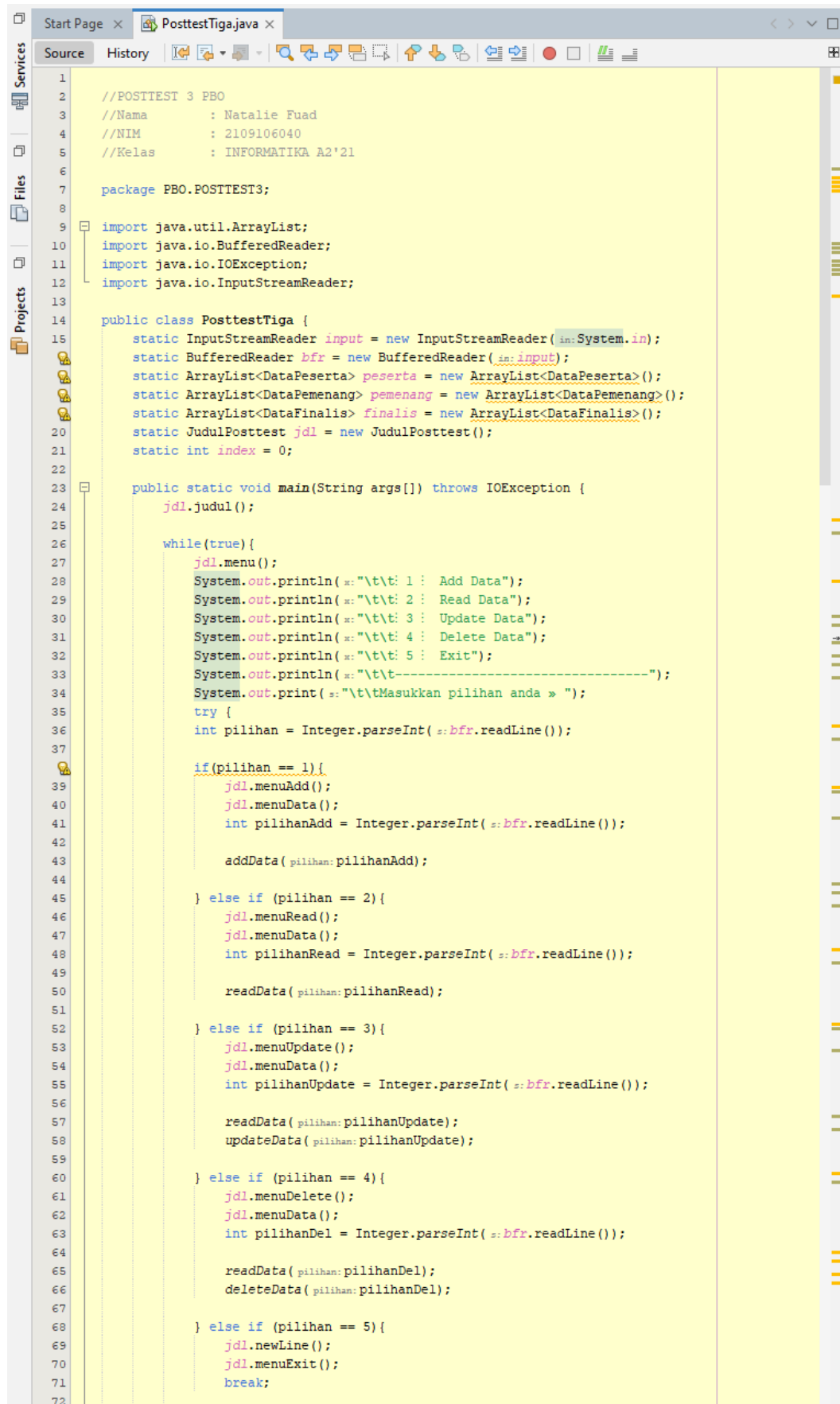**Nama** **: Natalie Fuad**

NIM **: 2109106040**

Kelas **: INFORMATIKA A2'21**

POSTTEST 3 – Pemrograman Berorientasi Objek

SCREENSHOT PROGRAM

Tema : Pendataan Peserta Lomba

Screenshot file PosttestTiga.java

```java
//POSTTEST 3 PBO
//Nama       : Natalie Fuad
//NIM        : 2109106040
//Kelas      : INFORMATIKA A2'21

package PBO.POSTTEST3;

import java.util.ArrayList;
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

public class PosttestTiga {
    static InputStreamReader input = new InputStreamReader(in:System.in);
    static BufferedReader bfr = new BufferedReader(in:input);
    static ArrayList<DataPeserta> peserta = new ArrayList<DataPeserta>();
    static ArrayList<DataPemenang> pemenang = new ArrayList<DataPemenang>();
    static ArrayList<DataFinalis> finalis = new ArrayList<DataFinalis>();
    static JudulPosttest jdl = new JudulPosttest();
    static int index = 0;

    public static void main(String args[]) throws IOException {
        jdl.judul();

        while(true){
            jdl.menu();
            System.out.println(x:"\t\t 1 : Add Data");
            System.out.println(x:"\t\t 2 : Read Data");
            System.out.println(x:"\t\t 3 : Update Data");
            System.out.println(x:"\t\t 4 : Delete Data");
            System.out.println(x:"\t\t 5 : Exit");
            System.out.println(x:"\t\t---------------------------------");
            System.out.print(s:"\t\tMasukkan pilihan anda » ");
            try {
            int pilihan = Integer.parseInt(s:bfr.readLine());

            if(pilihan == 1){
                jdl.menuAdd();
                jdl.menuData();
                int pilihanAdd = Integer.parseInt(s:bfr.readLine());

                addData(pilihan:pilihanAdd);

            } else if (pilihan == 2){
                jdl.menuRead();
                jdl.menuData();
                int pilihanRead = Integer.parseInt(s:bfr.readLine());

                readData(pilihan:pilihanRead);

            } else if (pilihan == 3){
                jdl.menuUpdate();
                jdl.menuData();
                int pilihanUpdate = Integer.parseInt(s:bfr.readLine());

                readData(pilihan:pilihanUpdate);
                updateData(pilihan:pilihanUpdate);

            } else if (pilihan == 4){
                jdl.menuDelete();
                jdl.menuData();
                int pilihanDel = Integer.parseInt(s:bfr.readLine());

                readData(pilihan:pilihanDel);
                deleteData(pilihan:pilihanDel);

            } else if (pilihan == 5){
                jdl.newLine();
                jdl.menuExit();
                break;
```

```
73              } else {
74                  jdl.newLine();
75                  jdl.nonMenu();
76                  jdl.newLine();
77              }
        } catch (Exception e){
79              jdl.newLine();
80              System.out.println( x:"\n\t\t    ! INPUT HARUS ANGKA !");
81              jdl.newLine();
82          }
83      }
84  }
```

Void addData

```java
 86        static void addData(int pilihan) throws IOException{
 87
 88            //add data peserta
 89            if (pilihan == 1){
 90                jdl.newLine();
 91                jdl.menuAddPeserta();
 92
 93                try {
 94                    int nomorPeserta = ++index;
 95                    System.out.print(s:"\t\tInput nama lengkap peserta    : ");
 96                    String nama = bfr.readLine();
 97                    System.out.print(s:"\t\tInput angkatan peserta        : ");
 98                    int angkatan = Integer.parseInt(s:bfr.readLine());
 99                    System.out.println(x:"\n\t\t*jika mahasiswa silahkan input semester*");
100                    System.out.print(s:"\t\tInput kelas peserta          : ");
101                    int kelas = Integer.parseInt(s:bfr.readLine());
102                    System.out.print(s:"\t\tInput kategori lomba          : ");
103                    String lomba = bfr.readLine();
104                    System.out.print(s:"\t\tInput asal instansi peserta   : ");
105                    String asalInstansi = bfr.readLine();
106                    System.out.println(x:"");
107
108                    peserta.add(new DataPeserta(nomorPeserta, nama, angkatan, kelas,
109                            lomba, asalInstansi));
110
111                    jdl.newLine();
112                    jdl.berhasil();
113                    jdl.newLine();
114
115                } catch (Exception e){
116                    jdl.newLine();
117                    System.out.println(x:"\n\t\t    ! INPUT HARUS ANGKA !");
118                    jdl.newLine();
119                }
120
121            // add data pemenang
122            } else if (pilihan == 2){
123                jdl.newLine();
124                jdl.menuAddPemenang();
125
126                if (peserta.size() == 0){
127                    System.out.println("\t! MOHON MASUKKAN DATA PESERTA TERLEBIH "
128                            + "DAHULU !");
129                } else {
130                    readData(pilihan:1);
131                    System.out.print(s:"\t\tPilih nomor data peserta » ");
132                    try {
133                        int indexPeserta = Integer.parseInt(s:bfr.readLine());
134
135                        if (cekData(pilihan:2, indexPeserta) == 1){
136                        } else if (cekData(pilihan:2, indexPeserta) == 2) {
137                            int nomorPeserta = peserta.get(indexPeserta-1).getNomorPeserta();
138                            String nama = peserta.get(indexPeserta-1).getNama();
139                            int angkatan = peserta.get(indexPeserta-1).getAngkatan();
140                            int kelas = peserta.get(indexPeserta-1).getKelas();
141                            String lomba = peserta.get(indexPeserta-1).getLomba();
142                            String asalInstansi = peserta.get(indexPeserta-1).getAsalInstansi();
143                            System.out.print(s:"\t\tInput kategori juara      : ");
144                            String kategoriJuara = bfr.readLine();
145                            System.out.print(s:"\t\tInput peringkat peserta    : ");
146                            int peringkat = Integer.parseInt(s:bfr.readLine());
147                            System.out.println(x:"");
148
149                            pemenang.add(new DataPemenang(nomorPeserta, nama, angkatan,
150                                    kelas, lomba, asalInstansi, kategoriJuara, peringkat));
151                            jdl.newLine();
152                            jdl.berhasil();
153                            jdl.newLine();
154                        }
```
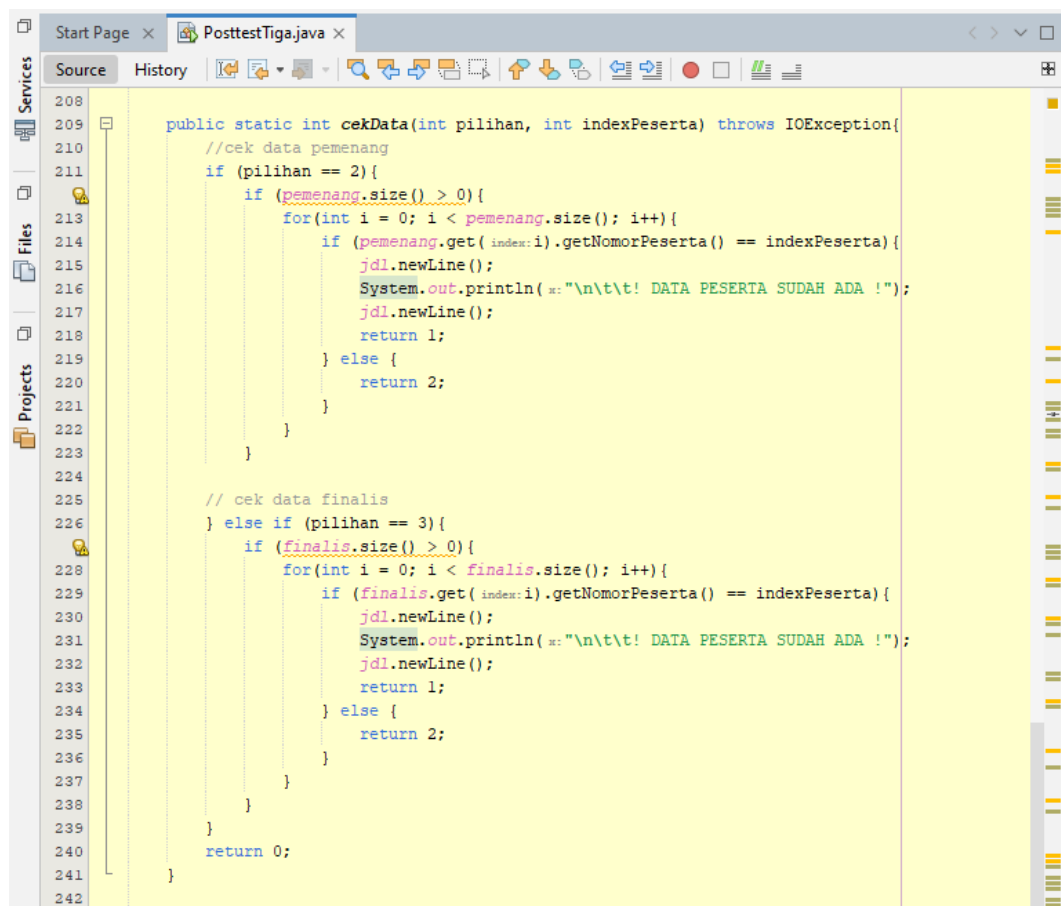
```java
                    } catch (Exception e){
156                     jdl.newLine();
157                     System.out.println( x:"\n\t\t      ! INPUT HARUS ANGKA !");
158                     jdl.newLine();
159                 }
160             }
161
162
163         //add data finalis
164         } else if (pilihan == 3){
165             jdl.newLine();
166             jdl.menuAddFinalis();
167
168         if (peserta.size() == 0){
169             System.out.println("\t! MOHON MASUKKAN DATA PESERTA TERLEBIH "
170                     + "DAHULU !");
171         } else {
172             readData( pilihan:1);
173             System.out.print( s:"\t\tPilih nomor data peserta » ");
174             try {
175                 int indexPeserta = Integer.parseInt( s:bfr.readLine());
176
177                 if (cekData( pilihan:3, indexPeserta) == 1){
178                 } else if (cekData( pilihan:3, indexPeserta) == 2){
179                     int nomorPeserta = peserta.get(indexPeserta-1).getNomorPeserta();
180                     String nama = peserta.get(indexPeserta-1).getNama();
181                     int angkatan = peserta.get(indexPeserta-1).getAngkatan();
182                     int kelas = peserta.get(indexPeserta-1).getKelas();
183                     String lomba = peserta.get(indexPeserta-1).getLomba();
184                     String asalInstansi = peserta.get(indexPeserta-1).getAsalInstansi();
185                     System.out.print( s:"\t\tInput babak finalis      : ");
186                     String tingkatBabak = bfr.readLine();
187                     System.out.println( x:"");
188
189                     finalis.add(new DataFinalis(nomorPeserta, nama, angkatan,
190                             kelas, lomba, asalInstansi, tingkatBabak));
191                     jdl.newLine();
192                     jdl.berhasil();
193                     jdl.newLine();
194                 }
195             } catch (Exception e){
196                 jdl.newLine();
197                 System.out.println( x:"\n\t\t      ! INPUT HARUS ANGKA !");
198                 jdl.newLine();
199             }
200         }
201
202         } else {
203             jdl.newLine();
204             jdl.nonMenu();
205             jdl.newLine();
206         }
207     }
208
```

PBO.POSTTEST3.PosttestTiga > addData > if (pilihan == 1) > try >

PosttestPBO (run)   running...   ×   99:17   INS Windows (CRLF)

Void cekData

```java
public static int cekData(int pilihan, int indexPeserta) throws IOException{
    //cek data pemenang
    if (pilihan == 2){
        if (pemenang.size() > 0){
            for(int i = 0; i < pemenang.size(); i++){
                if (pemenang.get(index:i).getNomorPeserta() == indexPeserta){
                    jdl.newLine();
                    System.out.println(x:"\n\t\t! DATA PESERTA SUDAH ADA !");
                    jdl.newLine();
                    return 1;
                } else {
                    return 2;
                }
            }
        }

        // cek data finalis
    } else if (pilihan == 3){
        if (finalis.size() > 0){
            for(int i = 0; i < finalis.size(); i++){
                if (finalis.get(index:i).getNomorPeserta() == indexPeserta){
                    jdl.newLine();
                    System.out.println(x:"\n\t\t! DATA PESERTA SUDAH ADA !");
                    jdl.newLine();
                    return 1;
                } else {
                    return 2;
                }
            }
        }
    }
    return 0;
}
```

Void readData

```java
        static void readData(int pilihan) throws IOException {

            // read data peserta
            if (pilihan == 1){
                jdl.newLine();
                if (peserta.size() == 0){
                    System.out.println( x:"\n\t\t      ! BELUM ADA DATA !");

                } else {
                    jdl.menuReadPeserta();
                    for (int i=0; i<peserta.size(); i++){
                        System.out.println("\t\t▸Data Peserta Ke " +(i+1));
                        System.out.println( x:"\t\t--------------------------------------------"
                        System.out.println("\t\t Nomor peserta          : "
                                        +peserta.get( index:i).getNomorPeserta());
                        System.out.println("\t\t Nama lengkap peserta   : "
                                        +peserta.get( index:i).getNama());
                        System.out.println("\t\t Angkatan               : "
                                        +peserta.get( index:i).getAngkatan());
                        System.out.println("\t\t Kelas                  : "
                                        +peserta.get( index:i).getKelas());
                        System.out.println("\t\t Lomba yang diikuti     : "
                                        +peserta.get( index:i).getLomba());
                        System.out.println("\t\t Asal Instansi peserta  : "
                                        +peserta.get( index:i).getAsalInstansi());
                        System.out.println( x:"\t\t--------------------------------------------\
                    }
                }
                jdl.newLine();

            // read data pemenang
            } else if(pilihan == 2){
                jdl.newLine();
                if (pemenang.size() == 0){
                    System.out.println( x:"\n\t\t      ! BELUM ADA DATA !");

                } else {
                    jdl.menuReadPemenang();
                    for (int i=0; i<pemenang.size(); i++){
                        System.out.println("\t\t▸Data Peserta Ke " +(i+1));
                        System.out.println( x:"\t\t--------------------------------------------"
                        System.out.println("\t\t Nomor Peserta          : "
                                        +pemenang.get( index:i).getNomorPeserta());
                        System.out.println("\t\t Nama lengkap Peserta   : "
                                        +pemenang.get( index:i).getNama());
                        System.out.println("\t\t Angkatan               : "
                                        +pemenang.get( index:i).getAngkatan());
                        System.out.println("\t\t Kelas                  : "
                                        +pemenang.get( index:i).getKelas());
                        System.out.println("\t\t Lomba yang diikuti     : "
                                        +pemenang.get( index:i).getLomba());
                        System.out.println("\t\t Asal Instansi Peserta  : "
                                        +pemenang.get( index:i).getAsalInstansi());
                        System.out.println("\t\t Kategori Juara         : "
                                        +pemenang.get( index:i).getKategoriJuara());
                        System.out.println("\t\t Peringkat peserta      : "
                                        +pemenang.get( index:i).getPeringkat());
                        System.out.println( x:"\t\t--------------------------------------------\
                    }
                }
                jdl.newLine();
```

```java
305             // read data finalis
306         } else if(pilihan == 3){
307             jdl.newLine();
308             if (finalis.size() == 0){
309                 System.out.println( x:"\n\t\t        ! BELUM ADA DATA !");
310
311             } else {
312                 jdl.menuReadPemenang();
313                 for (int i=0; i<finalis.size(); i++){
314                     System.out.println("\t\t▸Data Peserta Ke " +(i+1));
315                     System.out.println( x:"\t\t-----------------------------------------------"
316                     System.out.println("\t\t Nomor Peserta          : "
317                                         +finalis.get( index:i).getNomorPeserta());
318                     System.out.println("\t\t Nama lengkap Peserta   : "
319                                         +finalis.get( index:i).getNama());
320                     System.out.println("\t\t Angkatan               : "
321                                         +finalis.get( index:i).getAngkatan());
322                     System.out.println("\t\t Kelas                  : "
323                                         +finalis.get( index:i).getKelas());
324                     System.out.println("\t\t Lomba yang diikuti     : "
325                                         +finalis.get( index:i).getLomba());
326                     System.out.println("\t\t Asal Instansi Peserta  : "
327                                         +finalis.get( index:i).getAsalInstansi());
328                     System.out.println("\t\t Babak Finalis          : "
329                                         +finalis.get( index:i).getTingkatBabak());
330                     System.out.println( x:"\t\t-----------------------------------------------\n
331                 }
332             }
333             jdl.newLine();
334
335         } else {
336             jdl.newLine();
337             jdl.nonMenu();
338             jdl.newLine();
339         }
340     }
341
```

PBO.POSTTEST3.PosttestTiga > addData > if (pilihan == 1) > try >

PosttestPBO (run)   running...   ×   99:17   INS Windows (CRLF)

Void updateData

```java
        static void updateData(int pilihan) throws IOException {

            //update data peserta
            if (pilihan == 1){
                if (peserta.size() == 0){
                    System.out.println( x:"\t! MOHON MASUKKAN DATA PESERTA TERLEBIH DAHULU !");
                } else {
                    System.out.print( s:"\t\tInput nomor data yang ingin diubah » ");
                    try {
                        int indexUp = Integer.parseInt( s:bfr.readLine());
                        System.out.println( x:"\t\t-----------------------------------------------");

                        System.out.print( s:"\n\t\tIngin mengubah data nama?\n\t\t[Yes»1/No»2] » ");
                        int ubahNama = Integer.parseInt( s:bfr.readLine());
                        if(ubahNama == 1){
                            System.out.print( s:"\n\t\tInput nama lengkap peserta  : ");
                            String newNama = bfr.readLine();
                            peserta.get(indexUp-1).setNama( nama:newNama);
                        } else if (ubahNama == 2){
                        }

                        System.out.print( s:"\n\t\tIngin mengubah data angkatan?\n\t\t[Yes»1/No»2] x
                        int ubahAngkatan = Integer.parseInt( s:bfr.readLine());

                        if(ubahAngkatan == 1){
                            System.out.print( s:"\n\t\tInput angkatan data peserta        : ");
                            int newAngkatan = Integer.parseInt( s:bfr.readLine());
                            peserta.get(indexUp-1).setAngkatan( angkatan:newAngkatan);
                        } else if (ubahAngkatan == 2){
                        }

                        System.out.print( s:"\n\t\tIngin mengubah data kelas?\n\t\t[Yes»1/No»2] » ")
                        int ubahKelas = Integer.parseInt( s:bfr.readLine());

                        if(ubahKelas == 1){
                            System.out.println( x:"\n\t\t*jika mahasiswa silahkan input semester*");
                            System.out.print( s:"\t\tInput kelas peserta          : ");
                            int newKelas = Integer.parseInt( s:bfr.readLine());
                            peserta.get(indexUp-1).setKelas( kelas:newKelas);
                        } else if (ubahKelas == 2){
                        }

                        System.out.print( s:"\n\t\tIngin mengubah data lomba?\n\t\t[Yes»1/No»2] » ")
                        int ubahLomba = Integer.parseInt( s:bfr.readLine());

                        if(ubahLomba == 1){
                            System.out.print( s:"\n\t\tInput lomba yang diikuti      : ");
                            String newLomba = bfr.readLine();
                            peserta.get(indexUp-1).setLomba( lomba:newLomba);
                        } else if (ubahLomba == 2){
                        }

                        System.out.print( s:"\n\t\tIngin mengubah data asal instansi?\n\t\t[Yes»1/No
                        int ubahInstansi = Integer.parseInt( s:bfr.readLine());

                        if(ubahInstansi == 1){
                            System.out.print( s:"\n\t\tInput asal instansi peserta  : ");
                            String newAsalInstansi = bfr.readLine();
                            peserta.get(indexUp-1).setAsalInstansi( asalInstansi:newAsalInstansi);
                        } else if (ubahInstansi == 2){
                        }

                        System.out.println( x:"");
                        jdl.newLine();
                        jdl.berhasil();
                        jdl.newLine();

                    } catch (Exception e){
                        jdl.newLine();
                        System.out.println( x:"\n\t\t     ! INPUT HARUS ANGKA !");
                        jdl.newLine();
                    }
                }
            }
```
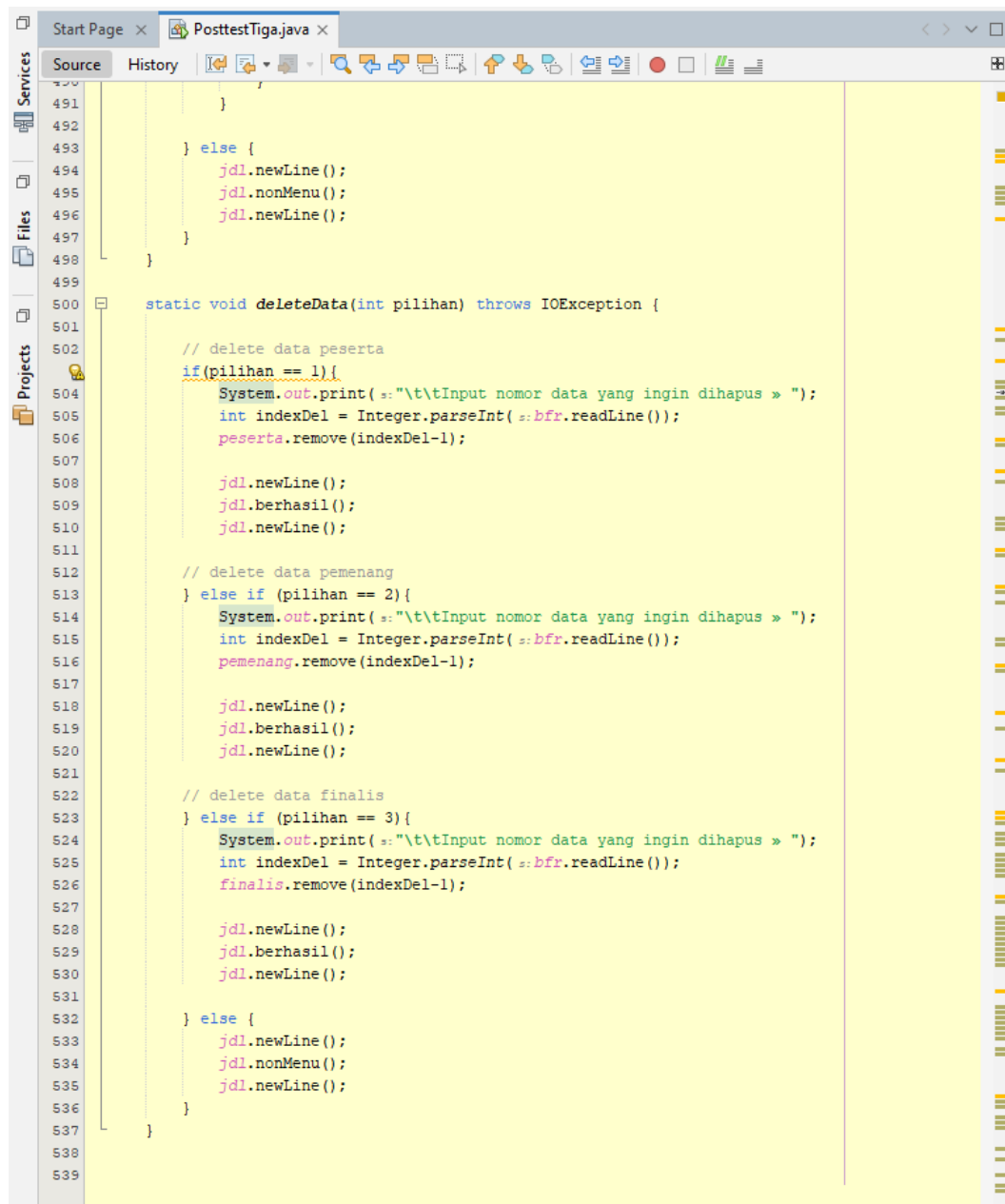
```java
413                    }
414                }
415
416            // update data pemenang
417            } else if(pilihan == 2){
418                if (peserta.size() == 0){
419                    System.out.println( x:"\t! MOHON MASUKKAN DATA PESERTA TERLEBIH DAHULU !");
420                } else {
421                    System.out.print( s:"\t\tInput nomor data yang ingin diubah » ");
422                    try {
423                        int indexUp = Integer.parseInt( s:bfr.readLine());
424                        System.out.println( x:"\t\t----------------------------------------------");
425
426                        System.out.print( s:"\n\t\tIngin mengubah data kategori juara?\n\t\t[Yes»1/N
427                        int ubahJuara = Integer.parseInt( s:bfr.readLine());
428
429                        if(ubahJuara == 1){
430                            // contoh data yang di-inputkan » "utama/harapan/favorite"
431                            System.out.print( s:"\t\tInput kategori juara       : ");
432                            String newKategoriJuara = bfr.readLine();
433                            pemenang.get(indexUp-1).setKategoriJuara( kategoriJuara:newKategoriJuara);
434                        } else if (ubahJuara == 2){
435                        }
436
437                        System.out.print( s:"\n\t\tIngin mengubah data peringkat?\n\t\t[Yes»1/No»2]
438                        int ubahPeringkat = Integer.parseInt( s:bfr.readLine());
439
440                        if(ubahPeringkat == 1){
441                            // contoh data yang di-inputkan » "1, 2, 3, dst."
442                            System.out.print( s:"\n\t\tInput peringkat peserta  : ");
443                            int newPeringkat = Integer.parseInt( s:bfr.readLine());
444                            pemenang.get(indexUp-1).setPeringkat( peringkat:newPeringkat);
445                        } else if (ubahPeringkat == 2){
446                        }
447
448                        System.out.println( x:"");
449                        jdl.newLine();
450                        jdl.berhasil();
451                        jdl.newLine();
452
                        } catch (Exception e){
454                            jdl.newLine();
455                            System.out.println( x:"\n\t\t    ! INPUT HARUS ANGKA !");
456                            jdl.newLine();
457                    }
458                }
459
```

```java
460            // update data finalis
461            } else if(pilihan == 3){
                   if (peserta.size() == 0){
463                    System.out.println( x:"\t! MOHON MASUKKAN DATA PESERTA TERLEBIH DAHULU !");
464                } else {
465                    System.out.print( s:"\t\tInput nomor data yang ingin diubah » ");
466                    try {
467                        int indexUp = Integer.parseInt( s:bfr.readLine());
468                        System.out.println( x:"\t\t---------------------------------------------");
469
470                        System.out.print( s:"\n\t\tIngin mengubah data babak finalis?\n\t\t[Yes»1/No
471                        int ubahTingkat = Integer.parseInt( s:bfr.readLine());
472
473                        if(ubahTingkat == 1){
474                            // contoh data yang di-inputkan » "semi-final/grand-final"
475                            System.out.print( s:"\t\tInput babak finalis        : ");
476                            String newTingkatBabak = bfr.readLine();
477                            finalis.get(indexUp-1).setTingkatBabak( tingkatBabak:newTingkatBabak);
478                        } else if (ubahTingkat == 2){
479                        }
480
481                        System.out.println( x:"");
482                        jdl.newLine();
483                        jdl.berhasil();
484                        jdl.newLine();
485
                       } catch (Exception e){
487                        jdl.newLine();
488                        System.out.println( x:"\n\t\t      ! INPUT HARUS ANGKA !");
489                        jdl.newLine();
490                    }
491                }
492
493            } else {
494                jdl.newLine();
495                jdl.nonMenu();
496                jdl.newLine();
497            }
498        }
499
```
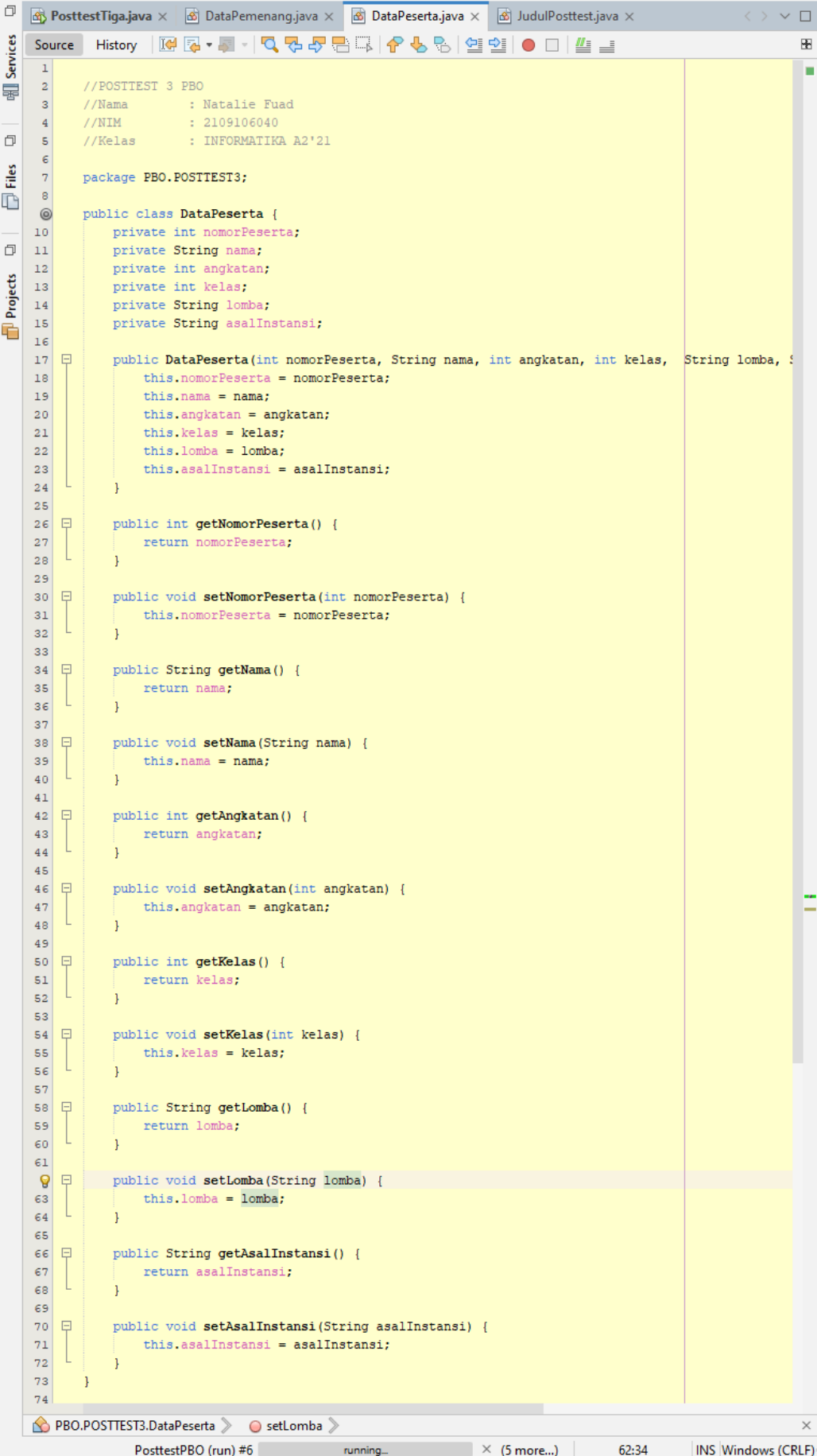
Void deleteData


```java
                }
            }

        } else {
            jdl.newLine();
            jdl.nonMenu();
            jdl.newLine();
        }
    }

    static void deleteData(int pilihan) throws IOException {

        // delete data peserta
        if(pilihan == 1){
            System.out.print( s:"\t\tInput nomor data yang ingin dihapus » ");
            int indexDel = Integer.parseInt( s:bfr.readLine());
            peserta.remove(indexDel-1);

            jdl.newLine();
            jdl.berhasil();
            jdl.newLine();

        // delete data pemenang
        } else if (pilihan == 2){
            System.out.print( s:"\t\tInput nomor data yang ingin dihapus » ");
            int indexDel = Integer.parseInt( s:bfr.readLine());
            pemenang.remove(indexDel-1);

            jdl.newLine();
            jdl.berhasil();
            jdl.newLine();

        // delete data finalis
        } else if (pilihan == 3){
            System.out.print( s:"\t\tInput nomor data yang ingin dihapus » ");
            int indexDel = Integer.parseInt( s:bfr.readLine());
            finalis.remove(indexDel-1);

            jdl.newLine();
            jdl.berhasil();
            jdl.newLine();

        } else {
            jdl.newLine();
            jdl.nonMenu();
            jdl.newLine();
        }
    }
```

Screenshot file DataPeserta.java
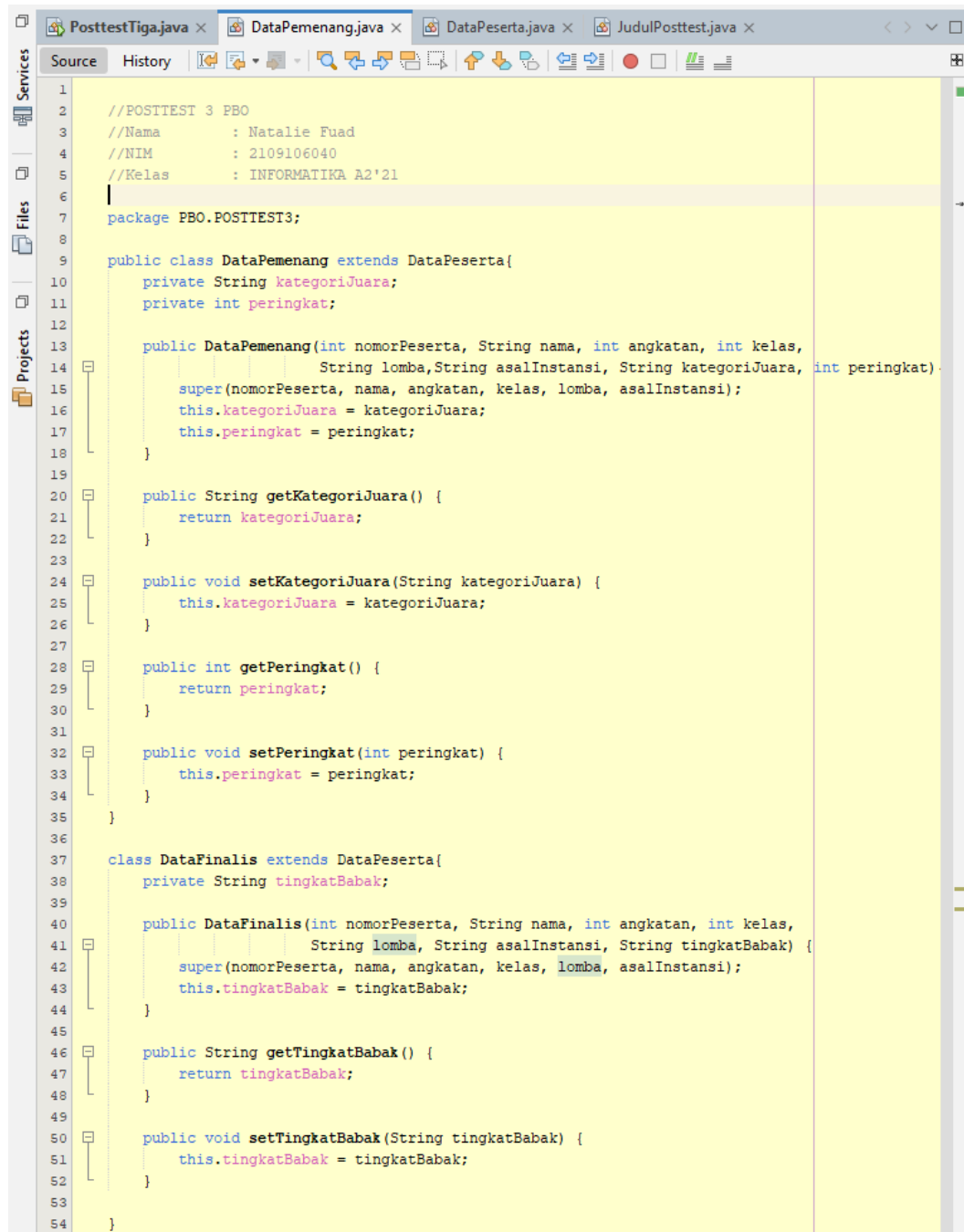
```java
//POSTTEST 3 PBO
//Nama      : Natalie Fuad
//NIM       : 2109106040
//Kelas     : INFORMATIKA A2'21

package PBO.POSTTEST3;

public class DataPeserta {
    private int nomorPeserta;
    private String nama;
    private int angkatan;
    private int kelas;
    private String lomba;
    private String asalInstansi;

    public DataPeserta(int nomorPeserta, String nama, int angkatan, int kelas,  String lomba, 
        this.nomorPeserta = nomorPeserta;
        this.nama = nama;
        this.angkatan = angkatan;
        this.kelas = kelas;
        this.lomba = lomba;
        this.asalInstansi = asalInstansi;
    }

    public int getNomorPeserta() {
        return nomorPeserta;
    }

    public void setNomorPeserta(int nomorPeserta) {
        this.nomorPeserta = nomorPeserta;
    }

    public String getNama() {
        return nama;
    }

    public void setNama(String nama) {
        this.nama = nama;
    }

    public int getAngkatan() {
        return angkatan;
    }

    public void setAngkatan(int angkatan) {
        this.angkatan = angkatan;
    }

    public int getKelas() {
        return kelas;
    }

    public void setKelas(int kelas) {
        this.kelas = kelas;
    }

    public String getLomba() {
        return lomba;
    }

    public void setLomba(String lomba) {
        this.lomba = lomba;
    }

    public String getAsalInstansi() {
        return asalInstansi;
    }

    public void setAsalInstansi(String asalInstansi) {
        this.asalInstansi = asalInstansi;
    }
}
```

Screenshoot file DataPemenang.java

```java
//POSTTEST 3 PBO
//Nama        : Natalie Fuad
//NIM         : 2109106040
//Kelas       : INFORMATIKA A2'21

package PBO.POSTTEST3;

public class DataPemenang extends DataPeserta{
    private String kategoriJuara;
    private int peringkat;

    public DataPemenang(int nomorPeserta, String nama, int angkatan, int kelas,
                        String lomba,String asalInstansi, String kategoriJuara, int peringkat){
        super(nomorPeserta, nama, angkatan, kelas, lomba, asalInstansi);
        this.kategoriJuara = kategoriJuara;
        this.peringkat = peringkat;
    }

    public String getKategoriJuara() {
        return kategoriJuara;
    }

    public void setKategoriJuara(String kategoriJuara) {
        this.kategoriJuara = kategoriJuara;
    }

    public int getPeringkat() {
        return peringkat;
    }

    public void setPeringkat(int peringkat) {
        this.peringkat = peringkat;
    }
}

class DataFinalis extends DataPeserta{
    private String tingkatBabak;

    public DataFinalis(int nomorPeserta, String nama, int angkatan, int kelas,
                       String lomba, String asalInstansi, String tingkatBabak) {
        super(nomorPeserta, nama, angkatan, kelas, lomba, asalInstansi);
        this.tingkatBabak = tingkatBabak;
    }

    public String getTingkatBabak() {
        return tingkatBabak;
    }

    public void setTingkatBabak(String tingkatBabak) {
        this.tingkatBabak = tingkatBabak;
    }

}
```

Screenshot file JudulPosttest.java

```java
1
2    //POSTTEST 3 PBO
3    //Nama        : Natalie Fuad
4    //NIM         : 2109106040
5    //Kelas       : INFORMATIKA A2'21
6
7    package PBO.POSTTEST3;
8
9    public class JudulPosttest {
10       void judul(){
11           System.out.println("\t ◇◇ = = = = = = = = = = = = = = = = = = = ◇◇");
12           System.out.println("\t\t SISTEM PENDATAAN PESERTA LOMBA");
13           System.out.println("\t ◇◇ = = = = = = = = = = = = = = = = = = = ◇◇");
14       }
15
16       void menu(){
17           System.out.println("\n\t\t==============================");
18           System.out.println("\t\t              MENU");
19           System.out.println("\t\t==============================");
20       }
21
22       void menuData(){
23           System.out.println("\t\t 1  Data Peserta");
24           System.out.println("\t\t 2  Data Pemenang");
25           System.out.println("\t\t 3  Data Finalis");
26           System.out.println("\t\t------------------------------");
27           System.out.print("\t\tMasukkan pilihan anda » ");
28       }
29
30       void menuAdd(){
31           System.out.println("\n\t\t==============================");
32           System.out.println("\t\t        MENU ADD DATA");
33           System.out.println("\t\t==============================");
34       }
35
36       void menuRead(){
37           System.out.println("\n\t\t==============================");
38           System.out.println("\t\t        MENU READ DATA");
39           System.out.println("\t\t==============================");
40       }
41
42       void menuUpdate(){
43           System.out.println("\n\t\t==============================");
44           System.out.println("\t\t       MENU UPDATE DATA");
45           System.out.println("\t\t==============================");
46       }
47
48       void menuDelete(){
49           System.out.println("\n\t\t==============================");
50           System.out.println("\t\t       MENU DELETE DATA");
51           System.out.println("\t\t==============================");
52       }
53
54       void menuAddPeserta(){
55           System.out.println("\n\t\t==============================");
56           System.out.println("\t\t       ADD DATA PESERTA");
57           System.out.println("\t\t==============================\n");
58       }
59
60       void menuAddPemenang(){
61           System.out.println("\n\t\t==============================");
62           System.out.println("\t\t       ADD DATA PEMENANG");
63           System.out.println("\t\t==============================\n");
64       }
65
66       void menuAddFinalis(){
67           System.out.println("\n\t\t==============================");
68           System.out.println("\t\t       ADD DATA FINALIS");
69           System.out.println("\t\t==============================\n");
70       }
71
72       void menuReadPeserta(){
73           System.out.println("\n\t\t==============================");
74           System.out.println("\t\t       READ DATA PESERTA");
```

PBO.POSTTEST3.JudulPosttest > nonMenu >

PosttestPBO (run) #6   running...   (5 more...)   139:20   INS Windows (CRLF)

```java
72    void menuReadPeserta(){
73        System.out.println(x:"\n\t\t===============================");
74        System.out.println(x:"\t\t        READ DATA PESERTA");
75        System.out.println(x:"\t\t===============================\n");
76    }
77
78    void menuReadPemenang(){
79        System.out.println(x:"\n\t\t===============================");
80        System.out.println(x:"\t\t        READ DATA PEMENANG");
81        System.out.println(x:"\t\t===============================\n");
82    }
83
84    void menuReadFinalis(){
85        System.out.println(x:"\n\t\t===============================");
86        System.out.println(x:"\t\t        READ DATA FINALIS");
87        System.out.println(x:"\t\t===============================\n");
88    }
89
90    void menuUpdatePeserta(){
91        System.out.println(x:"\n\t\t===============================");
92        System.out.println(x:"\t\t        UPDATE DATA PESERTA");
93        System.out.println(x:"\t\t===============================\n");
94    }
95
96    void menuUpdatePemenang(){
97        System.out.println(x:"\n\t\t===============================");
98        System.out.println(x:"\t\t        UPDATE DATA PEMENANG");
99        System.out.println(x:"\t\t===============================\n");
100   }
101
102   void menuUpdateFinalis(){
103       System.out.println(x:"\n\t\t===============================");
104       System.out.println(x:"\t\t        UPDATE DATA FINALIS");
105       System.out.println(x:"\t\t===============================\n");
106   }
107
108   void menuDeletePeserta(){
109       System.out.println(x:"\n\t\t===============================");
110       System.out.println(x:"\t\t        DELETE DATA PESERTA");
111       System.out.println(x:"\t\t===============================\n");
112   }
113
114   void menuDeletePemenang(){
115       System.out.println(x:"\n\t\t===============================");
116       System.out.println(x:"\t\t        DELETE DATA PEMENANG");
117       System.out.println(x:"\t\t===============================\n");
118   }
119
120   void menuDeleteFinalis(){
121       System.out.println(x:"\n\t\t===============================");
122       System.out.println(x:"\t\t        DELETE DATA FINALIS");
123       System.out.println(x:"\t\t===============================\n");
124   }
125
126   void menuExit(){
127       System.out.println(x:"\n\t\t              ✧ ................. ✧\n");
128       System.out.println(x:"\t\t\t    ! BYE BYE !");
129       System.out.println(x:"\n\t\t\t       (✿‿‿‿)");
130       System.out.println(x:"\t\t              ✧ ................. ✧\n");
131   }
132
133   void berhasil(){
134       System.out.println(x:"\n\t\t===============================");
135       System.out.println(x:"\t\t        ! PROSES BERHASIL !");
136       System.out.println(x:"\t\t===============================");
137   }
138
139   void nonMenu(){
140       System.out.println(x:"\n\t\t\t        ................\n");
141       System.out.println(x:"\t\t    ! PILIHAN TIDAK TERSEDIA !");
142       System.out.println(x:"\n\t\t\t        ................");
143   }
144
```

```
145    void newLine(){
146        System.out.println( x:"\n-------------------------------------------------------------
147    }
148  }
```