This is my c programming note

```
//absolute value
int n,;
   printf("Enter a value : ");
    scanf("%d",&n);
    printf("Absolute value is = %d",abs(n));
    return 0;
```

```
//add and avg between two number
int num1,num2,sum=0;
    printf("Enter two number : ");
    scanf("%d%d",&num1,&num2);
    sum=num1+num2;
    printf("Sum = %d\n",sum);
    float avg=(float)sum/2;
    printf("Average = %.1f",avg);
    return 0;
```

```
//asci value
char num;
   printf("Enter any ASCII character : ");
   scanf("%c",&num);
   printf("The ASCII value is %d",num);
   return 0;
```

```
//centigrade to Fahrenheit conversion
   double c,f,k;
   printf("Enter centigrade temperature : ");
   scanf("%lf",&c);
   printf("Centigrade temperature is = %.2lf\n",c);
   f=1.8*c+32;
   k=c+273;
   printf("Fahrenheit temperature is = %.2lf\n",f);
   printf("kelvin temperature is = %.2lf",k);
   return 0
```

```
// Fahrenheit to centigrade conversion
    double c,f,k;
    printf("Enter Fahrenheit temperature : ");
    scanf("%lf",&f);
    printf("Fahrenheit temperature is = %.2lf\n",f);
    c=5.0/9*(f-32);
    printf("Centigrade temperature is = %.2lf\n",c);
    k=5.0/9*(f-32)+273;
    printf("kelvin temperature is = %.2lf",k);
    return 0;
```

```
//circle area
  double r,area=0;
 printf("Enter radios : ");
   scanf("%lf",&r);
   area=3.1416*r*r;
   printf("\nArea = %.2lf",area);
   getch();
```

```
//Decimal to Hexa-decimal
   int num;
   printf("Enter a Decimal number : ");
   scanf("%d",&num);
   printf("The Hexa-Decimal number is = %x",num);
   getch();
```

```
//Hexa-decimal to decimal
   /*int num;
   printf("Enter a Hexa-decimal number : ");
   scanf("%x",&num);
   printf("The Decimal number is = %d",num);
   getch();
   */
```

```
//Decimal to octal
   int num;
   printf("Enter a Decimal number : ");
   scanf("%d",&num);
   printf("The octal number is = %o",num);
   getch();
```

```
//octal to decimal
   int num;
   printf("Enter a Octal number : ");
   scanf("%o",&num);
   printf("The Decimal number is = %d",num);
   getch();
```

```
//escape-sequence
   int i;
   double d;
   float f;
   char ch;
   printf("Size of integer = %d bytes\n",sizeof(i));
   printf("Size of double = %d bytes\n",sizeof(d));
   printf("Size of float = %d bytes\n",sizeof(f));
   printf("Size of char = %d byte\n",sizeof(ch));
   return 0;
```

Function

```
//using function
int sum(int a,int b,int c)
{
   return a+b+c;//sum
}

int sub(int a, int b)
{
   return a-b;//sub
}
int mul(int a, int b)
{
   return a*b;//mul
}
float dev(float a, float b)
{
   return a/b;  //division
}
```

```
int mol(int a, int b)
{
   return a%b;  //moduls
}



int main()
{
   int num1,num2,num3;
   printf("Enter three number : ");
   scanf("%d%d%d",&num1,&num2,&num3);
   printf("Result = %d",sum(num1,num2,num3));
   printf("\nResult = %d",sub(num1,num2));
   printf("\nResult = %d",mul((float)num1,(float)num2));
   printf("\nResult = %.2f",dev(num1,num2));
   printf("\nResult = %d",mol(num1,num2));
   return 0;
}
```

```
//square using by function
int sqr(int a)
{
   return a*a;
}
int main()
{
   int n;
   printf("Enter any integer number : ");
   scanf("%d",&n);
   printf("\n\nResult = %d",sqr(n));
   getch();
}
```

```
//area of a triangle by function

double area(double a, double b)
{
   return 0.5*a*b;
}
```

```
int main()
{
   double length,width;
   printf("Length = ");
   scanf("%lf",&length);
   printf("Width = ");
   scanf("%lf",&width);
   printf("Area = %.2lf\n",area(length,width));
   getch();
}
```

End function

```
//leap year
   int year;
   printf("Enter a valid year : ");
   scanf("%d",&year);
   if(year%400==0||year%4==0&&year%100!=0)
   {
      printf("Leap year");
```

```
    }
    else
    {
        printf("Not leap year");
    }
    return 0;
```

```
//upper to lower
    char upper;
    printf("Enter a upper case letter : ");
    scanf("%c",&upper);
    printf("\nThe lower case letter is %c \n",upper+32);
    return 0;
```

```
    //lower to upper
    char lower;
    printf("Enter a lowercase letter : ");
    scanf("%c",&lower);
    printf("\nThe uppercase letter is %c \n",lower-32);
    return 0;
```

```
//Hexa-Decimal to octal
   int num;
   printf("Enter a Hexa-Decimal number : ");
   scanf("%X",&num);
   printf("The octal number is = %o",num);
   getch();
```

```
 //octal to decimal
   int num;
   printf("Enter a Octal number : ");
   scanf("%o",&num);
   printf("The Hexa-Decimal number is = %b",num);
   getch();
```

```
//Finding the root of a quadratic equation(দ্বিঘাত সমীকরণ এর মূল নির্ণয় )
   double a,b,c,d,x1,x2;
   printf("Enter the value of a,b&c : ");
   scanf("%lf%lf%lf",&a,&b,&c);
   d=b*b-4*a*c;
   if(d>=0)
   {
```

```
    x1=-b+sqrt(d)/2*a;
    x2=-b-sqrt(d)/2*a;
    printf("X1 = %.2lf\n",x1);
    printf("X2 = %.2lf",x2);
  }
  else
  {
    printf("Complex Number");
  }
  return 0;
```

```
//Rectangle  area(without function)
  double length, wigth,area=0;
  printf("Length = ");
  scanf("%lf",&length);
  printf("Wigth = ");
  scanf("%lf",&wigth);
  area=length*wigth;
  printf("Area = %.2lf",area);
  return 0;
```

```
//some basic topics about library function
    double n,x,y,z,r;
    printf("Enter a x y z r : ");
    scanf("%lf",&n);
    scanf("%lf",&x);
    scanf("%lf",&y);
    scanf("%lf",&z);
    scanf("%lf",&r);
    printf("%.0lf Square Root is = %.2lf\n",n,sqrt(n));
    printf("%.0lf Power %.0lf = %.2lf\n",x,y,pow(x,y));
    printf("log(%.0lf) = %.2lf\n",x,log(x));
    printf("log10(%.0lf) = %.2lf\n",y,log10(y));
    printf("The exponential value of %.0lf is = %.2lf\n",z,exp(z));
    printf("The value of sin(%.0lf) is = %.2lf\n",z,sin(z));
    printf("The value of cos(%.0lf) is = %.2lf\n",z,cos(z));
    printf("round value of %.4lf is = %.4lf\n",r,round(r));
    printf("trunc value of %.4lf is = %lf\n",r,trunc(r));
    printf("celling value of %.4lf is = %lf\n",r,ceil(r));
  return 0;
```

```
//some basic topics about library function-2
   double n,x,y,z,r;
   printf("Enter r : ");
   scanf("%lf",&r);
   printf("round value of %.4lf is = %.4lf\n",r,round(r));
   printf("trunc value of %.4lf is = %lf\n",r,trunc(r));
   printf("ceiling value of %.4lf is = %lf\n",r,ceil(r));
   printf("floaring value of %.4lf is = %lf\n",r,floor(r));
   return 0;
```

```
//Write a program to find the area of a triangle where given base and hight.
  /* float base, hight;
   printf("Base = ");
   scanf("%f",&base);
   printf("Hight = ");
   scanf("%f",&hight);
   float area= 1.0/2 * base * hight;
   printf("Area = %.2f\n",area);
   return 0;*/
```

```
//Write a program to find the area of a triangle given the lengths of three sides
   double a,b,c,s,area;
   scanf("%lf%lf%lf",&a,&b,&c);
   s=(a+b+c)/2;
   area=sqrt(s*(s-a)*(s-b)*(s-c));
   printf("Area = %lf",area);
   return 0;
```

```
//uppercase to lower case by library function
   char upper,lower;
   printf("Enter any Uppercase letter : ");
   scanf("%c",&upper);
   lower=tolower(upper);
   printf("The lowercase letter is = %c",lower);
   return 0;
```

```
//lowercase to uppercase by library function
   char upper,lower;
   printf("Enter any Lowercase letter : ");
   scanf("%c",&lower);
   upper=toupper(lower);
   printf("The Uppercase letter is = %c",upper);
```

```
   return 0;
```

```
//even or odd
   int num;
   printf("Enter an integer number : ");
   scanf("%d",&num);
   if(num%2==0)
     printf("\n\nThis is a even number.\n\n");
   else
     printf("\n\nOdd number.\n\n");
   return 0;
```

```
//maximum number between two number
   int num1,num2;
   printf("Enter two number : ");
   scanf("%d%d",&num1,&num2);
   if(num1==num2)
      printf("\nThis number is equal.\n");
   else if(num1>num2)
      printf("\nThe Maximum number is = %d\n",num1);
   else
      printf("\nThe Maximum number is = %d\n",num2);
```

```
    return 0;
```

```
//maximum number between three number
    int num1,num2,num3;
    printf("Enter three number : ");
    scanf("%d%d%d",&num1,&num2,&num3);
    if(num1==num2)
        printf("\nThis number is equal.\n");
    else if(num1>num2&&num1>num3)
        printf("\nThe Maximum number is = %d\n",num1);
    else if(num2>num3)
        printf("\nThe Maximum number is = %d\n",num2);
    else
        printf("\nThe Maximum number is = %d\n",num3);
    return 0;
```
