Assignment 2

Operators in C Language

```c
#include <stdio.h>

int main() {
    int num, num2, num3, a, b, temp, digit;
    char ch;
    float f;
    double d;

    // 1. Print unit digit of a given number
    printf("Enter a number: ");
    scanf("%d", &num);
    int unit_digit = num % 10;
    printf("Unit digit: %d\n", unit_digit);

    // 2. Print a given number without its last digit
    num2 = num / 10;
    printf("\nNumber without the last digit: %d\n\n", num2);

    // 3. Swap values of two int variables
    printf("Enter two integers to swap: ");
    scanf("%d %d", &a, &b);
    temp = a;
    a = b;
    b = temp;
    printf("Swapped values: a = %d, b = %d\n\n", a, b);
```

```c
// 4. Swap values of two int variables without using a third variable
printf("Enter two integers to swap without a third variable: ");
scanf("%d %d", &a, &b);
a = a + b;
b = a - b;
a = a - b;
printf("Swapped values without a third variable: a = %d, b = %d\n\n", a, b);

// 5. Input a three-digit number and display the sum of the digits
printf("Enter a three-digit number: ");
scanf("%d", &num3);
int sum_of_digits = (num3 % 10) + ((num3 / 10) % 10) + (num3 / 100);
printf("Sum of the digits: %d\n\n", sum_of_digits);

// 6. Take a character as input and display its ASCII code
printf("Enter a character: ");
scanf(" %c", &ch);
printf("ASCII code of '%c' is %d\n\n", ch, ch);

// 7. Find the position of the first 1 in LSB
printf("Enter a number: ");
scanf("%d", &num);
int position = 0;
while (!(num & 1)) {
    num >>= 1;
    position++;
}
printf("Position of the first 1 in LSB: %d\n\n", position);
```

```c
// 8. Check whether the given number is even or odd using bitwise operator
printf("Enter a number: ");
scanf("%d", &num);
if (num & 1) {
    printf("%d is odd\n\n", num);
} else {
    printf("%d is even\n\n", num);
}

// 9. Print the size of int, float, char, and double variables
printf("Size of int: %lu bytes\n", sizeof(int));
printf("Size of float: %lu bytes\n", sizeof(float));
printf("Size of char: %lu bytes\n", sizeof(char));
printf("Size of double: %lu bytes\n\n", sizeof(double));

// 10. Make the last digit of a number stored in a variable as zero
printf("Enter a number: ");
scanf("%d", &num);
num = (num / 10) * 10;
printf("Number with last digit as zero: %d\n\n", num);

// 11. Input a number and a digit, append the digit to the number
printf("Enter a number: ");
scanf("%d", &num);
printf("Enter a digit to append: ");
scanf("%d", &digit);
num = (num * 10) + digit;
printf("Resulting number: %d\n\n", num);
```

```c
    // 12. Convert INR to USD
    float inr, usd;
    printf("Enter an amount in INR: ");
    scanf("%f", &inr);
    usd = inr / 76.23;
    printf("Equivalent amount in USD: %.2f\n\n", usd);

    // 13. Rotate the digits of a three-digit number to the right
    printf("Enter a three-digit number: ");
    scanf("%d", &num);
    int last_digit = num % 10;
    num = num / 10 + (last_digit * 100);
    printf("Rotated number: %d\n", num);

    return 0;
}
```

```
Enter a number: 69
Unit digit: 9

Number without the last digit: 6

Enter two integers to swap: 13
87
Swapped values: a = 87, b = 13

Enter two integers to swap without a third variable: 98
89
Swapped values without a third variable: a = 89, b = 98

Enter a three-digit number: 616
Sum of the digits: 13

Enter a character: f
ASCII code of 'f' is 102

Enter a number: 42
Position of the first 1 in LSB: 1

Enter a number: 17
17 is odd
```

```
Size of int: 4 bytes
Size of float: 4 bytes
Size of char: 1 bytes
Size of double: 8 bytes

Enter a number: 80
Number with last digit as zero: 80

Enter a number: 54
Enter a digit to append: 8
Resulting number: 548

Enter an amount in INR: 20
Equivalent amount in USD: 0.26

Enter a three-digit number: 957
Rotated number: 795
PS D:\computer stuff\ASSigment>
```