

## برنامج ال base register

```
#include<iostream.h>
void main()
{
int logadd,basereg=10,ram=512,i;
for(i=1;i<=3;++i)
{
cout<<"Please enter logical address"<<"\t";
cin>>logadd;
if(logadd<=ram)
{
basereg=basereg+logadd;
if(logadd<basereg)
{
if(basereg>ram)
{
cout<<"Out of Ram"<<endl;
break;
}
cout<<"The new logical address is"<<"\t";
cout<<basereg<<endl;
}
}
else
cout<<"Out of Ram"<<endl;
}
}
```

برنامـج الـ fence register

```
#include<iostream.h>
void main()
{
int fencereg=10,logicaladd,i=0,ram=32;
for(i=0;i<=20;++i)
{
cin>>logicaladd;
if(logicaladd<=ram)
{
if (logicaladd>=fencereg)
cout<<"Program is accept"<<endl;
else
cout<<"Interropt"<<endl;
}
else
cout<<"out of memory"<<endl;
}
}
```

برنامج ال Interrupt

```
#include<iostream.h>
void main()
{
int logicaladdress,fencereg=10,i=0;
for(i=1;i<=15;++i)
{
cin>>logicaladdress;
if(logicaladdress>=fencereg)
cout<<"Program is accept"<<endl;
else
cout<<"Interrupt"<<endl;
}
}
```

## برنامج الـ limit and base register

```
#include<iostream.h>
void main()
{
int i=0,logadd,ram=256,rm=10,limit=0;
for(i=0;i<=4;++i)
{
cout<<"Please enter logical address"<<"\t";
cin>>logadd;
limit=logadd+rm;
if(logadd<=ram)
{
if(logadd<limit)
{
cout<<"logadd is accept"<<endl;
logadd=logadd+rm;
}
else
{
cout<<"trup,address error"<<endl;
}
}
else
{
cout<<"Out of Ram"<<endl;
break;
}
cout<<"New logical address="<<logadd<<endl;
}
limit=limit+logadd;
}
```

برنامـج الـ pagging

```

#include<iostream.h>
#include<math.h>
void main()
{
int
size,progsize,frame[12]={5,11,10,12,8,0,1,3,7,9,100,14},Pagenu
,userprg,pageta,i=0,max=0,max1=0,MM,j=0;
cout<<"please enter program size"<<"\t";
cin>>progsize;
cout<<"please enter size of word"<<"\t";
cin>>size;
Pagenu=(progsize/size);
if(progsize%size>0)
{
    Pagenu=Pagenu+1;
    cout<<"Page number = "<<Pagenu<<endl;
    userprg=Pagenu-1;
    cout<<"Page number = "<<Pagenu<<"\t"; //This
for page table
    pageta=Pagenu+1;
    cout<<"userprg = "<<userprg<<"\t"<<"pageta =
"<<pageta<<endl;
    cout<<"Page table"<<endl;
    for(i=0;i<=userprg+1;++i)
        cout<< "P" <<i<<" = "<<frame[i]<<endl;
    frame[i]=max;
        for(i=0;i<pageta;++i)
        {
            if(frame[i]>frame[i+1])
            {
                max=frame[i];
                frame[i]=frame[i+1];
                frame[i+1]=max;
            }
        }
}

```

```

        }

        cout<<"max = "<<max<<endl;
        for(i=0;i<pageta+1;++i)
        {
        if(frame[i]>frame[i+1])
        {
        max1=frame[i];
        frame[i]=frame[j];
        frame[j]=max1;
        }
        }

        cout<<"frame[j] = "<<max1<<endl;
        if(MM>=max1)
        {
        for(j=0;j<=max1;++j)
        {
        MM=frame[j];
        cout<< "P " <<j<<" In Physical Address
        "<<frame[i]<<endl;
        }
        }
        else
        cout<<"00000000";
    }

    else
    {
    userprg=Pagenu-1;
    cout<<"Page number = "<<Pagenu<<"\t"; //This
for page table
    pageta=Pagenu+1;
    cout<<"userprg = "<<userprg<<"\t"<<"pageta =
    "<<pageta<<endl;
    cout<<"Page table"<<endl;
    for(i=0;i<=userprg+1;++i)
    cout<< "P" <<i<<" = "<<frame[i]<<endl;
}

```

```

frame[i]=max;
for(i=0;i<pageta;++i)
{
if(frame[i]>frame[i+1])
{
max=frame[i];
frame[i]=frame[i+1];
frame[i+1]=max;
}
}
cout<<"max = "<<max<<endl;
for(i=0;i<pageta;++i)
{
if(frame[i]>frame[i+1])
{
max1=frame[i];
frame[i]=frame[j];
frame[j]=max1;
}
}
cout<<"frame[j] = "<<frame[j]<<endl;
for(j=0;j<=pageta;++j)
{
MM=frame[j];
cout<< "P " <<j<<" In Physical Address
"<<MM<<endl;
}
}
}

```

## برنامـج الـ segmentation

```
#include<iostream.h>
void main()
{
int
seg,limit[4]={100,200,300,400},base[4]={130,230,330,430},i=0;
for(i=0;i<=3;++i)
{
    cin>>seg;
    for(i=0;i<=3;++i)
        if(seg<=limit[i])
        {
            seg=seg+base[i];
            base[i]=base[i]+seg;
            cout<<" 1 In Memory ="<<seg<<endl;
            cout<<base[i]<<endl;
            break;
        }
    else
    {
        cout<<"0"<<endl;
    }
    for(i=0;i<=3;++i)
    {
        limit[i]=limit[i]-seg;
    }
}
cin>>seg;
}
```

برنامج ال priority

```

//Priority
#include<iostream.h>
void main()
{
int job[4]={15,5,35,25},i,w=0,t=0,a,c;
float TT=0,TW=0;
w=0;
cout<<"Please enter - 0 - to (( low )) or - 1 - to (( high ))
"<<"\t";
cin>>c;
switch (c)
{
case 0:
{
cout<<"Case Low"<<endl;
for(i=0;i<4;++i)
if(job[i]>job[i+1])
{
a=job[i];
job[i]=job[i+1];
job[i+1]=a;
}
cout<<"Job"<<"\t"<<"Bursttime
"<<"\t"<<"\t"<<"Time"<<"\t"<<"\t"<<"Wait"<<endl;
for(i=0;i<4;++i)
{
t=t+job[i];
TT=TT+t;
TW=TW+w;

cout<<i<<"\t"<<job[i]<<"\t"<<"\t"<<"\t"<<t<<"\t"<<"\t"<<w<<endl;
w=t;
}

```

```

cout<<"\t"<<"\t"<<"\t"<<"Toteltime ~ "<<TT/4<<"\t";
cout<<"Totelwait ~ "<<TW/4<<endl;
    };break;
case 1:
{
    cout<<"Case High"<<endl;
    for(i=0;i<4;++i)
        if(job[i]>job[i+1])
    {
        a=job[i];
        job[i]=job[i+1];
        job[i+1]=a;
    }
    cout<<"Job"<<"\t"<<"Burstable
"<<"\t"<<"\t"<<"Time"<<"\t"<<"\t"<<"Wait"<<endl;
    for(i=0;i<4;++i)
    {
        t=t+job[i];
        TT=TT+t;
        TW=TW+w;
    }

    cout<<i<<"\t"<<job[i]<<"\t"<<"\t"<<"\t"<<t<<"\t"<<"\t"<<w<<e
ndl;
    w=t;
}
cout<<"\t"<<"\t"<<"\t"<<"Toteltime ~ "<<TT/4<<"\t";
cout<<"Totelwait ~ "<<TW/4<<endl;
    };break;
}
}

```

برنامج الـ short job first

//Short Job First

```
#include<iostream.h>

void main()
{
    int job[4]={15,5,35,25},i,t=0,w=0,a;
    float TT=0,tw=0;

    w=0;

    for(i=0;i<4;++i)
        if(job[i]>job[i+1])
    {
        a=job[i];
        job[i]=job[i+1];
        job[i+1]=a;
    }

    cout<<"Job"<<"\t"<<"Burst
time"<<"\t"<<"\t"<<"Time"<<"\t"<<"\t"<<"Wait"<<endl;

    for(i=0;i<4;++i)
    {
        t=t+job[i];
        tw=tw+w;
        TT=TT+t;
    }
}
```

```
cout<<i+1<<"\t"<<job[i]<<"\t"<<"\t"<<t<<"\t"<<"\t"<<
w<<endl;

w=t;

}

cout<<"\t"<<"\t"<<"\t"<<"Total Time ~
"<<TT/4<<"\t"<<"Total Wait ~ "<<tw/4;

}
```

## Short Job Service برنامج ال

```
#include<iostream.h>

void main()
{
    int job[4]={15,5,35,25},i,t=0,w=0,x;
    float TT=0,tw=0;
    w=0;
    for(i=0;i<4;++i)
        if(job[i]>job[i+1])
    {
        x=job[i];
        job[i]=job[i+1];
        job[i+1]=x;
    }
    cout<< "Jobs" << "\t" << "Burst time" << "\t"
    << "Time" << "\t" << "Wait" << endl;
    for(i=0;i<4;++i)
    {
        t=t+job[i];
        tw=tw+w;
        TT=TT+t;
    }
}
```

```
cout<<"j"<<i+1<<"\t"<<job[i]<<"\t"<<"\t"<<t  
<<"\t"<< w<<endl;  
  
w=t;  
  
}  
  
cout<<"\t"<<"\t"<<"Total Time ~ "<<TT/i<<"\t"<<"tw ~  
"<<tw/i;  
}
```

ثمن هذا الكتاب

الدعاء لي ولوالدين بحسن العاقبة