

J cheran kumar

Java 1

Sap id : 51834769

Answers.....

1)

import java.io.;*

public class Main

{

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

{

BufferedReader br=new BufferedReader (new InputStreamReader(System.in));

System.out.println(" Author:J . Cheran kumar\nSAP ID:51834769");

System.out.print("Enter a number : ");

int n = Integer.parseInt(br.readLine());

int copy = n, a = 0, sum = 0;

String b = Integer.toString(n);

int len = b.length();

while(copy>0)

{

```
    a = copy % 10;

    sum = sum + (int)Math.pow(a,len);

    len--;

    copy = copy / 10;
}

if(sum == n)

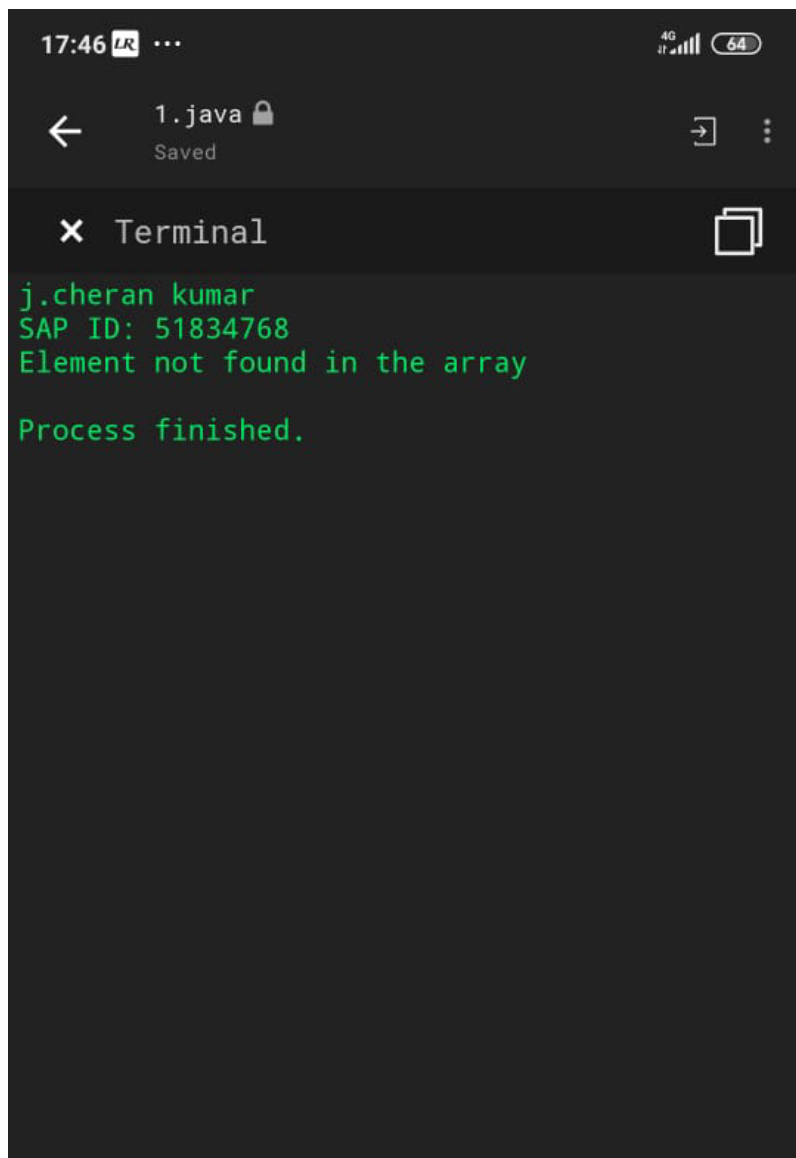
    System.out.println(n+" is a Disarium Number.");

else

    System.out.println(n+" is not a Disarium Number.");

}

}
```



The screenshot shows a mobile application interface with a dark theme. At the top, the status bar displays the time 17:46, a battery icon at 64%, and a 4G signal indicator. Below the status bar is a navigation bar with a back arrow, the text '1.java' with a lock icon, and a 'Saved' status. The main area is titled 'Terminal' with a close button (X) and a window icon. The terminal output is as follows:

```
j.cheran kumar
SAP ID: 51834768
Element not found in the array

Process finished.
```

2)

```
import java.util.Arrays;
```

```
public class Main
```

```
{
```

```
    private static void sortBinaryArray(int[] inputArray)
```

```
    {
```

```
        int zeroCount = 0;
```

```
        System.out.println("Author:J . Cheran kumar\nSAP ID:51834769");
```

```
        System.out.println("Input Array Before Sorting : "+Arrays.toString(inputArray));
```

```
        for (int n = 0; n < inputArray.length; n++)
```

```
        {
```

```
            if (inputArray[n] == 0)
```

```
            {
```

```
                zeroCount++;
```

```
            }
```

```
        }
```

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

```

    {

        inputArray[n] = 0;

    }

    for (int n = zeroCount; n < inputArray.length; n++)

    {

        inputArray[n] = 1;

    }

    System.out.println("Input Array After Sorting: "+Arrays.toString(inputArray));

}

public static void main(String[] args)

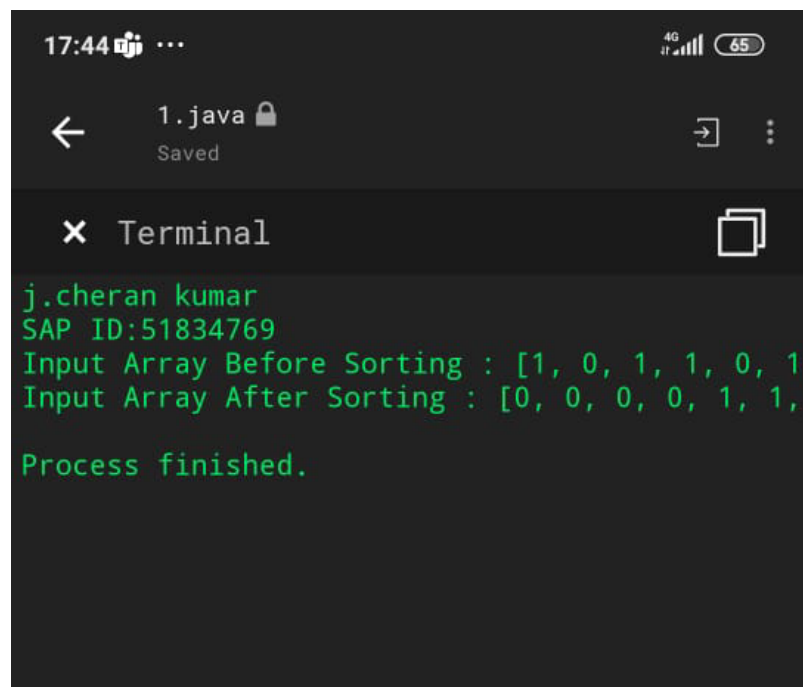
{

    sortBinaryArray(new int[] {1, 0, 1, 1, 0, 1, 0, 0});

}

}

```



The screenshot shows a mobile terminal window with a dark background. At the top, the status bar displays the time 17:44, signal strength, and battery level at 65%. The terminal title bar shows a back arrow, the filename '1.java' with a lock icon, and a 'Saved' status. Below the title bar, there is a tab labeled 'Terminal' with a close button (X) and a window icon. The terminal output is in green text and shows the following sequence: the user 'j.cheran kumar', their SAP ID '51834769', the input array before sorting '[1, 0, 1, 1, 0, 1, 0, 1]', the input array after sorting '[0, 0, 0, 0, 1, 1, 1, 0]', and finally 'Process finished.'

```

17:44 4G 65
← 1.java Saved → ⋮
× Terminal
j.cheran kumar
SAP ID:51834769
Input Array Before Sorting : [1, 0, 1, 1, 0, 1, 0, 1]
Input Array After Sorting : [0, 0, 0, 0, 1, 1, 1, 0]
Process finished.

```

3)

```
public class Main
```

```
{
```

```
static int replaceDigit(int a, int numbertobereplaced,
```

```
int replacingnumber)
```

```
{
```

```
int result = 0, multiply = 1;
```

```
while (a % 10 > 0)
```

```
{
```

```
int remainder = a % 10;
```

```
if (remainder == numbertobereplaced)
```

```
result = result + replacingnumber * multiply;
```

```
else
```

```
result = result + remainder * multiply;
```

```
multiply *= 10;
```

```
a = a / 10;
```

```
}
```

```
return result;
```

```
}
```

```
public static void main(String[] args)
```

```
{
```

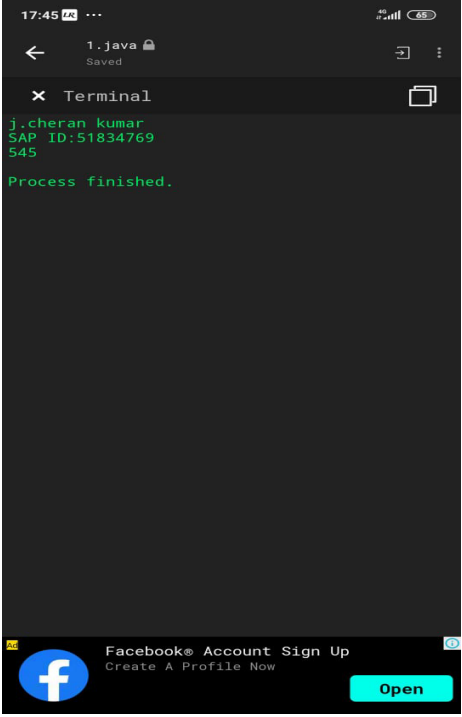
```
    int a = 645, numbertobereplaced = 6, replacingnumber = 5;
```

```
    System.out.println("Author:J. Cheran kumar\nSAP ID:51834769");
```

```
    System.out.println(replaceDigit(a, numbertobereplaced, replacingnumber));
```

```
}
```

```
}
```



The screenshot shows a mobile application interface with a dark theme. At the top, the status bar displays the time 17:45, signal strength, and battery level at 65%. Below the status bar is a navigation bar with a back arrow, the text '1.java' with a lock icon, and a 'Saved' label. A 'Terminal' window is open, showing the output of a Java program. The output is displayed in green text on a dark background and reads: 'j.cheran kumar', 'SAP ID:51834769', '545', and 'Process finished.'. At the bottom of the screen, there is a Facebook advertisement banner with the text 'Facebook® Account Sign Up' and 'Create A Profile Now', accompanied by the Facebook logo and an 'Open' button.

5)

```
public class Main
```

```
{
```

```
    public static int binarySearch(int[] M, int left, int right, int n)
```

```
    {
```

```
        if (left > right) {
```

```
            return -1;
```

```
        }
```

```
        int mid = (left + right) / 2;
```

```
        if (n == M[mid]) {
```

```
            return mid;
```

```
        }
```

```
        else if (n < M[mid]) {
```

```
            return binarySearch(M, left, mid - 1, n);
```

```
        }
```

```
        else {
```

```
            return binarySearch(M, mid + 1, right, n);
```

```
        }
```

```
    }
```

```
    public static void main(String[] args)
```

```
    {
```

```
int[] M = { 2, 5, 6, 8, 9, 10 };

int key = 3;


int left = 0;

int right = M.length - 1;


int index = binarySearch(M, left, right, key);


System.out.println("Author:J. Cheran kumar\nSAP ID: 51834769");

if (index != -1) {

    System.out.println("Element found at index " + index);

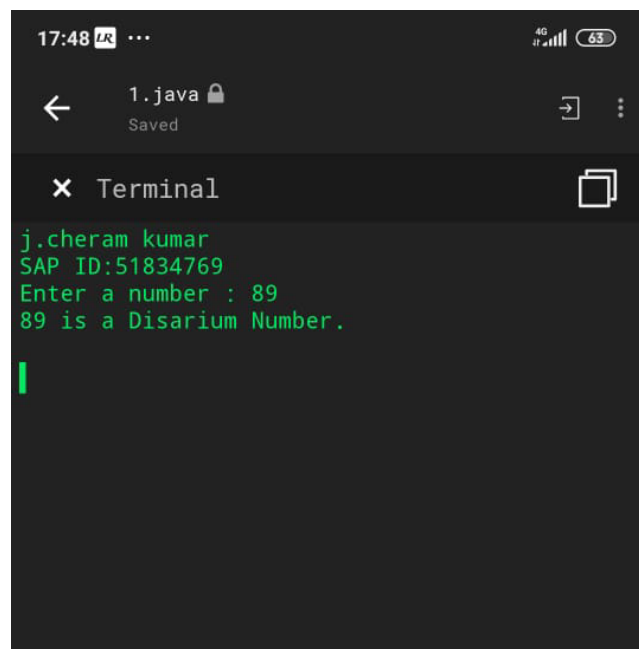
} else {

    System.out.println("Element not found in the array");

}

}

}
```



The screenshot shows a mobile application interface with a dark theme. At the top, the status bar displays the time 17:48, a lock icon, and a battery level of 63%. Below the status bar, there is a navigation bar with a back arrow, the text "1.java" with a lock icon, and a "Saved" label. To the right of the navigation bar are icons for a folder and a list. Below the navigation bar, there is a section titled "Terminal" with a close button (X) and a window icon. The terminal displays the following text in green: "j.cheram kumar", "SAP ID:51834769", "Enter a number : 89", and "89 is a Disarium Number.". A green cursor is visible at the bottom of the terminal.

```
17:48 1.java Saved
Terminal
j.cheram kumar
SAP ID:51834769
Enter a number : 89
89 is a Disarium Number.
```


Marks : Attended for Bi