerimplicitly.c -o LA12_2_powerimplicitly } ; if ($?) { .\LA12_

Enter the value of integer and the power to which it will be raised :2.1 10
The result is : 1667.987

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```