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

```c

/*************************************************************
This program provides the reverse of the input by the user.
*************************************************************/

int main(void)

{
  //declaring the variables
  int n, dig_1, dig_2, rev, orig;

  // asks the user for the input
  printf("Enter a 2-digit number:\n ");
  scanf("%d",&n);

  /*the values was stored in the variable
  orig */
  /*utilized modulo operator which will take
  the remainder of the number */
  /*divided the number by 10 which takes the
  whole number */

  orig = n;
  dig_1 = n %10;
  n= n/10;
  dig_2= n %10;
  n=n/10;

  /*multiplied by tens, ones took the sum of the
  two and store in the variable named rev */

  /*for example, user input = 57; dig_1= 57%10
  q = 5; r. 7 then 57/10 = 5 ; dig_2 = 5%10
  q=0; r=5 ; reverse= 7(10) + 5(1) = 75*/

  //result was printed

  rev = dig_1*10 + dig_2*1;
  printf("\nThe reversed number of %d",orig);
  printf(" is %d\n",rev);

}

```

```
Select "C:\Users\acer\OneDrive - University of the Philippines\Desktop\kkkk\b
Enter a 2-digit number:
 89

The reverse number of 89 is 98
Process returned 0 (0x0)   execution time : 2.586 s
Press any key to continue.
```

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

```c
#include<stdio.h>

/*****************************************************************
This program provides the reverse of the input by the user.
*****************************************************************/

int main(void)

{
   //declaring the variables
   int n, dig_1, dig_2, dig_3, rev, orig;

   // asks the user for the input
   printf("Enter a 3-digit number:\n ");
   scanf("%d",&n);

   /*the values was stored in the variable
   orig */

   /*utilized modulo operator which will take
   the remainder of the number */
   /*divided the number by 10 which takes the
   whole number */

   orig = n;
   dig_1 = n %10;
   n= n/10;
   dig_2= n %10;
   n=n/10;
   dig_3 = n%10;
   n=n/10;

   /*multiplied by one hundred, ten and one; took the sum
   of the three variables and store in the variable named rev */

   /*for example, user input = 357; dig_1= 357%10
   q = 35; r. 7 then 357/10 = 35 ; dig_2 = 35%10
   q=3; r.5 ; dig_3= 3%10 = q=0 ; r.3
   reverse= 7(100) + 5(10) + 3(1)= 753*/

   //result was printed
   rev = dig_1*100 + dig_2*10 + dig_3*1;
   printf("\nThe reversed number of %d",orig);
   printf(" is %d\n",rev);

}
```

```
"C:\Users\acer\OneDrive - University of the Philippines\Desktop\CMSC-21\L
Enter a 3-digit number:
 879

The reversed number of 879 is 978

Process returned 0 (0x0)   execution time : 6.172 s
Press any key to continue.
```

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

```c
#include <stdio.h>

/*************************************************************
This program solves for the value of the following:
*************************************************************/

int main(void)
{
    //declared the variables
    int i, j, k;

    /*assigned the values and prints
      the result */

    i= 3; j=4; k=5;
    printf("a) %d\n",i<j || ++j < k);

    i= 7; j= 8 ; k=9;
    printf("b) %d\n", i-7 && j++ < k);

    i= 7; j= 8 ; k=9;
    printf("c) %d\n",(i=j)||(j==k));
    printf("c.1) %d%d%d\n", i,j,k);

    i= j= k=1;
    printf("d) %d\n", ++i || ++j && ++k);
    printf("d.1) %d%d%d%\n", i,j,k);

    return 0;

}
```

```
"C:\Users\acer\OneDrive - University of the Philippines\Desktop\CMSC-21\Lectu
a) 1
b) 0
c) 1
c.1) 889
d) 1
d.1) 211

Process returned 0 (0x0)   execution time : 0.049 s
Press any key to continue.
```

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