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Course: CS1073

Section: FR03B

Lab number: 2

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a)

Candidate 1:

Name: Mary Brown

Number of Votes: 0

Party: Conservative Party

Candidate 2:

Name: Wendy Thomas

Number of Votes: 0

Party: Green Party

Candidate 3:

Name: Ron McDonald

Number of Votes: 0

Party: Liberal Party

b)

```
/**
This class represents a candidate in an election.
@author Natalie Webber
@author Zohaib Khan 3740572
*/
public class Candidate {

    // Instance variables:
    // For each Candidate object, store their name,
    // the number of votes they have received so far,
    // and their political party.
    private String name;
    private int numVotes;
    private String party;

    // adding a new instance variable
    private String slogan;

    // The constructor creates a new Candidate object
    // and initializes the instance variables.
    public Candidate (String nameIn, String partyIn, String
sloganIn) {
        name = nameIn;
        numVotes = 0; //no votes counted yet
        party = partyIn;
        slogan = sloganIn;
    }

    // This is a method that we can call on a Candidate
    // object. (Specifically, it is an accessor method).
    // This method creates and returns a String containing
    // all of the information about the state of the object.
    public String toString () {
        return "Name: " + name + "\n"
            + "Number of Votes: " + numVotes + "\n"
            + "Party: " + party + "\n"
            + "Campaign Slogan: " + slogan + "\n";
    }

    // Adding votes method
    public void addVotes (int addByVotes) {
        numVotes = numVotes + addByVotes;
    }

} // end of Candidate class
```

c)

```
/**
 * This is an example of a driver program; its purpose is
 * to "try out" the Candidate class.
 * @author Natalie Webber
 * @author Zohaib Khan 3740572
 */

public class Election {

    public static void main (String[] args) {

        // Create a few Candidate objects:
        Candidate candidate1 =
            new Candidate ("Mary Brown", "Conservative Party", "Vote for
tomorrow");
        Candidate candidate2 =
            new Candidate ("Wendy Thomas", "Green Party", "The choice for
change");
        Candidate candidate3 =
            new Candidate ("Ron McDonald", "Liberal Party", "New Vision,
New Direction");

        // Creating a new Object:
        Candidate candidate4 =
            new Candidate ("Tim Bush", "Democratic Party", "The right man
with the right experience");

        // Adding votes to candidates:
        candidate1.addVotes(160);
        candidate2.addVotes(209);
        candidate3.addVotes(271);
        candidate2.addVotes(113);

        // Now I can print out my candidates:
        System.out.println ("Candidate 1:\n" + candidate1.toString());
        System.out.println ("Candidate 2:\n" + candidate2.toString());
        System.out.println ("Candidate 3:\n" + candidate3.toString());
        System.out.println ("Candidate 4:\n" + candidate4.toString());

    }

} // end of Election class
```

d)

Candidate 1:

Name: Mary Brown

Number of Votes: 160

Party: Conservative Party

Campaign Slogan: Vote for tomorrow

Candidate 2:

Name: Wendy Thomas

Number of Votes: 322

Party: Green Party

Campaign Slogan: The choice for change

Candidate 3:

Name: Ron McDonald

Number of Votes: 271

Party: Liberal Party

Campaign Slogan: New Vision, New Direction

Candidate 4:

Name: Tim Bush

Number of Votes: 0

Party: Democratic Party

Campaign Slogan: The right man with the right experience