```
/*
* QUE = to find sum of all the element of array using Dynamic Memory Allocation
* NAMe = Nikhil Kisan Khond
* Batch = PPA9
*/

    //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
void main()
{
	int *p;
	int n,i,sum=0;
	printf("enter how many number you want");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter element\n");
	for(i=0;i<n;i++)
	{
		scanf("%d",(p+i));
	}
	for(i=0;i<n;i++)
	{
		sum=sum+*(p+i);
	}
	printf("sum is %d\n",sum);
	getch();
}




/*
* Que = to sort the 1st half of array in ascending order and 2nd half of array in
descending order
	using DMA
* Name= Nikhil Kisan Khond
* Batch = PPA9
*/

    //    soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p;
	int i,j,n,temp;
	printf("enter a array element\n");
	scanf("%d",&n);
	p=(int*)malloc(sizeof(int));
```

```
	printf("enter a element\n");
	for(i=0;i<n-1;i++)
	{
		scanf("%d",(p+i));
	}
	for(i=0;i<n-1;i++)
	{
		for(j=0;j<n/2;j++)
		{
			if(*(p+i)>*(p+j))
			{
				temp=*(p+i);
				*(p+i)=*(p+j);
				*(p+j)=temp;
			}
		}
		for(j=n/2;j<n-1;j++)
		{
			if(*(p+i)<*(p+j))
			{
				temp=*(p+i);
				*(p+i)=*(p+j);
				*(p+j)=temp;
			}
		}
	}

		printf("sorting 1st half array in ascending order and 2nd half array in
descending order is\n");
		for(i=0;i<n-1;i++)
		{
			printf("%d",*(p+i));
		}


		getch();
	}



/*
* Que = to copy a array element into another array element
* Name = Nihil Kisan Khond
* Batch = PPA9
*/

    //  soluction

#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n;
	printf("enter a array element\n");
	scanf("%d",&n);
```

```
	p=(int*)malloc(sizeof(int));

	printf("enter a array element");
	for(i=0;i<n;i++)
	{
		scanf("%d",(p+i));
	}
	for(i=0;i<n;i++)
	{
		*(p+i)=*(p+i);
	}
	printf("original array element is\n");
	for(i=0;i<n;i++)
	{
		printf("%d",*(p+i));
	}
	printf("\ncopy of original array element\n");
	for(i=0;i<n;i++)
	{
		printf("%d",*(p+i));
	}
	getch();
}
```

```
/*
* Que = write a c program to sort only even number in given array using DMA
* Name = Nihil Kisan Khond
* Batch =PPA9
*/


//   soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int*p=NULL;
	int i,j,n,temp=0;
	printf("enter how many numberr you want");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter a element");
	for(i=0;i<n;i++);
	{
		scanf("%d",(p+i));
	}
	for(i=0;i<n;i++);
	{
		if(*(p+i)%2==0)
		{
```

```
                        for(j=i+1;j<n;j++)
                        {
                                if(*(p+j)%2==0)
                                {
                                        if(*(p+i)>*(p+j))
                                        {
                                                temp=*(p+i);
                                                *(p+i)=*(p+j);
                                                *(p+j)=temp;
                                        }
                                }
                        }
                }
        }
        printf("sorting only even number in ascending order is\n");
        for(i=0;i<n;i++)
        {
                printf("%d",*(p+i));
        }
        getch();
}
```

```
/*
* Que = write a c program to return position of pallindrome element in array using
        Dynamic memory allocation
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

    //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
        int *p=NULL;
        int i,n,j=0,rev=0,temp;
        printf("enter how many number you want\n");
        scanf("%d",&n);
        p=(int*)malloc(n*sizeof(int));
        printf("enter element are");
        for(i=0;i<n;i++)
        {
                scanf("%d",(p+i));
        }
        for(i=0;i<n;i++)
        {
                temp=*(p+i);

                while(*(p+i)>0)
                {
```

```
                        j=*(p+i)%10;
                        rev=rev*10+j;
                        *(p+i)=*(p+i)/10;
                }
                if(rev==temp)
                {
                        printf("%d is a pallindrome in array at position is\n",temp);
                }
        }
        getch();
}



/*
* Que = write a c program to seperate odd and even integer in same array using
        Dynamic Memory Allocation
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //   soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
        int*p=NULL;
        int i,n;
        printf("enter how many number you want\n");
        scanf("%d",&n);
        p=(int*)malloc(n*sizeof(int));
        printf("enter a element");
        for(i=0;i<n;i++)
        {
                scanf("%d",(p+i));
        }
        printf("even integer is\n");
        for(i=0;i<n;i++)
        {
                if(*(p+i)%2==0)
                {
                        printf("%d",*(p+i));
                }
        }

                printf("odd integer is\n");
                for(i=0;i<n;i++)
                {
                if(*(p+i)%2!=0)
                {
                        printf("%d",*(p+i));
                }
                }
                getch();
```

```
}
```

```
/*
* Que = write a c program to insert a new value in array using DYnamic Memory Allocation
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

    //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n,new_value;
	printf("enter how many element you want\n");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter elements are\n");
	for(i=0;i<n;i++)
	{
		scanf("%d",(p+i));
	}
	printf("please enterv a new value to inserted:");
	scanf("%d",&new_value);
	printf("after insertion new array is: \n");
	i=n-1;
	while(new_value<*(p+i) && i>=0)
	{
		*(p+i+1)=*(p+i);
		i--;
	}
	n++;
	*(p+i+1)=new_value;
	for(i=0;i<n;i++)
	{
		printf("%d\n",*(p+i));
	}
	getch();
}
```

```
/*
* Que = write a c program to delete an element at desire position in array using
	Dynamic Memory Allocation
* Name = Nikhil Kisan Khond
```

```
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
       int *p=NULL;
       int i,n,pos;
       printf("enter how many element you want");
       scanf("%d",&n);
    p=(int*)malloc(n*sizeof(int));
       printf("enter element");
       for(i=0;i<n;i++)
       {
              scanf("%d",(p+i));
       }
       printf("enter the position where to delete element:");
       scanf("%d",&pos);
       i=0;
       while(i!=pos-1)
       {
              i++;
       }
       while(i<n)
       {
              *(p+i)=*(p+i+1);
              i++;
       }
       n--;
       printf("new array is\n");
       for(i=0;i<n;i++)
       {
              printf("%d",*(p+i));
       }
       getch();
}



/*
* Que = to find max and min in array using Dynamic Memory Allocation
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
```

```c
void main()
{
	int *p=NULL;
	int i,n,max=0,min;
	printf("enter how many element you want");
	scanf("%d",&n);
    p=(int*)malloc(n*sizeof(int));
	printf("enter element");
	for(i=0;i<n;i++)
	{
		scanf("%d",(p+i));
	}
	for(i=0;i<n;i++)
	{
		if(*(p+i)>max)
		{
			max=*(p+i);
		}
	}
	min=*(p+0);
	for(i=0;i<n;i++)
	{
		if(*(p+i)<min)
		{
			min=*(p+i);
		}
	}
	printf("max is %d",max);
	printf("min is %d",min);

getch();
}


/*
* Que = to find seconnd largest number in an array using Dynamic Memory Allocation
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n,secondmax,max=0;
	printf("enter how many number you want\n");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter number");
	for(i=0;i<n;i++);
	{
	scanf("%d",(p+i));
```

```
        if(*(p+i) > max)
        {
                secondmax=max;
                max=*(p+i);
        }
        else if(secondmax < *(p+i))
        {
                secondmax=*(p+i);
        }
        }

                printf("secondmax is %d", secondmax);
        getch();

        }
```

```
/*
* Que = write a c program to find number of elements in array using DMA
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
        int *p=NULL;
        int i,j,n,count;
        printf("enter how many number you want\n");
        scanf("%d",&n);
        p=(int*)malloc(n*sizeof(int));
        printf("enter number");
        for(i=0;i<n;i++)
        {
        scanf("%d",(p+i));
        }
        for(i=0;i<n;i++)
        {
                for(j=0;j<n;j++)
                {
                        count=sizeof(*(p+j))/sizeof(int);
                }
                count=count+i;
        }
        printf("number of element in array is:%d",count);
        getch();
}
```

```c
	/*
* Que = write a c program to print alternate element in an array using DMA
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n;
	printf("enter how many number you want\n");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter number");
	for(i=0;i<n;i++)
	{
	scanf("%d",(p+i));
	}
	printf("alternnate element in an array :\n");
	for(i=0;i<n;i+=2)
	{
		printf("%d",*(p+i));
	}
	getch();
}







/*
* Que = write a c program to strore the squares of the element in an array using DMA
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n,square;
	printf("enter how many number you want\n");
```

```
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter number");
	for(i=0;i<n;i++)
	{
	scanf("%d",(p+i));
	}
	printf("store the squares of the element are :\n");
	for(i=0;i<n;i++)
	{
		square=(*(p+i))* (*(p+i));
		printf("%d",square);
	}
	getch();
}
```

```
/*
* Que = write a c program to find 2 element in the array such that difference between
them is largest
	using DMA
* Name = Nikhil Kisan Khond
*Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

void main()
{
	int *p=NULL;
	int i,n,max=0,min=0;
	printf("enter how many number you want\n");
	scanf("%d",&n);
	p=(int*)malloc(n*sizeof(int));
	printf("enter number");
	for(i=0;i<n;i++)
	{
	scanf("%d",(p+i));

		if(*(p+i)>max)
		{
			max=*(p+i);

		}
		min=*(p+0);
		if(*(p+i)<min)
		{
			min=*(p+i);
```

```
                }
                printf("difference between %d and %d is largets \n",max,min);
                getch();
        }



  /*
* Que = accept string with multiple spaces using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
        char ch;
        int i=0,j=0;
        char *str=NULL;
        str=(char*)malloc(sizeof(char));
        *(str+0)='\0';
        printf("please enter a string");
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
                {
                        j++;
                }
                str=(char*)realloc(str,j*sizeof(char));
                *(str+i)=ch;
                *(str+i+1)='\0';
                i++;

    } while(ch!='\n');
    printf("\nthe string is ");

        printf("%s",str);
        getch();
}




/*
* Que = print string with single space using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction
```

```c
#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
	char ch;
	int i=0,j=0;
	char *str=NULL;
	str=(char*)malloc(sizeof(char));
	*(str+0)='\0';
	printf("please enter a string");
	do
	{
		scanf("%c",&ch);
		if(ch!='\n')
		{
			j++;
		}
		str=(char*)realloc(str,j*sizeof(char));
		*(str+i)=ch;
		*(str+i+1)='\0';
		i++;

    } while(ch!='\n');
    printf("\nthe new string is ");
       i=0;

       while(*(str+i)!='\0')
       {
		while(*(str+i)==' ')
		{
			i++;
		}
		while(*(str+i)!=' '&&*(str+i)!='\0')
		{
			printf("%c",*(str+i));
			i++;
		}
		printf(" ");
       }
       getch();
}
```

```c
/*
* Que = count a number of character in string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction
```

```c
#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
	char ch;
	int i=0,j=0,count=0;
	char *str=NULL;
	str=(char*)malloc(sizeof(char));
	*(str+0)='\0';
	printf("please enter a string");
	do
	{
		scanf("%c",&ch);
		if(ch!='\n')
		{
			j++;
		}
		str=(char*)realloc(str,j*sizeof(char));
		*(str+i)=ch;
		*(str+i+1)='\0';
		i++;

    } while(ch!='\n');

	i=0;
	while(*(str+i)!='\0')
	{
		count++;
		i++;
	}
	printf("total number of char in string is %d\n",count);
	getch();
}




/*
* Que = print string in reverse order using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
	char ch;
	int i=0,j=0,count=0;
	char *str=NULL;
	str=(char*)malloc(sizeof(char));
```

```
        *(str+0)='\0';
        printf("please enter a string");
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
                {
                        j++;
                }
                str=(char*)realloc(str,j*sizeof(char));
                *(str+i)=ch;
                *(str+i+1)='\0';
                i++;

    } while(ch!='\n');

        i=0;
        while(*(str+i)!='\0')
        {
                count++;
                i++;
        }

        printf("\n the reverse string is\n");
        for(i=count-1;i>=0;i--)
        {
                printf("%c",*(str+i));
        }
        getch();
}



/*
* Que = count vowels and consonstants in given string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
        char ch;
        int i=0,j=0,count=0,vowels=0,conson=0;
        char *str=NULL;
        str=(char*)malloc(sizeof(char));
        *(str+0)='\0';
        printf("please enter a string");
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
```

```
		{
			j++;
		}
		str=(char*)realloc(str,j*sizeof(char));
		*(str+i)=ch;
		*(str+i+1)='\0';
		i++;

    } while(ch!='\n');


       for(i=0;*(str+i)!='\0';i++)
       {

       if(*(str+i)=='a'||*(str+i)=='e'||*(str+i)=='i'||*(str+i)=='o'||*(str+i)=='u')
		{
			vowels++;
		}
		else
		{
			conson++;
		}
       }
       printf(" vowels %d\n",vowels);
       printf(" conson %d\n",conson);
       getch();
}



/*
* Que = replace spacewith $ in string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
       char ch;
       int i=0,j=0;
       char *str=NULL;
       str=(char*)malloc(sizeof(char));
       *(str+0)='\0';
       printf("please enter a string\n");
       do
       {
		scanf("%c",&ch);
		if(ch!='\n')
		{
			j++;
		}
```

```
                str=(char*)realloc(str,j*sizeof(char));
                *(str+i)=ch;
                *(str+i+1)='\0';
                i++;

    } while(ch!='\n');


        printf(" \n new string\n");
        i=0;
        while(*(str+i)!='\0')
        {
                while(*(str+i)==' ')
                {
                        printf("$");
                        i++;
                }
                while(*(str+i)!=' '&&*(str+i)!='\0')
                {
                        printf("%c",*(str+i));
                        i++;
                }
                printf("$");
        }
        getch();
}



/*
* Que = print number of world in string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
        char ch;
        int i=0,j=0,n=0,count=0;
        char *str=NULL;
        str=(char*)malloc(sizeof(char));
        *(str+0)='\0';
        printf("please enter a string\n");
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
                {
                        j++;
                }
```

```
            str=(char*)realloc(str,j*sizeof(char));
            *(str+i)=ch;
            *(str+i+1)='\0';
            i++;

    } while(ch!='\n');


       i=0;
       while(*(str+i)!='\0')
       {
              if(*(str+i)==' ')
              {
                     i++;
              }
              else
              {
                     for(i=i;*(str+i)!=' '&&*(str+i)!='\0';i++)
                     {
                            j++;
                     }
                     if(j!=0)
                     {
                            count++;
                     }
                     j=0;
              }
       }

              printf("\n number of word in given string is %d",count);
              getch();
       }




/*
* Que = replace goodname in string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
       char ch;
       char mail[]="Hello Goodname";
       int i=0,j=0,n=0;
       char *str=NULL;
       str=(char*)malloc(sizeof(char));
       *(str+0)='\0';
       printf("please enter a string\n");
```

```
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
                {
                        j++;
                }
                str=(char*)realloc(str,j*sizeof(char));
                *(str+i)=ch;
                *(str+i+1)='\0';
                i++;

    } while(ch!='\n');

        for(i=6,j=0;*(str+i)!='\0';i++,j++)
        {
                mail[i]=*(str+j);
        }
        mail[i]='\0';

        printf("output=%s",mail);
        getch();
}




/*
* Que = print between b to y in given  string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
        char ch;
        int i=0,j=0;
        char *str=NULL;
        str=(char*)malloc(sizeof(char));
        *(str+0)='\0';
        printf("please enter a string\n");
        do
        {
                scanf("%c",&ch);
                if(ch!='\n')
                {
                        j++;
                }
                str=(char*)realloc(str,j*sizeof(char));
                *(str+i)=ch;
                *(str+i+1)='\0';
```

```
            i++;

    } while(ch!='\n');

       printf("\n\n  output");
       for(i=0;*(str+i)!='\0';i++)
       {
              if(*(str+i)>'a' && *(str+i)<'y')
              {
                     printf("%c",*(str+i));
              }
              if(*(str+i)==' ')
              {
                     printf(" ");
              }
       }
       getch();
}
```

```
/*
* Que = write a c program to print no of small capital and spaces digit in str using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
       char ch;
       int i=0,n=0,c=0,s=0,sp=0,d=0;
       char *str=NULL;
       str=(char*)malloc(sizeof(char));
       *(str+0)='\0';
       printf("please enter a string\n");
       do
       {
              scanf("%c",&ch);
              if(ch!='\n')
              {

              n++;
              str=(char*)realloc(str,j*sizeof(char));
              *(str+i)=ch;
              *(str+i+1)='\0';
              i++;
              }
    } while(ch!='\n');
```

```
	for(i=0;*(str+i)!='\0';i++)
	{
		if(*(str+i)>='A' && *(str+i)<='Z')
		{
			c++;
		}
		else if(*(str+i)>='a' && *(str+i)<='z')
		{
			s++;
		}
		else if(*(str+i)>='0' && *(str+i)<='9')
		{
			d++;
		}
		else if(*(str+i)==' ')
		{
			sp++;
		}
	}
		printf("\n capital letter %d\n  digit %d\n spaces %d",c,s,d,sp);
		getch();
	}
```

```
/*
* Que = print number of white spaces in given str using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
	char ch;
	int i=0,n=0,count=0;
	char *str=NULL;
	str=(char*)malloc(sizeof(char));
	*(str+0)='\0';
	printf("please enter a string\n");
	do
	{
		scanf("%c",&ch);
		if(ch!='\n')
		{

		n++;
		str=(char*)realloc(str,j*sizeof(char));
		*(str+i)=ch;
```

```
                *(str+i+1)='\0';
                i++;
                }
    }
       while(ch!='\n');

       for(i=0;*(str+i)!='\0';i++)
       {
              if(*(str+i)==' ')
              {
                     count++;
              }
       }
       printf("\n\n   number of spaces in given string=  %d",count);
       getch();
}




/*
* Que = print only last word in string using DMA
* Name = Nikhil Kisan Khond
* Batch = PPA9
*/

   //  soluction


#include<stdio.h>
#include<stdlib.h>
#include<conio.h>

void main()
{
       char ch;
       int i=0,n=0,index=0;
       char *str=NULL;
       str=(char*)malloc(sizeof(char));
       *(str+0)='\0';
       printf("please enter a string\n");
       do
       {
              scanf("%c",&ch);
              if(ch!='\n')
              {

              n++;
              str=(char*)realloc(str,n*sizeof(char));
              *(str+i)=ch;
              *(str+i+1)='\0';
              i++;
              }
    }
       while(ch!='\n');

       for(i;*(str+i)!=' ';i--)
```

```
        {
                index=i;
        }

        printf("\n last word ");
        for(index;*(str+index)!='\0';index++)
        {
                printf("%c",*(str+index));
        }
        getch();
}
```