Day 3

1) reverse of a number

```
#include<stdio.h>
 int main() {
int n, reverse =0, remainder, original;
Printf (" Enter an integer : ");
 scanf ("%d ", &n);
  original =n;
  while (n != 0) {
  remainder = n % 10;
   reverse = reverse * 10 + remainder;
    n /=10;
   }
  if (original % 10 == 0) {
 printf ("reversed number = %d", reverse);
  while (original % 10 == 0) {
   Printf ("0");
   original /=10;
   }
   }
   else {
   printf("reversed number = %d", reverse);
   }
   return 0;
   }
```

out put:

Enter an integer: 2345

reversed number = 5432

palindrome number

```
#include<stdio.h>
  int main(){
  int n, reversed=0, remainder, original;
  Printf("Enter an integer:");
  scanf("%d",&n);
   original=n;
  while(n!=0){
  remainder=n%10;
  reversed=reversed*10+remainder;
    n/=10;
  if(original==reversed)
  Printf("%d is palindrome", original);
  else
  printf("%d is not a palindrome", original);
  return 0;
 }
```

out put:

Enter an integer :1001

1001 is a palindrome.

Armstrong number in a given range

```
#include<stdio.h>
#include<math.h>
 int main() {
int low, high, number, original number, rem, count = 0;
double result = 0.0;
Printf("enter two numbers(intervals):");
scanf("%d %d", &low, &high);
Printf("Armstrong numbers blw %d and %d are:",
                                    low, high);
 if (high< low){
   high+ = low;
   low = high -low;
    high-= low;
   }
 for (number = low+1; number < high; ++number){
  original number = number;
while(original number != 0){
   original number /=10;
    ++count;
   }
  original number = number;
 while (original number != 0){
    rem = original number %10;
     result+ = pow(rem, count);
     original number /= 10;
   }
   if((int) result == number){
   Printf("%d", number);
   }
   count = 0;
   result = 0;
   }
   return 0;
  }
```

Out put:

Enter two numbers: 200 2000

Armstrong numbers blw 200 and 2000

fibonacci series up to nth term

```
#include <stdio.h>
  int main() {
   int i,n;
   int t1=0 , t2=1
   int next term = t1+ t2;
  Printf("Enter the number of terms:");
  scanf("%d",&n);
  Printf("fibonacci series: %d,%d,", t1,t2);
 for(i=3; i<=n; ++i) {
  Printf("%d ", next term);
     t1=t2;
     t2 =next term;
    next term = t1+t2;
   }
 return 0;
 }
```

Out put:

Enter the number of terms :10

fibonacci series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34