

PageReplacement.java

```
import java.io.*;
```

```
class PageReplacement
```

```
{
```

```
    public static void main(String args[])throws IOException
    {
```

```
        BufferedReader obj=new BufferedReader(new
InputStreamReader(System.in));
```

```
        int f,page=0,ch,pgf=0,n,chn=0;
```

```
        boolean flag;
```

```
        int pages[];          //pgf-page fault
```

```
        do{
```

```
            System.out.println("Menu");
```

```
            System.out.println("1.FIFO");
```

```
            System.out.println("2.LRU");
```

```
            System.out.println("3.EXIT");
```

```
            System.out.println("ENTER YOUR CHOICE: ");
```

```
            ch=Integer.parseInt(obj.readLine());
```

```
            switch(ch)
```

```
            {
```

```
                case 1:
```

```
                    int pt=0;
```

```
                    System.out.println("enter no. of frames: ");
```

```
                    f=Integer.parseInt(obj.readLine());
```

```
                    int frame[]=new int[f];
```

```
                    for(int i=0;i<f;i++)
```

```
                    {
```

```
                        frame[i]=-1;
```

```
                    }
```

```
                    System.out.println("enter the no of pages ");
```

```
                    n=Integer.parseInt(obj.readLine());
```

```
                    pages=new int[n];
```

```
                    System.out.println("enter the page no ");
```

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

```
                        pages[j]=Integer.parseInt(obj.readLine());
```

```
                    do{
```

```
                        int pg=0;
```

```
                        for(pg=0;pg<n;pg++)
```

```
                        {
```

```
                            page=pages[pg];
```

```
                            flag=true;
```

```
                            for(int j=0;j<f;j++)
```

```
                            {
```

```
                                if(page==frame[j])
```

```
                                {
```

```
                                    flag=false;
```

```
                                    break;
```

```
                                }
```

```
                            }
```

```
                            if(flag)
```

```

        {
            frame[pt]=page;
            pt++;
            if(pt==f)
                pt=0;
            System.out.print("frame :");
            for(int j=0;j<f;j++)
                System.out.print(frame[j]+" ");

            System.out.println();
            pgf++;
        }
        else
        {
            System.out.print("frame :");
            for(int j=0;j<f;j++)
                System.out.print(frame[j]+" ");

            System.out.println();
        }

        chn++;
    }
}while(chn!=n);
System.out.println("Page fault:"+pgf);
break;

```

```

case 2:
    int k=0;
    System.out.println("enter no. of frames: ");
    f=Integer.parseInt(obj.readLine());
    int frame1[]=new int[f];
    int a[]=new int[f];
    int b[]=new int[f];
    for(int i=0;i<f;i++)
    {
        frame1[i]=-1;
        a[i]=-1;
        b[i]=-1;
    }
    System.out.println("enter the no of pages ");
    n=Integer.parseInt(obj.readLine());
    pages=new int[n];
    System.out.println("enter the page no ");
    for(int j=0;j<n;j++)
        pages[j]=Integer.parseInt(obj.readLine());
    do{
        int pg=0;
        for(pg=0;pg<n;pg++)
        {
            page=pages[pg];
            flag=true;
            for(int j=0;j<f;j++)
            {

```

```

        if(page==frame1[j])
        {flag=false; break;}
    }

    for(int j=0;j<f && flag;j++)
    {
        if(frame1[j]==a[f-1])
        {k=j;
         break;}
    }

    if(flag)
    {
        frame1[k]=page;
        System.out.println("frame : " );
        for(int j=0;j<f;j++)
            System.out.print(frame1[j]+" ");
        pgf++;
        System.out.println();
    }
    else
    {
        System.out.println("frame : " );
        for(int j=0;j<f;j++)
            System.out.print(frame1[j]+" ");
        System.out.println();
    }

    int p=1;
    b[0]=page;
    for(int j=0;j<a.length;j++)
    {
        if(page!=a[j] && p<f)
        {
            b[p]=a[j];
            p++;
        }
    }
    for(int j=0;j<f;j++)
    {
        a[j]=b[j];
    }
    chn++;

    }
    }while(chn!=n);
    System.out.println("Page fault:"+pgf);
    break;

    case 3:
        break;
    }
    while(ch!=3);
}
}

```