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1  /*
2  * Program for maintaining a student records database using File Handling
3  */
4
5  import java.io.*;
6  class studentRecords
7  {
8      static BufferedReader br = new BufferedReader( new InputStreamReader( S
9      public void addRecord$) throws IOException
10     {
11         System.out.print ("\f" );
12         // Create or Modify a file for Database
13         PrintWriter pw = new PrintWriter ( new BufferedWriter ( new FileWrite
14         r("studentRecords.dbf" , true )));
15         String name, Class, schNo, fname, mname, address, dob, Subjects="
16         ";
17         int age;
18         long telephoneNo;
19         String s;
20         boolean addMore= false ;
21         // Read Data
22         do
23         {
24             System.out.print ("\nEnter name: " );
25             name= br.readLine();
26             System.out.print ("Father's Name: " );
27             fname = br.readLine();
28             System.out.print ("Mother's Name: " );
29             mname= br.readLine();
30             System.out.print ("Address: " );
31             address = br.readLine();
32             System.out.print ("Class: " );
33             Class = br.readLine();
34             System.out.print ("School Number: " );
35             schNo= br.readLine();
36             System.out.print ("Enter number of subjects: " );
37             int n=Integer.parseInt (br.readLine());
38             String Sub[];
39             Sub = new String [ n];
40             for (int i =0; i <n; i++)
41             {
42                 System.out.print ("Enter Subject " +(i+1)+" : " );
43                 Sub[i] =br.readLine();
44             }
45             for (int i =0; i <n; i++)
46             {
47                 Subjects +=Sub[i] +" " ;
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46         }
47         System.out.print ("Date of Birth (dd/mm/yy): " );
48         dob = br.readLine();
49         System.out.print ("Age: " );
50         age = Integer.parseInt (br.readLine());
51         System.out.print ("Telephone No.: " );
52         telephoneNo = Long.parseLong(br.readLine());
53         // Print to File
54         pw.println (name);
55         pw.println (fname);
56         pw.println (mname);
57         pw.println (address);
58         pw.println (Class);
59         pw.println (schNo);
60         pw.println (Subjects);
61         pw.println (dob);
62         pw.println (age);
63         pw.println (telephoneNo);
64         Subjects="";
65         System.out.print ("\nRecords added successfully !\n\nDo you want to add more records ? (y/n) : ");
66         s = br.readLine();
67         if (s.equalsIgnoreCase("y" ))
68         {
69             addMore= true ;
70             System.out.println ();
71         }
72         else
73             addMore= false ;
74     }
75     while (addMore);
76     pw.close();
77     showMenu();
78 }
79
80 public void readRecords() throws IOException
81 {
82     System.out.print ("\n" );
83     try
84     {
85         // Open the file
86         BufferedReader file = new BufferedReader( new FileReader ("studentRecords.dbf"));
87         String name;
88         int i=1;
89         // Read records from the file
90         while ((name= file.readLine()) != null )
91         {
92             System.out.println ("S.No.: " +(i++));

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93         System.out.println ("-----" );
94         System.out.println ("\nName : " +name);
95         System.out.println ("Father's Name : " +file .readLine());
96         System.out.println ("Mother's Name : " +file .readLine());
97         System.out.println ("Address : " +file .readLine());
98         System.out.println ("Class : " +file .readLine());
99         System.out.println ("School Number : " +file .readLine());
100        System.out.println ("Subjects : " +file .readLine());
101        System.out.println ("Date of Birth : " +file .readLine());
102        System.out.println ("Age : " +Integer .parseInt (file .readLin
e()));
103        System.out.println ("Tel. No. : " +Long.parseLong(file .read
Line()));
104        System.out.println ();
105        br.readLine();
106    }
107    file .close();
108    showMer();
109    }
110    catch (FileNotFoundException e)
111    {
112        System.out.println ("\nERROR : File not Found !!!" );
113        br.readLine();
114    }
115    }
116
117    public void clear () throws IOException
118    {
119        System.out.print ("\f" );
120        // Create a blank file
121        PrintWriter pw = new PrintWriter ( new BufferedWriter ( new FileWrite
r("studentRecords.dbf" )));
122        pw.close();
123        System.out.println ("\nAll Records cleared successfully !" );
124        br.readLine();
125        showMer();
126    }
127
128    public void showMer() throws IOException
129    {
130        System.out.print ("\f" );
131        System.out.println ("Welcome to the Panchayat Ghar Student Managem
ent Software: Teacher Module");
132        System.out.println ("Please select your course of action: " );
133        System.out.print ("\t1 : Add Records\n\t2 : Display Records\n\t3 :
Search\n\t4 : Modify\n\t5 : Delete Specific Data\n\t6 : Clear All Record
s\n\t7 : Exit \n\nYour Choice : ");
134        int choice = Integer .parseInt (br.readLine());
135        switch (choice)

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178 public void main() throws IOException
179 {
180     studentRecords call = new studentRecords();
181     call . showMenu();
182 }
183
184 void Search() throws IOException
185 {
186     System.out.print ( "\f" );
187     BufferedReader br= new BufferedReader( new InputStreamReader( System
188 min ));
189     BufferedReader ifile = new BufferedReader( new FileReader ( "student
190 Records dbf" ));
191     String name S;
192     String schNo fname mname address, dob, Class, Subjects;
193     int age; long telephoneNo;
194     System.out.println ( "Enter name to be searched" );
195     S=br.readLine();
196     boolean flag =true;
197     while ( true )
198     {
199         name=ifile .readLine();
200         if ( name==null )
201             break;
202         fname=ifile .readLine();
203         mname=ifile .readLine();
204         address=ifile .readLine();
205         Class=ifile .readLine();
206         schNo=ifile .readLine();
207         Subjects=ifile .readLine();
208         dob=ifile .readLine();
209         age=Integer .parseInt ( ifile .readLine());
210         telephoneNo=Long.parseLong ( ifile .readLine());
211         if ( S.equals( name)
212             {
213                 System.out.println ( "Name : " +name+"\nFathers Name : " +fna
214 me+"\nMothers Name : " +mname+"\nAddress : " +address+"\nClass : " +Class+"\
215 tSchool Number: "+schNo+"\nSubjects : "+Subjects+"\nDate of Birth : "+dob
216 b+"\nAge : " +age+"\nTelephone Number : " +telephoneNo);
217                 flag =true;
218                 br.readLine();
219             }
220         }
221     }
222     if ( ! flag )
223     {
224         System.out.println ( "Name not found" );
225         br.readLine();
226     }
227 }

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222     ifile . close ();
223     showMenu ();
224 }
225
226 void modify () throws IOException
227 {
228     System.out.print ("\n" );
229     BufferedReader br = new BufferedReader ( new InputStreamReader ( System
230 in ));
231     BufferedReader ifile = new BufferedReader ( new FileReader ( "student
232 Records dbf" ));
233     FileWriter file = new FileWriter ( "temp" );
234     PrintWriter ofile = new PrintWriter ( file );
235     String name S;
236     String schNo fname mname address, dob, Class, Subjects = "" ;
237     int age; long telephoneNo;
238     System.out.print ( "Enter name to be modified: " );
239     S = br.readLine ();
240     boolean flag = false ;
241     while ( true )
242     {
243         name = ifile . readLine ();
244         if ( name == null )
245             break;
246         fname = ifile . readLine ();
247         mname = ifile . readLine ();
248         address = ifile . readLine ();
249         Class = ifile . readLine ();
250         schNo = ifile . readLine ();
251         Subjects = ifile . readLine ();
252         dob = ifile . readLine ();
253         age = Integer . parseInt ( ifile . readLine ());
254         telephoneNo = Long.parseLong ( ifile . readLine ());
255         if ( S.equals ( name ) )
256         {
257             System.out.print ( "\nEnter name: " );
258             name = br.readLine ();
259             System.out.print ( "Father's Name: " );
260             fname = br.readLine ();
261             System.out.print ( "Mother's Name: " );
262             mname = br.readLine ();
263             System.out.print ( "Address: " );
264             address = br.readLine ();
265             System.out.print ( "Class: " );
266             Class = br.readLine ();
267             System.out.print ( "School Number: " );
268             schNo = br.readLine ();
269             System.out.print ( "Enter number of subjects: " );
270             int n = Integer . parseInt ( br.readLine ());

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269         String Sub[];
270         Sub = new String [ n ];
271         for (int i =0; i <n; i++)
272         {
273             System.out.print ("Enter Subject " +(i +1) +": " );
274             Sub[i] =br.readLine();
275         }
276         Subjects="" ;
277         for (int i =0; i <n; i++)
278         {
279             Subjects +=Sub[i] +" " ;
280         }
281         System.out.print ("Date of Birth (dd/mm/yy): " );
282         dob = br.readLine();
283         System.out.print ("Age: " );
284         age = Integer .parseInt ( br.readLine());
285         System.out.print ("Telephone No.: " );
286         telephoneNo = Long.parseLong( br.readLine());
287         flag =true ;
288     }
289     ofile .println ( name);
290     ofile .println ( fname);
291     ofile .println ( mname);
292     ofile .println ( address);
293     ofile .println ( Class);
294     ofile .println ( schNo);
295     ofile .println ( Subjects);
296     ofile .println ( dob);
297     ofile .println ( age);
298     ofile .println ( telephoneNo);
299 }
300
301 if (! flag )
302     System.out.println ( "Name not found" );
303 else
304     System.out.println ( "Data modified" );
305
306 ifile .close();
307 ofile .close();
308 /* Close the 2 files, The 2 files contain original and modified d
ata respectively*/
309 br.readLine();
310 replace ("temp", "studentRecords.dbf" ); /*rename the temp file to o
riginal file*/
311 showMenu();
312 }
313
314 void replace (String Temp String Ori) throws IOException
315 {

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316     BufferedReader ifile = new BufferedReader( new FileReader( Temp ));
317     FileWriter file = new FileWriter ( Ori );
318     PrintWriter ofile = new PrintWriter ( file );
319     String S;
320     while ( true )
321     {
322         S=ifile . readLine();
323         if ( S==null )
324             break;
325         ofile . println ( S );
326     }
327     ifile . close();
328     ofile . close();
329 }
330
331 void Delete() throws IOException
332 {
333     System.out. print ( "\f" );
334     BufferedReader br= new BufferedReader( new InputStreamReader( System
335 min ));
336     BufferedReader ifile = new BufferedReader( new FileReader ( "student
337 Records dbf" ));
338     FileWriter file = new FileWriter ( "temp" );
339     PrintWriter ofile = new PrintWriter ( file );
340     String name S;
341     String schNo fname mname address, dob, Class, Subjects ;
342     int age; long telephoneNo;
343     System.out. print ( "Enter name to be deleted : " );
344     S=br. readLine();
345     boolean flag =false ;
346     while ( true )
347     {
348         name=ifile . readLine();
349         if ( name==null )
350             break;
351         fname=ifile . readLine();
352         mname=ifile . readLine();
353         address=ifile . readLine();
354         Class=ifile . readLine();
355         schNo=ifile . readLine();
356         Subjects=ifile . readLine();
357         dob=ifile . readLine();
358         age=Integer . parseInt ( ifile . readLine());
359         telephoneNo=Long.parseLong( ifile . readLine());
360         if ( ! S. equals( name) )
361         {
362             ofile . println ( name);
363             ofile . println ( fname);
364             ofile . println ( mname);

```



```
363         ofile .println ( address);
364         ofile .println ( Class);
365         ofile .println ( schNo;
366         ofile .println ( Subjects);
367         ofile .println ( dob);
368         ofile .println ( age);
369         ofile .println ( telephoneNo);
370     }
371     else flag =true ;
372 }
373
374 if ( !flag )
375     System.out.println ( "Name not found" );
376
377 ifile .close ();
378 ofile .close ();
379 /*
380 Same Logic as that of modify
381 */
382     replace ( "temp", "studentRecords.dbf" );
383     System.out.println ( "Data Deleted!" );
384     br.readLine();
385     showMenu();
386 }
387 }
388
389 /*
390 * var x = 1
391 * var y = 2
392 * var z = "Ritvik"
393 * Student newStudent = new Student(x, y, z);
394 */
```