

MC122(OOP) - PROJECT

Blood Connect

Group Members

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❖ Project Overview:

We have made project “Blood Connect”, where blood donor can register him/her self for blood donation. Where s/he has to his/her personal information (i.e. Name, Age, Blood group, Mobile number, Pin code, City, etc). We store all the User’s information in csv file.

When a person needs blood then s/he has to input required blood group and pin code of that area. So, our program finds same blood-group as well as all blood groups which can receive, in that area and list out all the person who lived in that area. So needy person can directly contact those persons.

❖ Functionality :

```
File file_name = new File( pathname: "Project.csv");
boolean isempty = file_name.length()==0;
try (FileWriter n = new FileWriter(file_name, append: true)) // make csv file in given path
{
    if(isempty)
    {
        n.append("Name,Age,BloodGroup,MobileNumber,Pincode,City").append("\n");
    }
    n.append(details.getName()).append(",").append(String.valueOf(details.getAge())).append(",")
        .append(details.getBloodGroup()).append(",").append(details.getMobileNumber()).append(",")
        .append(details.getPincode()).append(",").append(details.getCity()).append("\n");
    // csv file done and store all user data
}
catch (Exception e) {
    e.printStackTrace();
}
```

1. For this program, mainly we have used file handling.

- First, we have created csv file using ‘File’ class’s object. Which can store all user data.
- FileWriter class use for writing data into csv file.

- 'append' is method of 'java.io.OutputStreamWriter.append' that appends the specified character sequence to this writer.

```
try (BufferedReader read = new BufferedReader(new FileReader( fileName: "Project.csv"))) {
    String line;
    while ((line = read.readLine()) != null) {
        String[] s = line.split( regex: ",");

        if ((s[2].equals("A+")) && s[4].equals(src_pc)) {
            count = 1;
            for (String sc : s) {
                System.out.print(sc + "\t");
            }
            System.out.println();
        }
    }
} catch (FileNotFoundException e) {
    e.printStackTrace();
} catch (IOException e) {
    System.out.println(e);
}
```

2. For searching required blood group.

- In this searching operation , we have used BufferedReader class that will read from csv file.
- 'readline' is method of 'java.io.BufferedReader' class that read line by line of givem file.
- 'split' is method of 'java.lang.String' class that split string of line by line delimiter. Here , in csv file delimiter is "," and store this substring in string array. Now data was stored in array so we can easily use this data. We have 6 data field so our string array contains blood group at 3rd position (index-2) and pin code is stored at 6th position (index-5).
- If our required blood group and pin code satisfied condition and if it exists in csv file the that line will print on command prompt.

Input-Output

```
*****
###                                     ###
###                                     ###
###                                     ###
###                                     ###
###                                     ###
###                                     ###
###                                     ###
*****

Enter 1 to Donate Blood
Enter 2 to get Blood
Enter 3 to exit
1

~~~~~ Donate Blood ~~~~~

-> Enter Your Name :- Rajesh
-> Enter your age :- 26
-> Have you donated blood in last 3 months ?? If yes then press Y else N :- N
-> Enter Your BloodGroup (A+ , A- , B+ , B- , AB+ , AB- , O+ , O-) :B-
-> Enter your mobile number :- 9685743215
-> Enter your pincode:- 395004
-> Enter your city :- Surat

~~~~~ Thank You..! for donating blood Donate Blood and Save life ~~~~~

-> If you want to get blood then press 2
-> Press 3 to exit
```

```
Enter 1 to Donate Blood
Enter 2 to get Blood
Enter 3 to exit
2

~~~~~ Get Blood ~~~~~

-> Enter Your BloodGroup (A+ , A- , B+ , B- , AB+ , AB- , O+ , O-) :B+
-> Enter your pincode :- 39500
--> Please enter valid pincode
-> Enter your pincode :- 395004

-----
Your blood group is B+ , So you can receive blood from person whose blood group is (B+), (B-), (O+), (O-).
So we provide you the details of all the persons who live in your area
-----

Prince 19 B+ 9731648525 395004 Surat
Hardik 23 B+ 9653214875 395004 Surat
Jayesh 26 B- 9764851235 395004 Surat
Anirodh 39 O- 9632117111 395004 Surat

~~~~~ Thank You ~~~~~
```

Use case diagram UML

