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//Banker's Algorithm Slot1



#include<stdio.h>

int A[10][10],M[10][10],N[10][10],Av[10],Safe[10],Finish[10],nor,nop;

void AcceptData(int X[][10])
{
	int i,j;

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

	{

		printf("P%d\n",i);

		for(j=0;j<nor;j++)

		 {

			printf("%c: ",65+j);

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

		}

	}

}

void AcceptAvailability()
{
	int i;

	for(i=0;i<nor;i++)

	{

		printf("%c: ",65+i);

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

	}

}

void DisplayData()
{
	int i,j;
```

```
	printf("\n\tAllocation\t\tMax\t\tNeed\n");
	printf("\t");
	for(i=0;i<3;i++)
	{
		for(j=0;j<nor;j++)
			printf("%4c",65+j);
		printf("\t");
	}
	for(i=0;i<nop;i++)
	{
		printf("\nP%d\t",i);
		for(j=0;j<nor;j++)
			 printf("%4d",A[i][j]);
		printf("\t");
		for(j=0;j<nor;j++)
			printf("%4d",M[i][j]);
		printf("\t");
		for(j=0;j<nor;j++)
		printf("%4d",N[i][j]);
	}
	printf("\nAvailable\n");
	for(j=0;j<nor;j++)
		printf("%4d",Av[j]);
}

void CalcNeed()
{
	int i,j;
	for(i=0;i<nop;i++)
		for(j=0;j<nor;j++)
			N[i][j] = M[i][j] - A[i][j];
}


void main()
{
	printf("\nEnter No.of Processes & No.of Resources: ");
	scanf("%d %d",&nop,&nor);
	printf("Enter Allocation\n");
	AcceptData(A);
	printf("Enter Max Requirement\n");
	AcceptData(M);
	printf("Enter Availability\n");
	AcceptAvailability();
	CalcNeed();
	DisplayData();

}
```