Tunisian Elections:
Hope and solutions

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Introduction

Elections has always been a rich subject for conspiracy theories and people who doubt its results even in the most "advanced" democracies.

In order to overcome this issue and using our technological knowledge, we thought about putting in use a system that allows people to consult the history of a given candidate, his score based on a formula and directly vote to someone without having mediators to count or even supervise the operation.

1/ Functional needs:

Functional needs formally put what the system does in relation with the actors who are going to exploit it.

Visitor:

- See the scores of the candidates

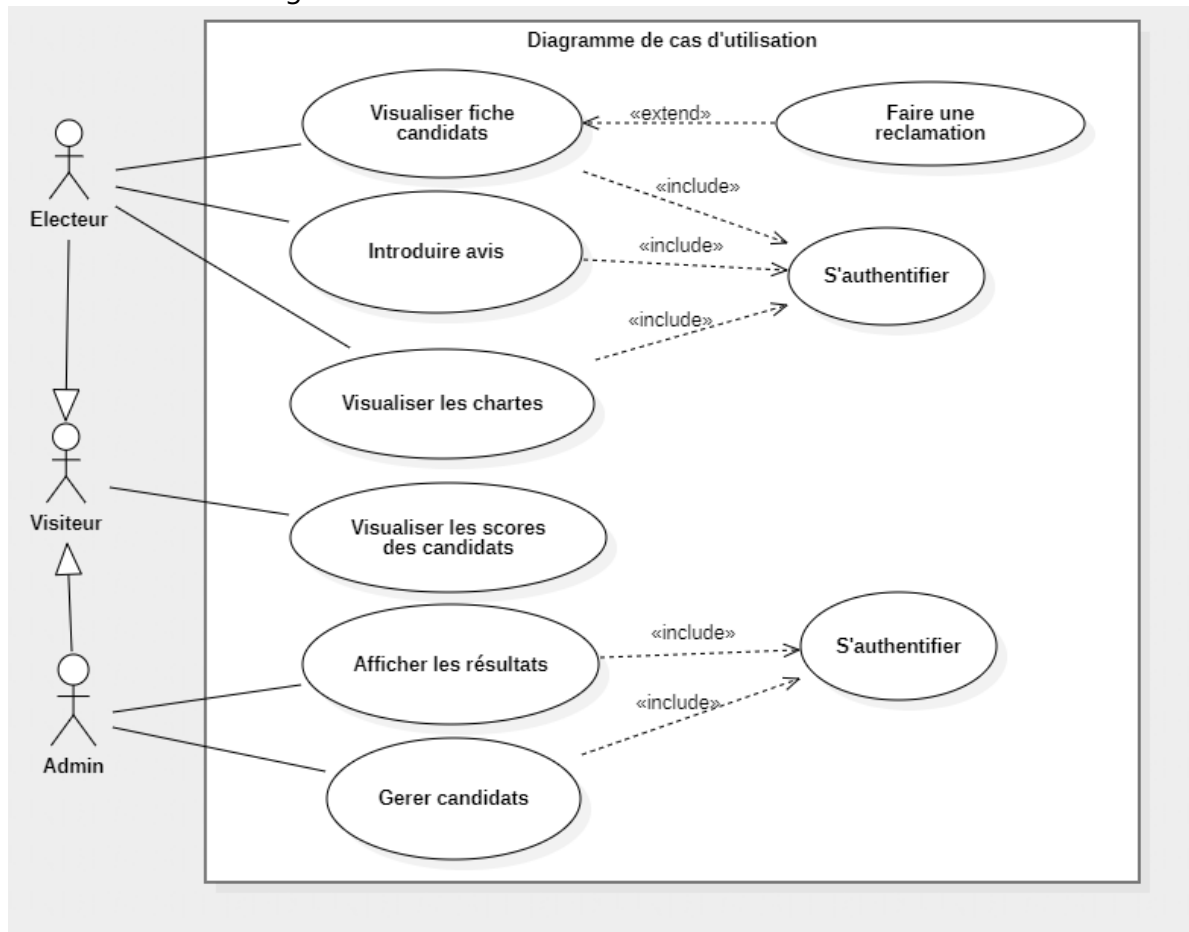**Elector:** (inherited from visitor)

- See the detailed file of the candidates
- See the electoral lists
- See charts about the candidate
- Vote for a candidate
- Report something in a candidate's profile
- Sign in
- Sign up

Admin: (inherited from visitor as well)

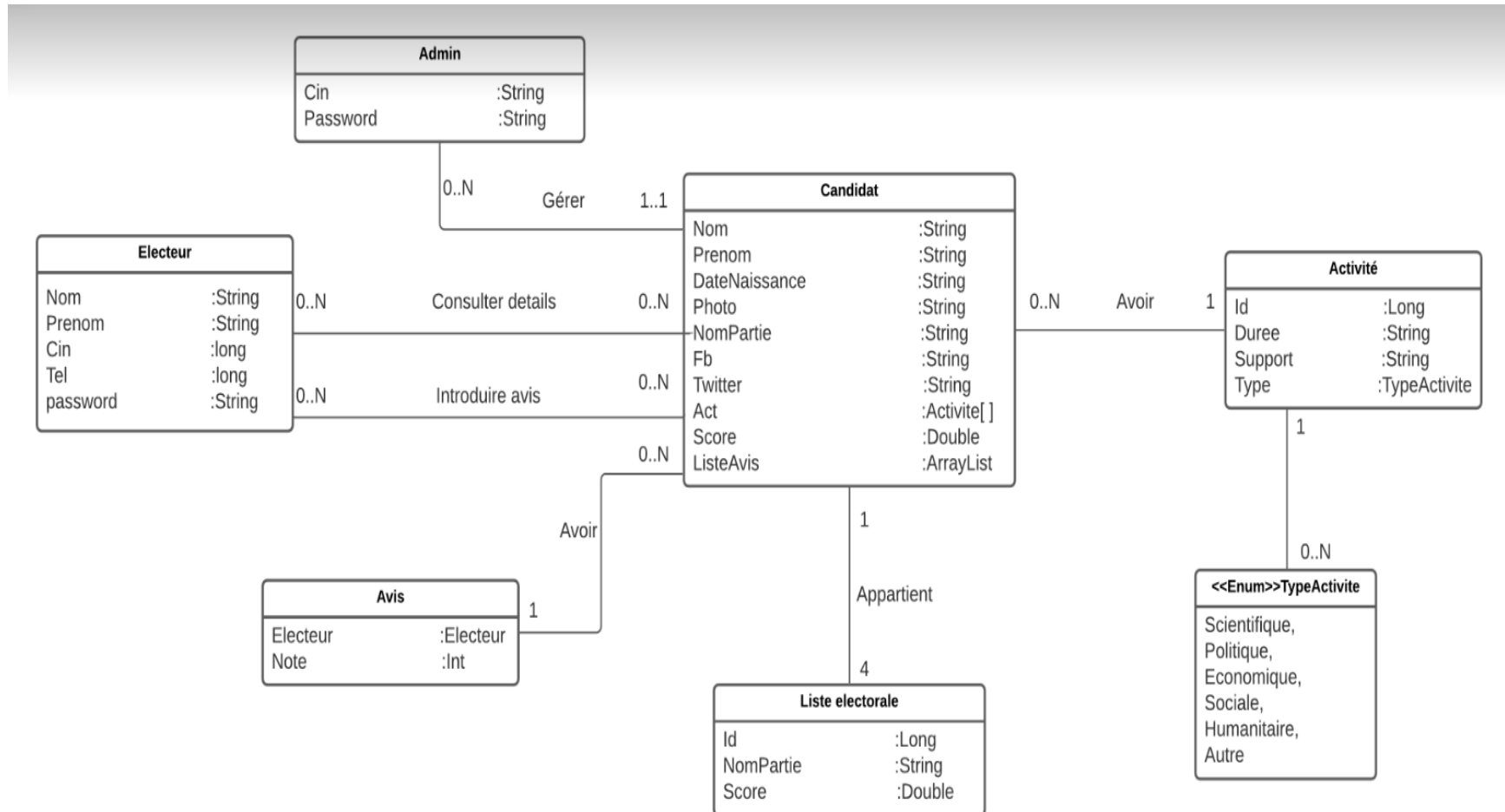- Manage the candidates
- Check results
- Sign in

2/ Use case Diagram

Here's our use case diagram

3/ Class Diagram

Here's our Class Diagram

Admin

Cin	:String
Password	:String

0..N — Gérer — 1..1

Candidat

Nom	:String
Prenom	:String
DateNaissance	:String
Photo	:String
NomPartie	:String
Fb	:String
Twitter	:String
Act	:Activite[ ]
Score	:Double
ListeAvis	:ArrayList

Electeur

Nom	:String
Prenom	:String
Cin	:long
Tel	:long
password	:String

0..N — Consulter details — 0..N

0..N — Introduire avis — 0..N

0..N — Avoir

Activité

Id	:Long
Duree	:String
Support	:String
Type	:TypeActivite

0..N — Avoir — 1

1

0..N

<<Enum>>TypeActivite

Scientifique,
Politique,
Economique,
Sociale,
Humanitaire,
Autre

Avis

Electeur	:Electeur
Note	:Int

1

1 — Appartient — 4

Liste electorale

Id	:Long
NomPartie	:String
Score	:Double

4/ Code screenshots

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER

OPEN EDITORS
- Release Notes: 1.63.2
- × Candidat.java Entities   9+

SRC
- DataTest
  - DataFactory.java
- Entities
  - Activite.java
  - Admin.java   1
  - Avis.java   1
  - Candidat.java   9+
  - Electeur.java   2
- Enumeration
  - TypesActivites.java
- Implementation
  - ListeDesElecteurs.java   9
  - ListeDesListe.java   5
  - ListeElectorale.java   9+
- Traitement
  - AdminView.java   1
  - ElecteurView.java   9+
  - Main.java   9+
  - ScreenEvent.java

Entities > Candidat.java > {} Entities

```java
8    public class Candidat {
9
10       static int count=0;
11       long id=0;
12       String nom;
13       long cin;
14       String prenom;
15       String dateNaissance;
16       String photo;
17       String nomPartie;
18       String fb;
19       String tweeter;
20       List<Activite> act = new ArrayList<Activite>();
21       Double score;
22       ArrayList<Avis> l = new ArrayList<Avis>();//
23
24       Scanner s= new Scanner(System.in);
25
26
27       public Candidat() {
28           this.id=++count;
29           this.calculScore();
30
31       }
32
33       public Candidat(String nom,long cin, String prenom, String dateNaissance, String photo, String nomPartie, String
34           this.id=++count;
35           this.nom = nom;
```

TERMINAL   PROBLEMS 93   OUTPUT   DEBUG CONSOLE   Java Process Console
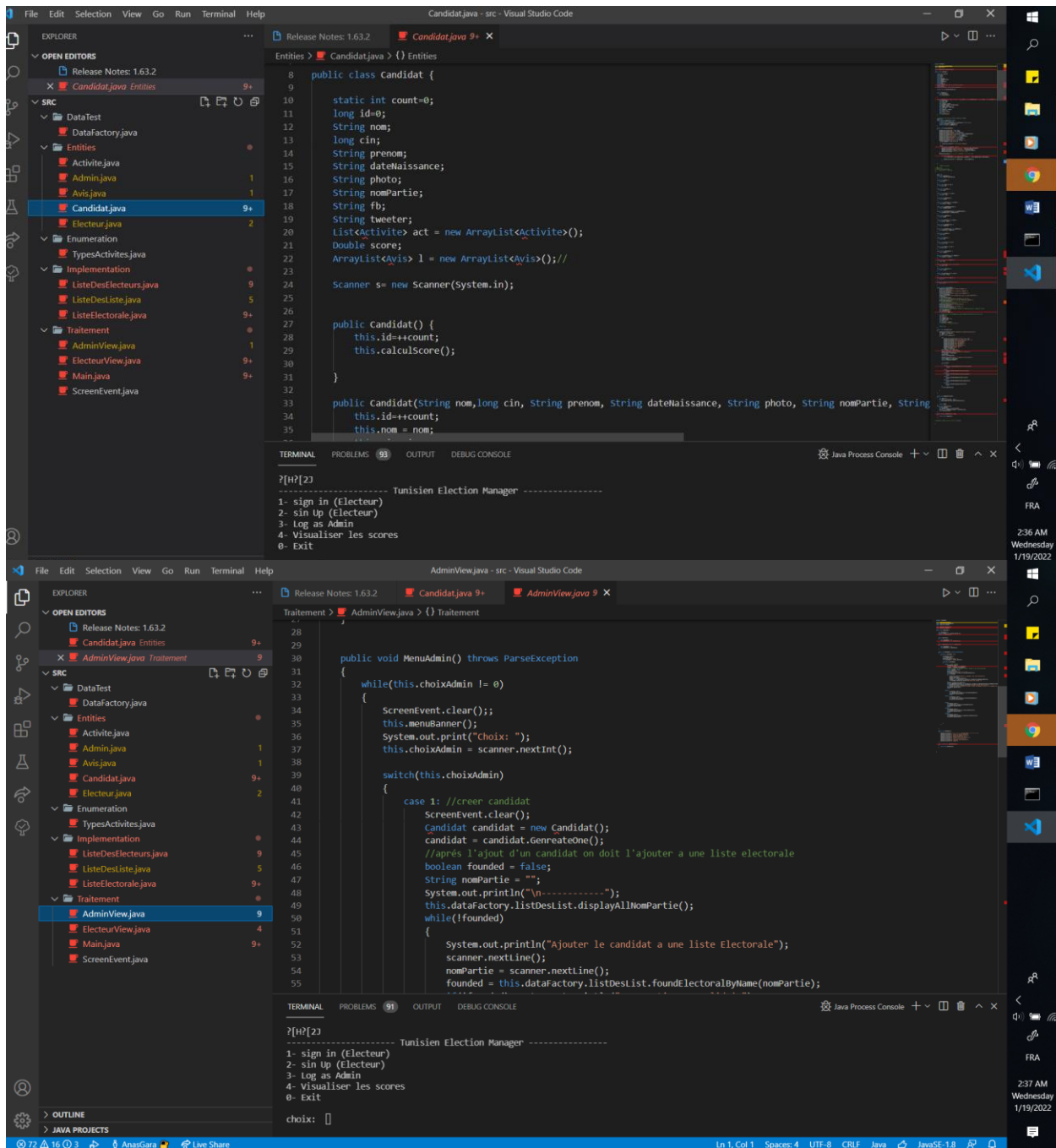
```
?[H?[2J
-------------------- Tunisien Election Manager ----------------
1- sign in (Electeur)
2- sin Up (Electeur)
3- Log as Admin
4- Visualiser les scores
0- Exit
```

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER

OPEN EDITORS
- Release Notes: 1.63.2
- Candidat.java Entities   9+
- × AdminView.java Traitement   9

SRC
- DataTest
  - DataFactory.java
- Entities
  - Activite.java
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  - Avis.java   1
  - Candidat.java   9+
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- Enumeration
  - TypesActivites.java
- Implementation
  - ListeDesElecteurs.java   9
  - ListeDesListe.java   5
  - ListeElectorale.java   9+
- Traitement
  - AdminView.java   9
  - ElecteurView.java   4
  - Main.java   9+
  - ScreenEvent.java

Traitement > AdminView.java > {} Traitement

```java
28       }
29
30       public void MenuAdmin() throws ParseException
31       {
32           while(this.choixAdmin != 0)
33           {
34               ScreenEvent.clear();;
35               this.menuBanner();
36               System.out.print("Choix: ");
37               this.choixAdmin = scanner.nextInt();
38
39               switch(this.choixAdmin)
40               {
41                   case 1: //creer candidat
42                       ScreenEvent.clear();
43                       Candidat candidat = new Candidat();
44                       candidat = candidat.GenreateOne();
45                       //après l'ajout d'un candidat on doit l'ajouter a une liste electorale
46                       boolean founded = false;
47                       String nomPartie = "";
48                       System.out.println("\n------------");
49                       this.dataFactory.listDesList.displayAllNomPartie();
50                       while(!founded)
51                       {
52                           System.out.println("Ajouter le candidat a une liste Electorale");
53                           scanner.nextLine();
54                           nomPartie = scanner.nextLine();
55                           founded = this.dataFactory.listDesList.foundElectoralByName(nomPartie);
```

TERMINAL   PROBLEMS 91   OUTPUT   DEBUG CONSOLE   Java Process Console

```
?[H?[2J
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choix: []
```
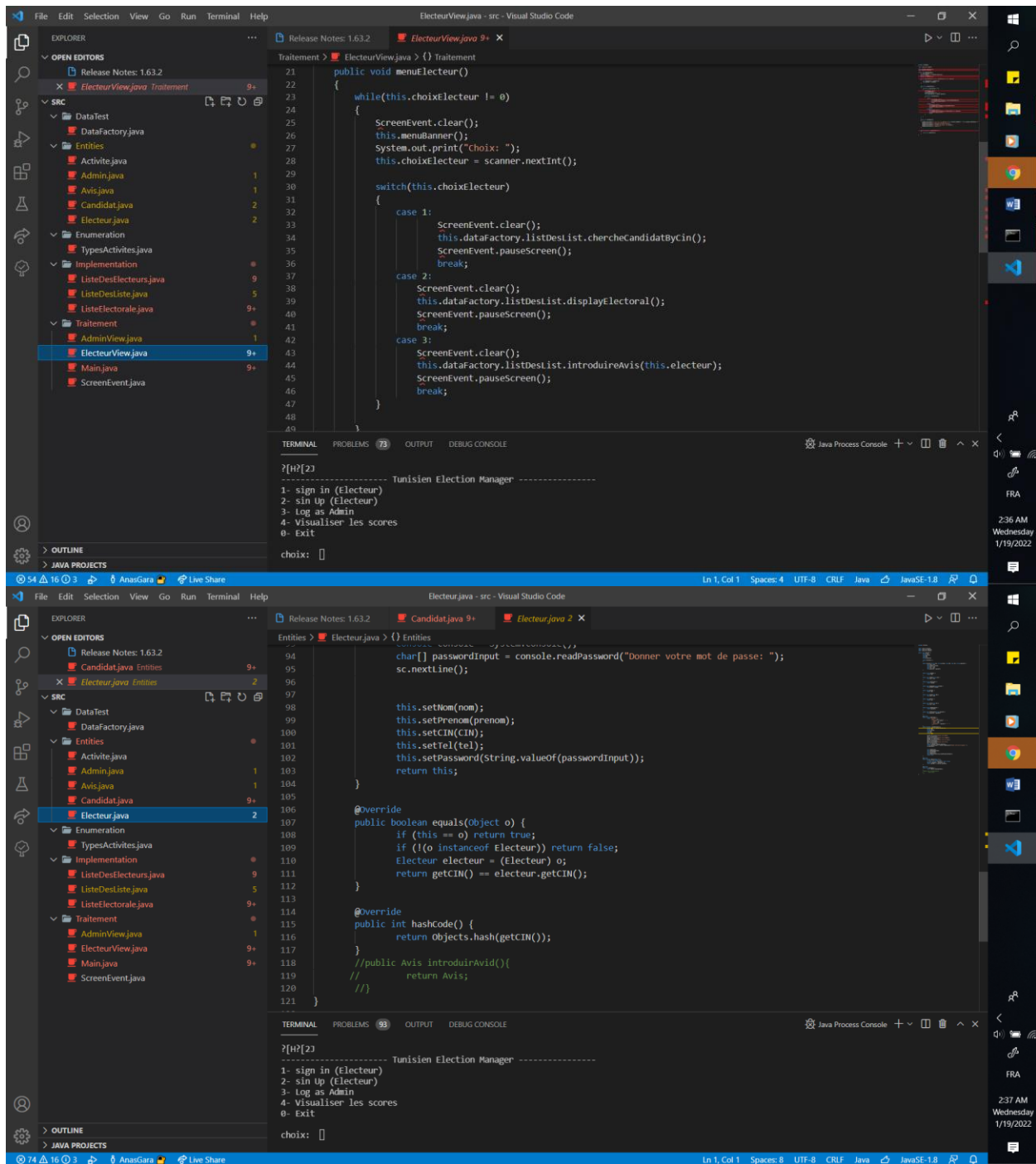
OUTLINE
JAVA PROJECTS

⊗ 72 △ 16 ① 3   AnasGara   Live Share   Ln 1, Col 1   Spaces: 4   UTF-8   CRLF   Java   JavaSE-1.8

File Edit Selection View Go Run Terminal Help

Release Notes: 1.63.2   ElecteurView.java 9+ ×

Traitement > ElecteurView.java > {} Traitement

```java
21    public void menuElecteur()
22    {
23        while(this.choixElecteur != 0)
24        {
25            ScreenEvent.clear();
26            this.menuBanner();
27            System.out.print("Choix: ");
28            this.choixElecteur = scanner.nextInt();
29
30            switch(this.choixElecteur)
31            {
32                case 1:
33                    ScreenEvent.clear();
34                    this.dataFactory.listDesList.chercheCandidatByCin();
35                    ScreenEvent.pauseScreen();
36                    break;
37                case 2:
38                    ScreenEvent.clear();
39                    this.dataFactory.listDesList.displayElectoral();
40                    ScreenEvent.pauseScreen();
41                    break;
42                case 3:
43                    ScreenEvent.clear();
44                    this.dataFactory.listDesList.introduireAvis(this.electeur);
45                    ScreenEvent.pauseScreen();
46                    break;
47            }
48
49        }
```

TERMINAL   PROBLEMS 73   OUTPUT   DEBUG CONSOLE

Java Process Console

```
?[H?[2J
---------------- Tunisien Election Manager ----------------
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choix: 
```

Ln 1, Col 1   Spaces: 4   UTF-8   CRLF   Java   JavaSE-1.8

File Edit Selection View Go Run Terminal Help

Release Notes: 1.63.2   Candidat.java 9+   Electeur.java 2 ×

Entities > Electeur.java > {} Entities

```java
93                                       SystemConsole();
94            char[] passwordInput = console.readPassword("Donner votre mot de passe: ");
95            sc.nextLine();
96
97
98            this.setNom(nom);
99            this.setPrenom(prenom);
100           this.setCIN(CIN);
101           this.setTel(tel);
102           this.setPassword(String.valueOf(passwordInput));
103           return this;
104       }
105
106       @Override
107       public boolean equals(Object o) {
108           if (this == o) return true;
109           if (!(o instanceof Electeur)) return false;
110           Electeur electeur = (Electeur) o;
111           return getCIN() == electeur.getCIN();
112       }
113
114       @Override
115       public int hashCode() {
116           return Objects.hash(getCIN());
117       }
118       //public Avis introduirAvid(){
119       //       return Avis;
120       //}
121   }
```

TERMINAL   PROBLEMS 93   OUTPUT   DEBUG CONSOLE

Java Process Console

```
?[H?[2J
---------------- Tunisien Election Manager ----------------
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0- Exit

choix: 
```

Ln 1, Col 1   Spaces: 8   UTF-8   CRLF   Java   JavaSE-1.8

5/ Execution screenshots

```
------------------- Tunisien Election Manager ----------------
1- sign in (Electeur)
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choix: []
```

```
Bonjour, entrer votre CIN
12345678
Donner votre mot de passe: █
```

```
----------------- Welcome Admin --------------
1- Creer un nouveau Candidat
2- Recherche Candidat by Cin
3- Delete Candidat By Cin
4- afficher les liste electoral
5- creer liste electoral
6- supprimer liste electoral
0- Logout
Choix: █
```

```
id Partie: 1
Nom Partie: el nahdha
Score Partie: 31.0
La liste des candidat:
        ["2:montasar_ben hamouda(score: 31.0)",]
------------------------

id Partie: 0
Nom Partie: hezb el 5odhr
Score Partie: 32.6
La liste des candidat:
        ["1:karim_ben hamouda(score: 16.0)","34:chiheb_ben hamouda(score: 50.0)","10:aymen_ben hamouda(score: 50.0)","11:mourad_ben hamouda(score: 31.0)","12:ahmed_ben ham
ouda(score: 16.0)",]
------------------------


Press Enter key to continue...
```

```
-------------- Creer Nouveau List Electorale --------------
saisier le Nom Partie: tajammo3
Operation avec succées

Press Enter key to continue...
```

```
            les listes Electorale disponible:              [el nahdha, tajammo3, hezb el 5odhr, ]

saisie le nom de la liste Electorale: tajammo3
la liste supprimer avec succées

Press Enter key to continue...
```

```
----------------- Welcome Aymen jlassi--------------

1- Recherche Candidat by Cin
2- afficher les liste electoral
3- introduit une note à un candidat
0- Logout

Choix: █
```

```
Saisie Cin de Candidat que vous voulez evaluer
34
donner votre Avis entre 0 et 100
65

Press Enter key to continue...
█
```

```
saisie Cin candidat a chercher: 34
CIN: 34
NOM: chiheb
PRENOM: ben hamouda
Date de Naissance: 13/1/1997
Photo Link: photo
Nom Partie: hezb el 5odhr
Facebook: facebook
Twitter: twitter
Score: 50.0
Les activié de candidat:
        Type d'activité: Politique
        durée d'activité: 60
        Support d'activité: Excel
-----------------------
        Type d'activité: Scientifique
        durée d'activité: 9384
        Support d'activité: something
-----------------------
        Type d'activité: Sociale
        durée d'activité: 9384
        Support d'activité: something
-----------------------
-------------- les Avis --------------
        Aymen jlassi: 65
        Ahmed Hamouda: 12

Press Enter key to continue...
```