Operators in C
Lecture 2 Assignments

1. Code the following:

   a. Prompt the user to enter a two-digit number
   b. Display the number with the digits reversed

   Example:

   ```
   Please enter a 2-digit number: 75
   Reverse: 57
   ```

   Save your code as `as1.c`

```c
#include<stdio.h>
main()
{
int number, rev_num, next_digit,last_digit;

printf ("Enter a two digit number: ");
scanf("%d", &number);

last_digit = number - ((number / 10) * 10); /*ONES*/

rev_num = last_digit; /*1*/

next_digit = (number / 10) - ((number / 100) * 10); /*TENS*/

rev_num = (rev_num * 10) + next_digit; /*12*/

printf ("Reversed number = %d",rev_num);
}
```

```
Enter a two digit number: 23
Reversed number = 32
```

2. Extend the code in item 1, such that it reverses a 3-digit number.

   Example:

   ```
   Please enter a 3-digit number: 123
   Reverse: 321
   ```

   Save your code as `as2.c`

```c
#include<stdio.h>
main()
{
int number, rev_num, next_digit,last_digit;

printf ("Enter a three digit number: ");
scanf("%d", &number);

last_digit = number - ((number / 10) * 10); /*ONES*/

rev_num = last_digit; /*1*/

next_digit = (number / 10) - ((number / 100) * 10); /*TENS*/

rev_num = (rev_num * 10) + next_digit; /*12*/

next_digit = (number / 100) - ((number / 1000) * 10); /*HUNDREDS*/

rev_num = (rev_num * 10) + next_digit; /*123*/


printf ("Reversed number = %d",rev_num);
}
```

```
Enter a three digit number: 578
Reversed number = 875
```

3. Provide the output of the following codes, given that i, j, and k are integer variables.

a)
```c
i = 3; j = 4; k = 5;
printf("%d", i < j || ++j < k);
```
Output: 1

b)
```c
i = 7; j = 8; k = 9;
printf("%d",i - 7 && j++ < k);
```
Output:0

c)
```c
i = 7; j = 8; k = 9;
printf("%d", (i = j) || (j == k));
```
Output: 1
```c
printf("%d %d %d", i, j, k);
```
Output: 8 8 9

d)
```c
i = j = k = 1;
printf("%d", ++i || ++j && ++k);
```
Output:1
```c
printf("%d %d %d", i, j, k);
```
Output:2 1 1

```c
#include <stdio.h>
int main(void) {
    int i,j,k;
    i = 3;
    j = 4;
    k = 5;
    printf("%d", i < j || ++j < k);
    return 0;
}
```

```c
#include <stdio.h>
int main(void) {
    int i,j,k;
    i = 7;
    j = 8;
    k = 9;
    printf("%d",i - 7 && j++ < k);
    return 0;
}
```

```c
#include <stdio.h>
int main(void) {
    int i,j,k;
    i = 7;
    j = 8;
    k = 9;
    printf("%d", (i = j) || (j == k));
    printf("%d %d %d", i, j, k);
    return 0;
}
```

```c
#include <stdio.h>
int main(void) {
    int i,j,k;
    i = j = k = 1;
    printf("%d", ++i || ++j && ++k);
    printf("%d %d %d", i, j, k);
    return 0;
}
```

Instructions for submissions

- Take screenshots of your codes for numbers which requires coding (e.g., 1, 2, 3) and embed it on the pdf along with an example output.
- Submit your answers in a pdf file with filename assignment2[surname].pdf
- Save the pdf file (assignment2[surname].pdf) and the codes in the directory:
  CMSC21/Lecture2/Assignments/
- Remember that you have initially created this repository for your reading assignment.
- Upload to github.

- Download git cmd
- Navigate to the CMSC21 Folder
- For example (assuming your CMSC21 folder is in Documents)
    - `cd Documents/CMSC21`
    - `git add –all`
    - `git commit -m "Lecture 2 Assignment"`
    - `git push -u origin main`

- Submit to LMS