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First fit

```
import java.util.Scanner;

public class _First_fit
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter no. of jobs: ");
        int n=sc.nextInt();
        int req[]=new int[n];
        int job[]=new int[n];
        System.out.println("Enter no. of blocks: ");
        int m=sc.nextInt();
        int b[]=new int[m];
        int avl[]=new int[m];
        int f[]=new int[m];
        for(int i=0;i<n;i++)
        {
            System.out.println("Enter memory requirement for job "+(i+1)+" : ");
            req[i]=sc.nextInt();
            job[i]=(i+1);
        }

        System.out.println();
        for(int i=0;i<m;i++)
        {
            System.out.println("Enter memory available for block "+(i+1)+" : ");
```

```

    avl[i]=sc.nextInt();
    b[i]=(i+1);
}
System.out.println("MEMORY REQUIREMENT:");
System.out.println("JOB\t M_REQUIREMENT");
for(int i=0;i<n;i++)
{
    System.out.print(job[i]+"\\t"+req[i]);
    System.out.println();
}
System.out.println();
System.out.println("MEMORY AVAILABLE:");
System.out.println("BLOCK\t M_AVAILABLE");
for(int i=0;i<m;i++)
{
    System.out.print(b[i]+"\\t"+avl[i]);
    System.out.println();
}
for (int i=0;i<n;i++)
{
    f[i]= 0;
}
System.out.println();
System.out.println("JOB\t BLOCK");
for(int i=0;i<n;i++)
{
    for(int j=0;j<m;j++)
    {
        if(req[i]<=avl[j] && f[j]==0)
        {

```

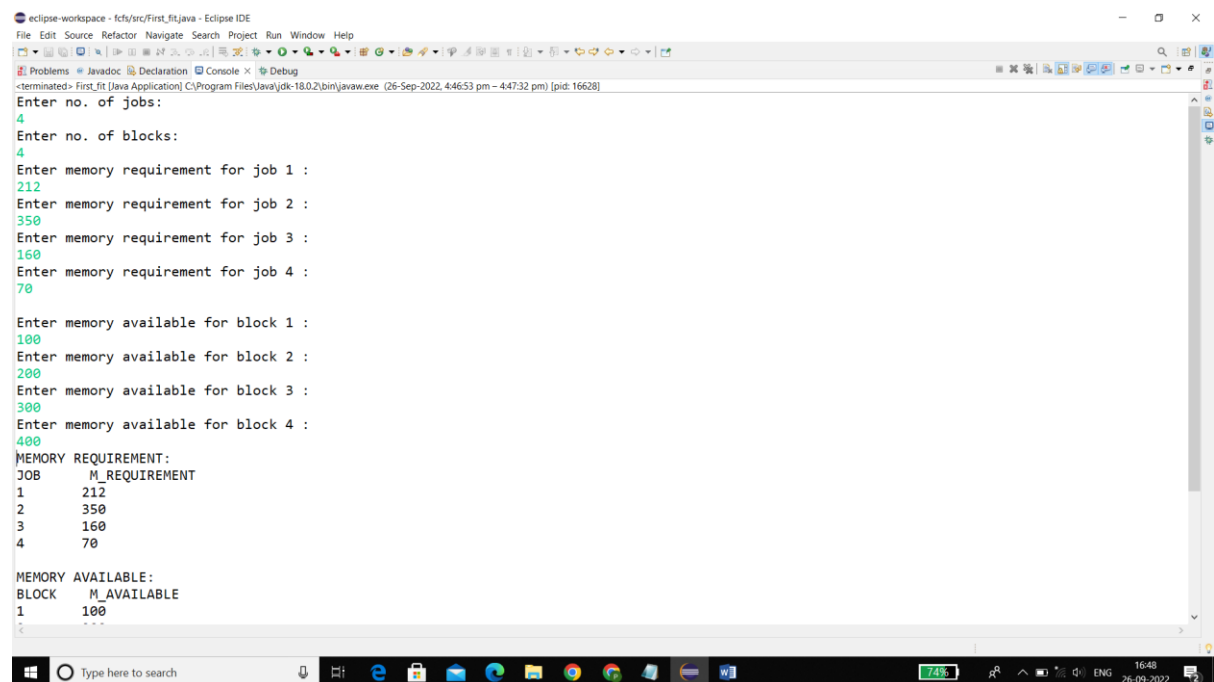
```

        f[j]=1;
System.out.println(job[i]+"\\t-->" +b[j]);

        break;
    }
}
}
sc.close();
}
}

```

OUTPUT



The screenshot shows the Eclipse IDE interface with the console window open. The program has executed and produced the following output:

```

eclipse-workspace - fctf/src/First_fit.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console X Debug
<terminated> First_fit [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (26-Sep-2022, 4:46:53 pm - 4:47:32 pm) [pid: 16628]
Enter no. of jobs:
4
Enter no. of blocks:
4
Enter memory requirement for job 1 :
212
Enter memory requirement for job 2 :
350
Enter memory requirement for job 3 :
160
Enter memory requirement for job 4 :
70

Enter memory available for block 1 :
100
Enter memory available for block 2 :
200
Enter memory available for block 3 :
300
Enter memory available for block 4 :
400
MEMORY REQUIREMENT:
JOB      M_REQUIREMENT
1        212
2        350
3        160
4         70

MEMORY AVAILABLE:
BLOCK    M_AVAILABLE
1        100

```

The console output shows the user input for the number of jobs (4) and blocks (4), followed by memory requirements for each job and available memory for each block. The program then displays a table of memory requirements and a table of memory available for each block.

```
eclipse-workspace - fctf/src/First_fit.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console x Debug
<terminated> First_fit [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (26-Sep-2022, 4:46:53 pm - 4:47:32 pm) [pid: 16628]

Enter memory requirement for job 4 :
70

Enter memory available for block 1 :
100
Enter memory available for block 2 :
200
Enter memory available for block 3 :
300
Enter memory available for block 4 :
400

MEMORY REQUIREMENT:
JOB      M_REQUIREMENT
1        212
2        350
3        160
4         70

MEMORY AVAILABLE:
BLOCK    M_AVAILABLE
1         100
2         200
3         300
4         400

JOB      BLOCK
1        -->3
2        -->4
3        -->2
4        -->1
```