Assingment-6

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1. Calculate the sum of numbers (10 numbers max) & If the user enters a negative number, the loop terminates.

```
#include<stdio.h>
int main()
{
 int number, i, sum=0;

 for(i=0;i<=10;i++)
 {

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

  if( number<0 )
  break;

  sum += number;
 }

 printf("Sum=%d",sum);

 return 0;
```

}

Output:

```
Enter number: 10

Enter number: 20

Enter number: 30

Enter number: -
20

Sum=60
```

2. Calculate the sum of numbers (10 numbers max) & If the user enters a negative number, it's not added to the result.

```
#include<stdio.h>
int main()
{
  int number, i, sum=0;

  for(i=0;i<=10;i++)
  {
```

```
    printf("Enter number: ");
    scanf("%d",&number);

    if( number<0 )
    continue;

    sum += number;
  }

  printf("Sum=%d",sum);

  return 0;
}
```

Output:

```
Enter number: 1

Enter number: 2

Enter number: 3

Enter number: 4
```

```
Enter number: 5


Enter number: 6

Enter number: 7


Enter number: 8


Enter number: 9


Enter number: -
10

Enter number: -11

Sum=45
```

3. Take input from the user until he/she enters zero. (Using Break)

```
#include <stdio.h>

int main ()

{

 int a;

 while (1)

 {

   printf("enter the number:");

   scanf("%d", &a);

   if ( a == 0 )
```

```
    break;
  }
 return 0;
}
```

Output:

```
enter the number:1

enter the number:2

enter the number:3

enter the number:4

enter the number:5

enter the number:0
```

4. Check whether the given number is prime or not. (Using Break)

```
#include <stdio.h>
int main() {
   int n, i, flag = 0;
   printf("Enter a positive integer: ");
   scanf("%d", &n);
```

```
    for (i = 2; i <= n / 2; ++i)
{
        if (n % i == 0) {
            flag = 1;
            break;
        }
    }

    if (n == 1)
{
        printf("1 is neither prime nor composite.");
    }
    Else
 {
        if (flag == 0)
            printf("%d is a prime number.", n);
        else
            printf("%d is not a prime number.", n);
    }
```

```
    return 0;
}
```

Output:

```
Enter a positive integer: 29

29 is a prime number.
```

5. Print sum of odd numbers between 0 and 10. (Using Continue)

```
#include<stdio.h>
int main()
{
  int n, sum=0;

  printf("Enter n value: ");
  scanf("%d",&n);

  for(int i=1; i<=n; i++)
  {
    if(i%2!=0)
 sum += i;
  }
```

```
  printf("Sum of odd numbers from 1 to %d is: %d", n, sum);


  return 0;
}
```

Output:

```
Enter n value: 10

Sum of odd numbers from 1 to 10 is: 25
```

6. Check whether the given number is prime or not.(Using Continue)

```
#include <stdio.h>
int main()
{
   int n, i, flag = 0;
   printf("Enter a positive integer: ");
   scanf("%d", &n);

   for (i = 2; i <= n / 2; ++i)
   {
```

```
        if (n % i == 0)
        {
            flag = 1;
            continue;
        }
    }

    if (n == 1) {
        printf("1 is neither prime nor composite.");
    }
    else {
        if (flag == 0)
            printf("%d is a prime number.", n);
        else
            printf("%d is not a prime number.", n);
    }

    return 0;
}
```

Output:

```
Enter a positive integer: 29


29 is a prime number.
```

7. Print all even numbers from 1 to 100. (Using Continue)

```
#include <stdio.h>


int main() {
        int i;
        printf("Even numbers between 1 to 100:\n");
        for (i = 1; i <= 100; i++)
        {
                if(i%2 == 0)
                {

                  printf("%d ", i);
                  continue;
                }
        }
        return 0;
```

}

Output:

```
Even numbers between 1 to 100:


2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42
44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82
 84 86 88 90 92 94 96 98 100
```

8. Print numbers from 1 to 10 using go to statement. (Using goto)

```
#include <stdio.h>


int main()
{
        int counter=1;


        START:
        printf("%d ",counter);
        counter++;


        if(counter<=10)
                goto START;
```

```
    return 0;
}
```

Output:

```
2 3 4 5 6 7 8 9 10
```

10. Check if a number is even or not. (Using goto)

```
void main()
{
   int num;

   printf("Enter a number\n");
   scanf("%d", &num);

   if (num % 2 == 0)
      goto even;
   else
      goto odd;

even:
   printf("%d is even\n", num);
```

```
    exit(0);
odd:
    printf("%d is odd\n", num);
}
```

Output:

```
Enter a number

11

11 is odd
```