DR . Ahmed Soliman

Assignment (2)

1. Write a C program that check the number entered by a user is odd or even.

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

void main()
{
    char yesOrNo;
    do
    {
        int number;
        printf("Enter an number: ");
        scanf("%d", &number);
        if (number % 2 == 0)
        {
            printf("%d is even.\n", number);
        }
        else
        {
            printf("%d is odd.\n", number);
        }
        printf("If you want to do another operation, click (y or n)? ");
        scanf("%s", &yesOrNo);
    }
    while(yesOrNo == 'y');


}
```

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2. Write a C program that check the number entered by a user is positive or negative.

```c
#include <stdio.h>
#include <stdlib.h>
// Esmail Sameh Abdo
// 2024036792
//D6
void main()
{
    char yesOrNo;
    do
    {
        int number;
        printf("Enter an number: ");
        scanf("%d", &number);
        if (number < 0)
        {
            printf("%d is Negative.\n", number);
        }else if(number == 0){
            printf("%d is not Negative or positive it's zero.\n", number);
        }else
        {
            printf("%d is positive.\n", number);
        }
        printf("If you want to do another operation, click (y or n)? ");
        scanf("%s", &yesOrNo);
    }
    while(yesOrNo == 'y');
```

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3- Write a C program to make simple calculator The program will ask the user to read two numbers and read an operation symbol (+,-,*,/). Then the program will perform the required operation on the two numbers and print the results switch - case .

```c
void main()
{
    char yesOrNo;
    do
    {
        double num1, num2,result;
        char ope;
        printf("Enter number one:\n ");
        scanf("%d", &num1);
        printf("Enter the operation (+ , - , x , /):\n ");
        scanf("%s", &ope);
        printf("Enter number two:\n ");
        scanf("%d", &num2);

        switch(ope)
        {
        case '+':result = num1 + num2;break;
        case '-':result = num1 - num2;break;
        case 'x':result = num1 * num2;break;
        case '/':if(num1 == 0){num1 = 1;}result = num1 / num2;break;
        }
        printf("-----------------------\n");
        printf("your result is: %d\n", result);
        printf("-----------------------\n\n\n");
        printf("If you want to do another operation, click (y or n)? ");
        scanf("%s" , &yesOrNo);
    }while(yesOrNo == 'y');
```

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Find output:

```c
int main()
{
    int n = 4;
    int k = 2;
    printf ("%d\n", ++n );
    printf ("%d\n", n );
    printf ("%d\n", n++ );
    printf ("%d\n", n);
    printf ("%d\n", -n) ;
    printf ("%d\n", n) ;
    printf ("%d\n", --n );
    printf ("%d\n", n );
    printf ("%d\n", n-- );
    printf ("%d\n", n );
    printf ("%d\n", n+k );
    printf ("%d %d \n", n, k );
}
```

///

<u>Output</u>

```
5
5
5
6
-6
6
5
5
5
4
6
4 2
```

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