Course Name: O Level (2nd Sem B3 and B2 Batch) **Subject:** C Language
Topic: Nesting of Loops Contd.. **Date:** 26-03-2020

Example.1: Program to print 1 to 7 number and print their factorial value like :-

```
#include<stdio.h>
#include<conio.h>
void main()
{
int r,s,f;
clrscr();
printf("Number\t\tFactorial value");
for(r=1;r<=7;r++)
{
s=r;
for(f=1;s>=1;s--)
f=f*s;
printf("\n%d\t\t\t%d\n",r,f);
}
getch();
}
```

Output

Number	Factorial value
1	1
2	2
3	6
4	24
5	120
6	720
7	5040

Do yourself:

1. Write a program to print all the factorial value along with number b/w 1 to 7 with the help of while loop.

Example.2: Program to print all the Armstrong number from 1 to 500.

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
main()
{
  int x,y,i;
  clrscr();
  for(i=1;i<=500;i++)
  {
  y=0;
  for(x=i;x!=0;x/=10)
  y=y+pow((x%10),3);
  if(i==y)
  printf("\n%d",y);
  }
getch();
}
```

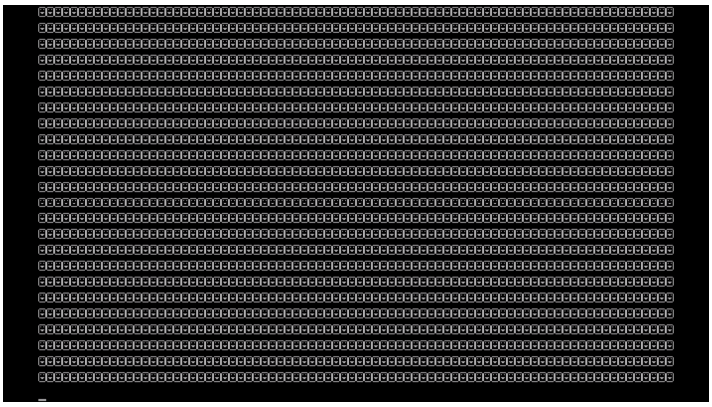
Do yourself:

1. Do the above example with the help of while loop.
2. Write a program to print all the Palindrome number b/w 1 to 100 with the help of while loop.

Example.3: Write a program to fill the entire screen with smiling face.
The smiling face has an ASCII value 1.

```
#include<stdio.h>
#include<conio.h>
void main()
{
int r,c;
clrscr();
for(r=1;r<=25;r++)
{
for(c=1;c<=80;c++)
printf("%c",1);
}
getch();
}
```

Output



Do yourself:
1. Do the above example with the help of while loop.

Example.4: Program to print the following pattern:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int x,y,r,c,s,n=1;
clrscr();
for(r=1;r<=5;r++)
{
for(s=5;s>r;s--)
printf("%c",32);
x=n;
for(c=1;c<=r;c++)
{
y=(x%10);
printf(" %d",y);
x/=10;
}
printf("\n");
n=n*11;
}
getch();
}
```

Output

Do yourself:
1. Rewrite the above example with the help of while loop.