2.a Write a program using while loop to reverse the digits of number

→

```
#include <stdio.h>

int main () {
int num, sum, rem;
 sum = 0

printf("Enter an integer :\n");
scanf("%d", &sum);

    while (num != 0) {
     rem = num %. 10;
     sum = sum x 10 + rem;
     num = num / 10;
}
printf("Reversed number = %d", sum);
  return 0;
}
```

2.b Write a program to calculate the factorial of a given number

→

```
#include <stdio.h>

int main() {

int i, f = 1, num;

printf("Input the number:");
scanf("%d\n", &num);

for (i = 1; i <= num; i++) {
    f = f * i;
}
printf("The Factorial of %d is: %d\n", num
                                    f);
return 0;
}
```

2. d Write a program to print the Fibonacci Series

```
#include <stdio.h>
int main () {

int i, n;

int t1 = 0 , t2 = 1;

int next term = t1 + t2;

printf ("Enter the number of term :");
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;
}
```

Write a program to print day names of week. using switch case

```
#include <stdio.h>
int main() {
  int day;
printf("Enter any number (1-7): ");
 scanf("%d\n", &day);

 switch (day) {

 case 1: printf("Monday\n");
         break;
 case 2: printf("Tuesday\n");
         break;
 case 3: printf("Wednesday\n");
         break;
 case 4: printf("Thursday\n");
         break;
 case 5: printf("Friday\n");
         break;
 case 6: printf("Saturday\n");
         break;
 case 7: printf("Sunday\n");
         break;
default: printf("not a valid day!\n");
 }
  return 0;
}
```

Write a program to read three value from keyword and out the longest of them without using if statement.

```
#include<stdio.h>

int main() {

    int N1, N2, N3, lrg;

printf("Enter three numbers:");
 scanf("%d, %d, %d", &N1, &N2, &N3);

lrg = N1 > N2 ? (N1 > N3 ? N1 : N3) : (N2 > N3 ? N2 : N3)

printf("%d is the largest Number", lrg);

 return 0;
}
```

Write a program to print asterisks as

```
#include <stdio.h>

int main()
{
  int i, j, rows;
  printf("input no. of rows:");
  scanf("%d\n", &rows);

  for (i=1; i<=rows; i++) {
    for (j=1; j<=i, j++) {
      printf("*");
    }
    printf("\n");
  }
  return 0;
}
```

Write a program to print the pattern of asterisks as

```
* * * * *
* * * *
* * *
* *
*
```

```
# include <stdio.h>
int main()
{
  int i, j, rows;
  printf(" Enter the no. of rows:");
  scanf(" %d\n", &rows);

  for(i = rows; i >= 1; --i) {
      for(j = 1; j <= i; ++j ) }
       printf ("* ");
  }
    printf ("\n");
  }
  return 0;
}
```

12 Write a program to print Floyd's Triangle.

```
#include<stdio.h>

int main()
{
int n, i, c, a=1;
printf("Enter the number of rows:");
scanf("%d\n", &n);

for(i=1; i<=n; i++){
   for(c=1; c<=i; c++){
     printf("%d", a);
     a = a+1
   }
     printf("\n");
}
  return 0;
}
```

13 Write a program to print area of square using functions.

```
#include <stdio.h>

void sq area (int n);

int main () {

   int side = 5;

   Square (side);

printf ("%d\n", square (side));
return 0;
}
int sq area (int n) {
    return n * n;
}
```

Write a program using recursive function Eg: of factorial.

```
# include <stdio.h>
 int fact(int n);

 int main() {
   int n;
   printf(" Enter a positive integer:");
   scanf("%d", &n);

   printf (" Factorial of %d = %d", fact(n));
    return 0;
 }

 int fact(int n) {
      if (num >= 1) {
        return n * fact (n-1)
   } else {
      return 1;
 }
```

Write a program ~~to~~ using function go to statement

```
#include <stdio.h>

int main() {
  int n
   for(;;) {
    printf("Enter any number:");
    scanf("%d" &n);
      if (n == 5)
        goto ap;
      if (n % 2 == 0)
          continue;
      if (n % 3 == 0)
        break;
      printf ("Inside loop");
    }

ap:
  printf ("Outside loop");
  return 0;
}
```

Write a program to square root, abs() value using function.

```
#include <stdio.h>
#include <stdimath.h>

int main() {
   int num, a;
  printf("Please enter a number: \n");
  scanf("%d", &num);
  a = abs(num);
  printf("calculated absolute value is: %d\n", a);
   a = sqrt(num);
  printf("calculated squareroot value is : %d\n", a);
  return 0;
}
```

Write a program to read a matrix of m*n.

```
#include <stdio.h>
int main (){
   int i, j, c, r;
   int a[10][10];
   printf("Enter the value for row and column:");
   scanf("%d %d", &c, &r);
   for(i=0; i<c; i++){
     for (j=0; j<r; i++) {
     scanf("%d", &a[i][j]);
     }
     printf("\n");
   }
   printf("Matrix:\n");

   for(i=0, i<c; i++){
     for(j=0, j<r; j++){
     printf("\t%d", &a[i][j]);
     }
     printf("\n");
   }
   return 0;
}
```

Write a program to sort the elements of array in ascending or descending order.

```
#include <stdio.h>
int main(){
int a[5] = {27, 11, 8, 22, 13};
int t=0;
int i, j;
printf("Array Elements Before sort:\n");
for(i=0; i<5; i++)
   printf("%d", a[i]);
   for(i=0; i<5, i++){
      for(j=i+1; j<5, j++){
      if(a[i] > a[j])
      {
      t = a[i];
      a[i] = a[j]
      a[j] = t;
      }
   }
}
printf("Array Element After Sort:\n");
for(i=0, i<5; i++){
   printf("%d", a[i]);
}
return 0;
}
```

Write a program to find the given string is palindrome or not

```
# include <stdio.h>
# include <string.h>

void isPal(char s[]){
  int l = 0;
  int h = strlen(s)-1;
  while(h>l){
    if(s[l++] != s[h--]){
      printf("%s: not a palindrome\n", s);
      return;
    }
  }
  printf("%s: palindrome\n", s);
}

int main(){
    isPal("hello");
    isPal("madam");
    return 0;
}
```

Write a program to using strlen(), strcmp. function

```
# include <stdio.h>
# include <string.h>

int main () {
    int i;
    i = strlen ("Hello");
    printf ("\n %d", i);
    i = strcmp("Hello!","World");
    printf ("\n %d", i);
    return 0;
    }
```

Write a program to display the values using different data types and its address using pointer.

```
#include <stdio.h>
int main(){
int v1;
float v2;
char v3;
int *p1;
float *p2;
char *p3;
v1 = 11;
v2 = 3.14;
v3 = 'Y';
p1 = &v1;
p2 = &v2;
p3 = &v3;
printf("Address of v1 = %u\n", &v1);
printf("Value of v1 = %d\n", *p1);
printf("Address of v2 = %u\n", &v2);
printf("Value is = %f\n", *p2);
printf("Address of v3 = %u\n", &v3);
printf("value is = %c\n", *p3);
return 0;
}
```

Write a program to perform addition and subtraction using pointer.

```
#include <stdio.h>
int main() {
int num1, num2, *p, *q, sum1;
printf("Enter any two integer :\n");
scanf("%d, %d", &num1 &num2);
p = &num1;
q = &num2;
    int Sum2;
    sum1 = *p + *q;
    sum2 = *p - *q;

    printf("Sum 1 = %d\n", sum1);
    printf("Sum 2 = %d\n", Sum2);
    return 0;
}
```

Write a program to print the structure using
· Title · Author · Subject · Book ID.

```
# include <stdio.h>
# include <string.h>
 struct Book {
      char title [50];
      char author [50];
      char subject [100];
      int book_id;
 };
 int main () {
      struct Book b1;
 strcpy (b1.title, "One peice");
 strcpy (b1.author, "Oda Ichiro");
 strcpy (b1.subject, "Adventure");
   b1.book_id = 106691438;

   printf ("Book title = %.s\n", b1.title);
   printf ("Book author = %.s\n", b1.author);
   printf ("Book subject = %.s\n", b1.subject);
   printf ("Book ID = %.d\n" , b1.book_id);

   return 0;
}
```