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#include<stdio.h>
void fifo();
void lru();
void main()
{
	int choice;
	printf("SELECT YOUR CHOICE\n");
	printf("\t1.FIFO\n\t2.LRU\n\t3.EXIT\n");
	do
	{
		printf("Enter your choice");
		scanf("%d",&choice);
		switch(choice)
		{
			case 1:fifo();
				break;
			case 2:lru();
				break;
			case 3:printf("Exit from menu");
				break;
			default:printf("Invalid");
		}
	}while(choice!=3);
}
void fifo()
{
	int i, j, k, f, pf=0, count=0, rs[50], m[50], n;
	printf("\n Enter the length of reference string -- ");
	scanf("%d",&n);
	printf("\n Enter the reference string -- ");
	for(i=0;i<n;i++)
		scanf("%d",&rs[i]);
	printf("\n Enter no. of frames -- ");
	scanf("%d",&f);
	for(i=0;i<f;i++)
		m[i]=-1;
	printf("\n The Page Replacement Process is -- \n");
	for(i=0;i<n;i++)
	{
		for(k=0;k<f;k++)
		{
			if(m[k]==rs[i])
			break;
		}
		if(k==f)
		{
			m[count++]=rs[i];
			pf++;
		}
		for(j=0;j<f;j++)
			printf("\t%d",m[j]);
		if(k==f)
			printf("\tPF No. %d",pf);
		printf("\n");
		if(count==f)
			count=0;
	}
```

```
	printf("\n The number of Page Faults using FIFO are %d",pf);
}
void lru()
{
		int i,j,k,min,rs[25],m[10],count[10],flag[25],n,f,pf=0,next=0;
		printf("Enter the length of the reference string --");
		scanf("%d",&n);
		printf("Enter the reference string -- ");
		for(i=0;i<n;i++)
		{
			scanf("%d",&rs[i]);
			flag[i]=0;
		}
		printf("Enter the number of frames -- ");
		scanf("%d",&f);
		for(i=0;i<f;i++)
		{
			count[i]=0;
			m[i]=-1;
		}
	printf("\nThe Page Replacement process is -- \n");
	for(i=0;i<n;i++)
	{
			for(j=0;j<f;j++)
			{
				if(m[j]==rs[i])
				{
						flag[i]=1;
						count[j]=next;
						next++;
				}
			}
			if(flag[i]==0)
			{
				if(i<f)
				{
						m[i]=rs[i];
						count[i]=next;
						next++;
				}
				else
				{
						min=0;
						for(j=0;j<f;j++)
							if(count[min] > count[j])
								min=j;
						m[min]=rs[i];
						count[min]=next;
						next++;
				}
				pf++;
			}
			for(j=0;j<f;j++)
				printf("%d\t",m[j]);
			if(flag[i]==0)
				printf("PF no. -- %d",pf);
			printf("\n");
```

```
        }
        printf("\nThe number of page faults using LRU are %d",pf);
}
```