Double linked list:

1)Employee details.

#include<stdio.h>

#include<string.h>

struct emp

{

char name[100];

int id;

float sal;

}e;

int main()

{

struct emp \*eptr;

eptr=&e;

strcpy(eptr->name,"kiran");

eptr->id=1234;

eptr->sal=50000;

printf("\n EMPLOYEE DETAILS ARE\n");

printf("\n NAME:%s",eptr->name);

printf("\n ID:%d",eptr->id);

printf("\n SALARY:%6.2f",eptr->sal);

}

2)#include<stdio.h>

int main()

{

int a[5]={10,20,30,40,50};

int \*ptr,i;

ptr=a;//ptr=&a[0];

printf("\n access array by using ptr[i] method\n");

for(i=0;i<5;i++)

{

printf("%d\t",ptr[i]);

}

return 0;

}

3)#include<stdio.h>

int main()

{

int a[5]={10,20,30,40,50};

int \*ptr,i;

ptr=a;//ptr=&a[0];

printf("\n access array by using \*ptr method\n");

for(i=0;i<5;i++)

{

printf("%d\t",\*ptr);

ptr++;

}

return 0;

}

Dynamic memory allocation:

malloc():

#include<stdio.h>

#include<stdlib.h>

int main()

{

int \*ptr;

int n,i;

printf("enter the size");

scanf("%d",&n);

ptr=(int \*)malloc(n\*sizeof(int));

if(ptr==NULL)

printf("\n memory is not allocated\n");

else

printf("\n memory is allocated\n");

printf("enter the %d elements",n);

for(i=0;i<n;i++)

{

scanf("%d",&ptr[i]);

}

printf("\n values and memory locations are\n");

for(i=0;i<n;i++)

{

printf("%d\t=%d\n",&ptr[i],ptr[i]);

}

free(ptr);

return 0;

}

calloc():

#include<stdio.h>

#include<stdlib.h>

int main()

{

int \*ptr;

int n,i;

printf("enter the size");

scanf("%d",&n);

ptr=(int \*)calloc(n,sizeof(int));

if(ptr==NULL)

printf("\n memory is not allocated\n");

else

printf("\n memory is allocated\n");

printf("enter the %d elements",n);

for(i=0;i<n;i++)

{

scanf("%d",&ptr[i]);

}

printf("\n values and memory locations are\n");

for(i=0;i<n;i++)

{

printf("%d\t=%d\n",&ptr[i],ptr[i]);

}

free(ptr);

return 0;

}

realloc():

#include<stdio.h>

#include<stdlib.h>

int main()

{

int \*ptr;

int n,i,n1,j;

printf("enter the size");

scanf("%d",&n);

ptr=(int \*)calloc(n,sizeof(int));

if(ptr==NULL)

printf("\n memory is not allocated\n");

else

printf("\n memory is allocated\n");

printf("enter the %d elements",n);

for(i=0;i<n;i++)

{

scanf("%d",&ptr[i]);

}

printf("enter no of elements to add");

scanf("%d",&n1);

n=n+n1;

ptr=(int \*)realloc(ptr,n\*sizeof(int));

printf("enter %d elements",n1);

for(;i<n;i++)

{

scanf("%d",&ptr[i]);

}

printf("\n after modification the elements are\n");

for(j=0;j<n;j++)

{

printf("%d\t=%d\n",&ptr[j],ptr[j]);

}

free(ptr);

return 0;

}

free():

#include<stdio.h>

int main()

{

int n,i=0,a[100];

scanf("%d",&n);

while(n!=0)

{

a[i]=n%16;

i++;

n=n/16;

}

for(i=i-1;i>=0;i--)

{

if(a[i]>=10&&a[i]<=15)

printf("%c",a[i]+55);

else

printf("%d",a[i]);

}

return 0;

}