CREATE TABLE voter (

voter\_id INT PRIMARY KEY,

name VARCHAR(100),

age INT,

gender VARCHAR(10),

registration\_date DATE,

valid\_start\_date DATE,

valid\_end\_date DATE

);

INSERT INTO voter VALUES(1001,'John Doe',30,'Male','2024-01-01', '2024-01-01', '2034-01-01');

INSERT INTO voter VALUES(1002, 'Jane Smith',25, 'Female', '2024-01-02', '2024-01-02', '2023-01-02');

INSERT INTO voter VALUES(1003,'Alice Johnson',45, 'Female', '2024-01-03', '2024-01-03', '2034-01-03');

INSERT INTO voter VALUES(1004,'Bob Brown',60,'Male','2024-01-04', '2024-01-04', '2024-01-04');

INSERT INTO voter VALUES(1005, 'Emily Davis',35,'Female','2024-01-05', '2024-01-05', '2023-01-05');

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import java.util.\*;

import java.sql.\*;

class Main{

public static void main(String [] args){

Scanner sc = new Scanner(System.in);

Connection conn=null;

Statement st=null;

PreparedStatement ps=null;

ResultSet rs=null;

try{

conn=DriverManager.getConnection("jdbc:mysql://localhost/ri\_db","test","test123");

int choice=sc.nextInt();

switch(choice){

case 1:{

int voter\_id =sc.nextInt();

sc.nextLine();

String name=sc.nextLine();

int age=sc.nextInt();

sc.nextLine();

if(age<18 || age>120){

System.out.println("ERROR: Age must be above 18 years and below 120 years.");

return;

}

String gender =sc.nextLine();

if(gender!="Male" || gender!="Female" || gender!= "Other"){

System.out.println("ERROR: Not a valid gender.");

return;

}

String registration\_date=sc.nextLine();

String valid\_start\_date =sc.nextLine();

String valid\_end\_date =sc.nextLine();

ps=conn.prepareStatement("INSERT INTO voter VALUES(?,?,?,?,?,?,?)");

ps.setInt(1,voter\_id);

ps.setString(2,name);

ps.setInt(3, age);

ps.setString(4,gender);

ps.setString(5, registration\_date);

ps.setString(6, valid\_start\_date);

ps.setString(7,valid\_end\_date);

ps.executeUpdate();

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter");

System.out.println("Voter added successfully.");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

//break;

}break;

case 2:{

int voter\_id =sc.nextInt();

st=conn.createStatement();

rs=st.executeQuery("SELECT age from voter where voter\_id='"+voter\_id+"'");

boolean flag=false;

if(rs.next()){

flag=true;

}

if(!flag){

System.out.println("Voter does not exists!");

return;

}

int age=sc.nextInt();

if(age<18 || age>120){

System.out.println("ERROR: age should be above 18 and below 120");

return;

}

ps=conn.prepareStatement("Update voter set age=? where voter\_id=?");

ps.setInt(2,voter\_id);

ps.setInt(1, age);

ps.executeUpdate();

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter");

System.out.println("Voter updated successfully.");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

}break;

case 3:{

int voter\_id =sc.nextInt();

st=conn.createStatement();

rs=st.executeQuery("SELECT valid\_end\_date FROM voter where voter\_id='"+voter\_id+"'");

boolean flag=false;

while(rs.next()){

flag=true;

//if(rs.getString(1)>)

}

if(!flag){

System.out.println("ERROR: Voter id does not exist");

return;

}

// rs=st.executeQuery("SELECT age FROM voter where voter\_id='"+voter\_id+"' and CURDATE() BETWEEN valid\_start\_date AND valid\_end\_date");

// while(rs.next()){

// flag=true;

// }

// if(!flag){

// System.out.println("ERROR- Voter ID is not active");

// return;

// }

ps=conn.prepareStatement("DELETE FROM voter where voter\_id=? AND CURDATE() BETWEEN valid\_start\_date and valid\_end\_date");

ps.setInt(1,voter\_id);

int abc=ps.executeUpdate();

if(abc==0){

System.out.println("Voter ID is invalid");

return;

}

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter");

System.out.println("Voter deleted successfully.");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

}break;

case 4:{

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

}break;

case 5:{

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter where CURDATE() BETWEEN valid\_start\_date AND valid\_end\_date");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

}break;

case 6:{

// int voter\_id=sc.nextInt();

int ages =sc.nextInt();

// st=conn.createStatement();

// rs=st.executeQuery("SELECT \* FROM voter where voter\_id='"+voter\_id+"'");

// boolean flag=false;

// if(rs.next()){

// flag=true;

// }

// if(!flag){

// System.out.println("Voter ID does ot exist");

// return;

// }

ps=conn.prepareStatement("DELETE FROM voter where age=? > 18 AND age<120");

ps.setInt(1,ages);

int ok=ps.executeUpdate();

if(ok==0){

System.out.println("No voters available below age.");

return;

}

st=conn.createStatement();

rs=st.executeQuery("SELECT \* FROM voter");

System.out.println("Voter deleted successfully.");

while(rs.next()){

System.out.println("ID: "+rs.getInt(1)+", Name: "+rs.getString(2)+", Age: "+rs.getInt(3)+", Gender: "+rs.getString(4)+", Registration Date: "+rs.getString(5));

}

}break;

}

}catch(SQLException e){

System.out.println("SQL Error code: "+e.getErrorCode());

System.out.println(e.getMessage());

e.printStackTrace();

}finally{

try{

conn.close();

}catch(SQLException e){

e.printStackTrace();

}

}

}

}