```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    printf("Student Name: Angat Shah\n");
    printf("Branch: B.Tech. Computer Science and Engineering\n");
    printf("Enrollment Number: 202203103510097\n");
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
#define PI 3.14
int main()
{
    float a,r;
    printf("Enter the value of radius for area of circle: ");
    scanf("%f",&r);
    a=PI*r*r;
    printf("The Area of circle is %.2f.\n",a);
    return 0;
}
```

```
 1  //Branch: B.Tech Computer Science and Engineering
 2  //Name: Angat Nayanbhai Shah
 3  //Enrollment No:202203103510097
 4  #include<stdio.h>
 5  #define PI 3.14
 6  int main()
 7  {
 8      float v,r,h;
 9      printf("Enter the value of radius for volume of cylinder: ");
10      scanf("%f",&r);
11      printf("Enter the value of height of cylinder: ");
12      scanf("%f",&h);
13      v=PI*r*r*h;
14      printf("The Volume of cylinder is %.2f.\n",v);
15      return 0;
16  }
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    float C,F;
    printf("Enter the value of temperature in fahrenheit: ");
    scanf("%f",&F);
    C=(F-32)*5/9;
    printf("The value of temperature is %.2f in celsius.\n",C);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int date,month,year;
    printf("Enter the date: ");
    scanf("%d",&date);
    printf("Enter the month: ");
    scanf("%d",&month);
    printf("Enter the year: ");
    scanf("%d",&year);
    switch(month)
    {
        case 1:
            printf("JANUARY.\n");
            break;
        case 2:
            printf("FEBRUARY.\n");
            break;
        case 3:
            printf("MARCH.\n");
            break;
        case 4:
            printf("APRIL.\n");
            break;
        case 5:
            printf("MAY.\n");
            break;
        case 6:
            printf("JUNE.\n");
            break;
        case 7:
            printf("JULY.\n");
            break;
        case 8:
            printf("AUGUST.\n");
            break;
        case 9:
            printf("SEPTEMBER.\n");
            break;
        case 10:
            printf("OCTOBER.\n");
            break;
        case 11:
            printf("NOVEMBER.\n");
            break;
        case 12:
            printf("DECEMBER.\n");
            break;
        default:
            printf("ERROR.\n");
            break;
    }
    printf("%d/%d\n",date,year);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int number;
    printf("Enter an integer: ");
    scanf("%d",&number);
    if (number%5==0)
    {
        printf("%d is divisible by 5.\n",number);
    }
    else
    {
        printf("%d is not divisible by 5.\n",number);
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int cdate,cmonth,cyear,bdate,bmonth,byear,years,months,days;
    printf("Enter the current date: ");
    scanf("%d",&cdate);
    printf("Enter the current month: ");
    scanf("%d",&cmonth);
    printf("Enter the current year: ");
    scanf("%d",&cyear);
    printf("Enter the birth date: ");
    scanf("%d",&bdate);
    printf("Enter the birth month: ");
    scanf("%d",&bmonth);
    printf("Enter the birth year: ");
    scanf("%d",&byear);
    years=cyear-byear;
    if(cmonth>bmonth)
    {
        months=cmonth-bmonth;
    }
    else if(bmonth>cmonth)
    {
        months=bmonth-cmonth;
    }
    if(cdate>bdate)
    {
        days=cdate-bdate;
    }
    else if(bdate>cdate)
    {
        days=bdate-cdate;
    }
    printf("Your age is %d years, %d months, %d days.\n",years,months,days);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int marks;
    printf("Enter your marks(0-100): ");
    scanf("%d",&marks);
    if(100>=marks && marks>=80)
    {
        printf("DISTINCTION.\n");
    }
    else if(79>=marks && marks>=60)
    {
        printf("FIRST CLASS.\n");
    }
    else if(59>=marks && marks>=40)
    {
        printf("SECOND CLASS.\n");
    }
    else if(40>=marks && marks>=0)
    {
        printf("FAIL.\n");
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int day;
    printf("Enter the number of the day: ");
    scanf("%d",&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("ENTER VALID DAY.\n");
        break;
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include <stdio.h>
int main()
{
  int i,n,t1 = 0, t2 = 1;
  int t3 = t1 + t2;
  printf("Enter the number of terms: ");
  scanf("%d", &n);
  printf("Fibonacci Series: %d %d ", t1, t2);
  for (i=2;i<n;i++)
  {
    t3 = t1 + t2;
    printf("%d ",t3);
    t1 = t2;
    t2 = t3;
  }
  printf("\n");
  return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include <stdio.h>
int main()
{
    int n,fd,ld;
    printf("Enter a number: ");
    scanf("%d", &n);
    ld = n % 10;
    while(n >= 10)
    {
        n = n / 10;
    }
    fd = n;
    printf("Sum of first and last digit number is = %d.\n",fd+ld);
    return 0;
}
```

```
1  //Branch: B.Tech Computer Science and Engineering
2  //Name: Angat Nayanbhai Shah
3  //Enrollment No:202203103510097
4  #include<stdio.h>
5  int main()
6  {
7      for(int i=1;i<=5;i++)
8      {
9          for(int j=1;j<=i;j++)
10         {
11             printf("%d",j);
12         }
13         printf("\n");
14     }
15     return 0;
16  }
```

```
 1  //Branch: B.Tech Computer Science and Engineering
 2  //Name: Angat Nayanbhai Shah
 3  //Enrollment No:202203103510097
 4  #include<stdio.h>
 5  int main()
 6  {
 7      for(int i=1;i<=5;i++)
 8      {
 9          for(int s=i;s<5;s++)
10          printf(" ");
11          for(int j=1;j<=i;j++)
12          printf(" *");
13          printf("\n");
14      }
15      return 0;
16  }
```

```
1  //Branch: B.Tech Computer Science and Engineering
2  //Name: Angat Nayanbhai Shah
3  //Enrollment No:202203103510097
4  #include<stdio.h>
5  int main()
6  {
7      for(int i=5;i>=1;i--)
8      {
9          for(int s=i;s<5;s++)
10         printf(" ");
11         for(int j=1;j<=i;j++)
12         printf(" *");
13         printf("\n");
14     }
15     return 0;
16 }
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int i,j;
    for(i='E';i>='A';i--)
    {
        for(j='A';j<=i;j++)
        {
            printf("%c",j);
        }
        printf("\n");
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int add();
int main()
{
    add();
}
int add()
{
    int i,n,sum=0;
    printf("Enter the number: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        sum+=i;
    }
    printf("Sum of first %d number is %d\n",n,sum);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
 #include<stdio.h>
int swap(int,int);
int main()
{
    int x,y;
    printf("Enter the value of x and y: ");
    scanf("%d%d",&x,&y);
    printf("Before Swapping\nValue of x is %d and y is %d\n",x,y);
    swap(x,y);
}
int swap(int x,int y)
{
    x=x+y;
    y=x-y;
    x=x-y;
    printf("After Swapping\nValue of x is %d and y is %d\n",x,y);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int upr(char[]);
int main()
{
    char s[20];
    printf("Enter string: ");
    scanf("%s",s);
    upr(s);
}
int upr(char s[20])
{
    int i;
    printf("%s in upper case is ",s);
    for(i=0;s[i];i++)
    {
        if(s[i]>96 && s[i]<123)
        {
            s[i]-=32;
        }
    }
    printf("%s.\n",s);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int rollno[20],marks[20],i;
    for(i=0;i<20;i++)
    {
        printf("Enter the roll number of the student: ");
        scanf("%d",&rollno[i]);
        printf("Enter the marks of roll number %d: ",rollno[i]);
        scanf("%d",&marks[i]);
    }
    for(i=0;i<20;i++)
    {
        printf("Marks of Roll Number %d is %d.\n",rollno[i],marks[i]);
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int n,i,j,arr[11],swap;
    printf("Enter number of elements you want to sort: ");
    scanf("%d",&n);
    printf("Enter %d integers\n",n);
    for(i=0;i<n;i++) //for storing the elements
    {
        scanf("%d",&arr[i]);
    }
    for(i=0;i<n-1;i++) //pass
    {
        for(j=0;j<n-i-1;j++)
        {
            if(arr[j]>arr[j+1])
            {
                swap=arr[j];
                arr[j]=arr[j+1];
                arr[j+1]=swap;
            }
        }
    }
    printf("Bubble sort for the given order is\n");
    for(i=0;i<n;i++) //for printing the bubble sort order
    {
        printf("%d\n",arr[i]);
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include <stdio.h>
int main()
{
    int array[100],n,c,d,position,t;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter %d integers.\n", n);
    for (c = 0; c < n; c++)
    scanf("%d", &array[c]);
    for (c = 0; c < (n - 1); c++) // finding minimum element (n-1) times
    {
        position = c;
        for (d = c + 1; d < n; d++)
        {
            if (array[position] > array[d])
            {
            position = d;
            }
        }
        if (position != c)
        {
            t = array[c];
            array[c] = array[position];
            array[position] = t;
        }
    }
    printf("Sorted list in ascending order:\n");
    for (c = 0; c < n; c++)
    {
        printf("%d\n", array[c]);
    }
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
#include<string.h>
int main()
{
    char s1[101],s2[101];
    int l1,l2;
    printf("Enter the first string: ");
    scanf("%s",s1);
    printf("Enter the second string: ");
    scanf("%s",s2);
    l1=strlen(s1);
    l2=strlen(s2);
    printf("The length of first string is %d\n",l1);
    printf("The length of second string is %d\n",l2);
    printf("Result of comparison of both the string is %d\n",strcmp(s1,s2));
    printf("The concatenation of both the string is %s\n",strcat(s1,s2));
    printf("Result of copying one string to other is %s\n",strcpy(s1,s2));
    return 0;
}
```

```c
   1 //Branch: B.Tech Computer Science and Engineering
   2 //Name: Angat Nayanbhai Shah
   3 //Enrollment No:202203103510097
   4 #include <stdio.h>
   5 struct person
   6 {
   7     char name[21];
   8     char doj[11];
   9     float salary;
  10 };
  11 int main()
  12 {
  13     struct person p[101];
  14     int n,i;
  15     printf("Enter number of persons: ");
  16     scanf("%d",&n);
  17     for(i=0;i<n;i++)
  18     {
  19         printf("\n Enter %d Person Name : ",i+1);
  20         scanf("%s",p[i].name);
  21         printf("\n Enter Person Date of Joining (dd-mm-yy) : ");
  22         scanf("%s",p[i].doj);
  23         printf("\n Enter Person Salary : ");
  24         scanf("%f",&p[i].salary);
  25     }
  26     for(i=0;i<n;i++)
  27     {
  28         printf("\n Person %d Detail: ",i+1);
  29         printf("\n Name = %s",p[i].name);
  30         printf("\n Date Of Joining = %s",p[i].doj);
  31         printf("\n Salary = $%.2f",p[i].salary);
  32         printf("\n");
  33     }
  34     printf("\n");
  35     return 0;
  36 }
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
struct cricket
{
    char Player_name[50];
    char Team_name[50];
    float Batting_average;
};
int main()
{
    struct cricket s[5],t;
    int i,j,n=5;
    float p;
    printf("\nEnter data of %d players",n);
    for(i=0;i<n;i++)
    {
    printf("\nEnter Player_name Team_name Batting_Avg for player-%d = ",i+1);
    scanf("%s %s %f",s[i].Player_name,s[i].Team_name,&p);
    s[i].Batting_average=p;
    }
    for(i=1;i<=n-1;i++)
    {
    for(j=1;j<=n-i;j++)
    {
    if(strcmp(s[j-1].Team_name,s[j].Team_name)>0)
        {
            t=s[j-1];
            s[j-1]=s[j];
            s[j]=t;
        }
    }
}
    printf("\nAfter teamwise sorting... Player list is\n\n ");
    printf("Player Names Team Name Batting Average\n");
    for(i=0;i<n;i++)
    {
        printf("\n%-20s %-20s %.2f",s[i].Player_name,
        s[i].Team_name,s[i].Batting_average);
    }
    printf("\n");
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
struct time
{
    int hour;
    int minute;
    int second;
};
int main()
{
    struct time t[5];
    int i,j;
    for(i=0,j=1; i<5; i++,j++)
    {
        printf(">>>Enter times %d :\n",j);
        do
        {
            printf(">Enter hour :");
            scanf("%d",&t[i].hour);
        }while(t[i].hour>24 || t[i].hour<0);
        do
        {
        printf(">Enter minute :");
        scanf("%d",&t[i].minute);
        }while(t[i].minute>60 || t[i].minute<0);
        do
        {
        printf(">Enter second :");
        scanf("%d",&t[i].second);
        }while(t[i].second>60 || t[i].second<0);
    }
    for(i=0,j=1; i<5; i++,j++)
    {
        printf("\n->Time %d :%d:%d:%d",j,t[i].hour,t[i].minute,t[i].second);
    }
    printf("\n");
    return 0;
}
```

```
 1  //Branch: B.Tech Computer Science and Engineering
 2  //Name: Angat Nayanbhai Shah
 3  //Enrollment No:202203103510097
 4  #include<stdio.h>
 5  int main()
 6  {
 7      int a=11;
 8      int *p;
 9      p=&a;
10      printf("Address of variable 'a' is %d\n",p);
11      return 0;
12  }
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int swap(int*,int*);
int main()
{
    int a,b;
    printf("Enter the value of a: ");
    scanf("%d",&a);
    printf("Enter the value of b: ");
    scanf("%d",&b);
    printf("Before Swapping\nThe value of a is %d and value of b is %d\n",a,b);
    swap(&a,&b);
}
int swap(int *p1,int *p2)
{
    int temp;
    temp=*p1;
    *p1=*p2;
    *p2=temp;
    printf("After Swapping\n");
    printf("The value of a is %d and value of b is %d\n",*p1,*p2);
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
void main()
{
    char ch='a';
    char *p1;
    p1=&ch;
    int i;
    printf("character address is %d",p1);
    char charr[7]="amtics";
    char *p2[7];
    for(i=1;i<=7;i++)
    {
        printf("%d=%d \n",i,p2[i]);
    }
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
int main()
{
    int n;
    printf("Enter number of elements you want to sort: ");
    scanf("%d",&n);
    int a[n];
    int *p;
    p=a;
    for (int i=0;i<n;i++)
    {
        printf("Enter element %d: ",i+1);
        scanf("%d",&a[i]);
    }
    for (int j=0;j<n;j++)
    {
        for (int i = 0; i < n-1; i++)
        {
            if (*(p+i)>*(p+i+1))
            {
                int temp;
                temp=*(p+i);
                *(p+i)=*(p+i+1);
                *(p+i+1)=temp;
            }
        }
    }
    printf("Sorted array is:\n");
    for (int i=0;i<n;i++)
    {
        printf("%d ",a[i]);
    }
    printf("\n");
    return 0;
}
```

```
 1  //Branch: B.Tech Computer Science and Engineering
 2  //Name: Angat Nayanbhai Shah
 3  //Enrollment No:202203103510097
 4  #include<stdio.h>
 5  void main()
 6  {
 7      FILE *fp;
 8      char ch;
 9      fp=fopen("practical3.c","r");
10      do
11      {
12          ch=getc(fp);
13          putchar(ch);
14      }while(ch !=EOF);
15      fclose(fp);
16      printf("\n");
17  }
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int main()
{
    FILE *fptr1, *fptr2;
    char filename[100], c;
    printf("Enter the filename to open for reading \n");
    scanf("%s", filename);
    // Open one file for reading
    fptr1 = fopen(filename, "r");
    if (fptr1 == NULL)
    {
    printf("Cannot open file %s \n", filename);
    exit(0);
    }
    printf("Enter the filename to open for writing \n");
    scanf("%s", filename);
    // Open another file for writing
    fptr2 = fopen(filename, "w");
    if (fptr2 == NULL)
    {
        printf("Cannot open file %s \n", filename);
        exit(0);
    }
    // Read contents from file
    c = fgetc(fptr1);
    while (c != EOF)
    {
        fputc(c, fptr2);
        c = fgetc(fptr1);
    }
    printf("\nContents copied to %s", filename);
    fclose(fptr1);
    fclose(fptr2);
    printf("\n");
    return 0;
}
```

```c
//Branch: B.Tech Computer Science and Engineering
//Name: Angat Nayanbhai Shah
//Enrollment No:202203103510097
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int main()
{
    int n,i;
    printf("Enter the number of chracters inside the string.\n");
    scanf("%d",&n);
    char *p = (char*)malloc((n+1)*sizeof(char));
    if(p==NULL)
    {
        printf("Memory allocation fails..");
        exit(0);
    }
    puts("Enter string");
    for(i=0;i<(n+1);i++)
    scanf("%c",p+i);
    *(p+i)= '\0';
    printf("String entered %s",p);
    fflush(stdin);
    printf("\nEnter new size\n");
    scanf(" %d",&n);
    p = realloc(p,(n+1)*sizeof(char));
    puts("Enter new string");
    scanf("%d", &n);
    for(i=0;i<(n+1);i++)
    scanf("%c",p+i);
    *(p+i)= '\0';
    printf("New string \n%s",p);
    free(p);
    return 0;
}
```