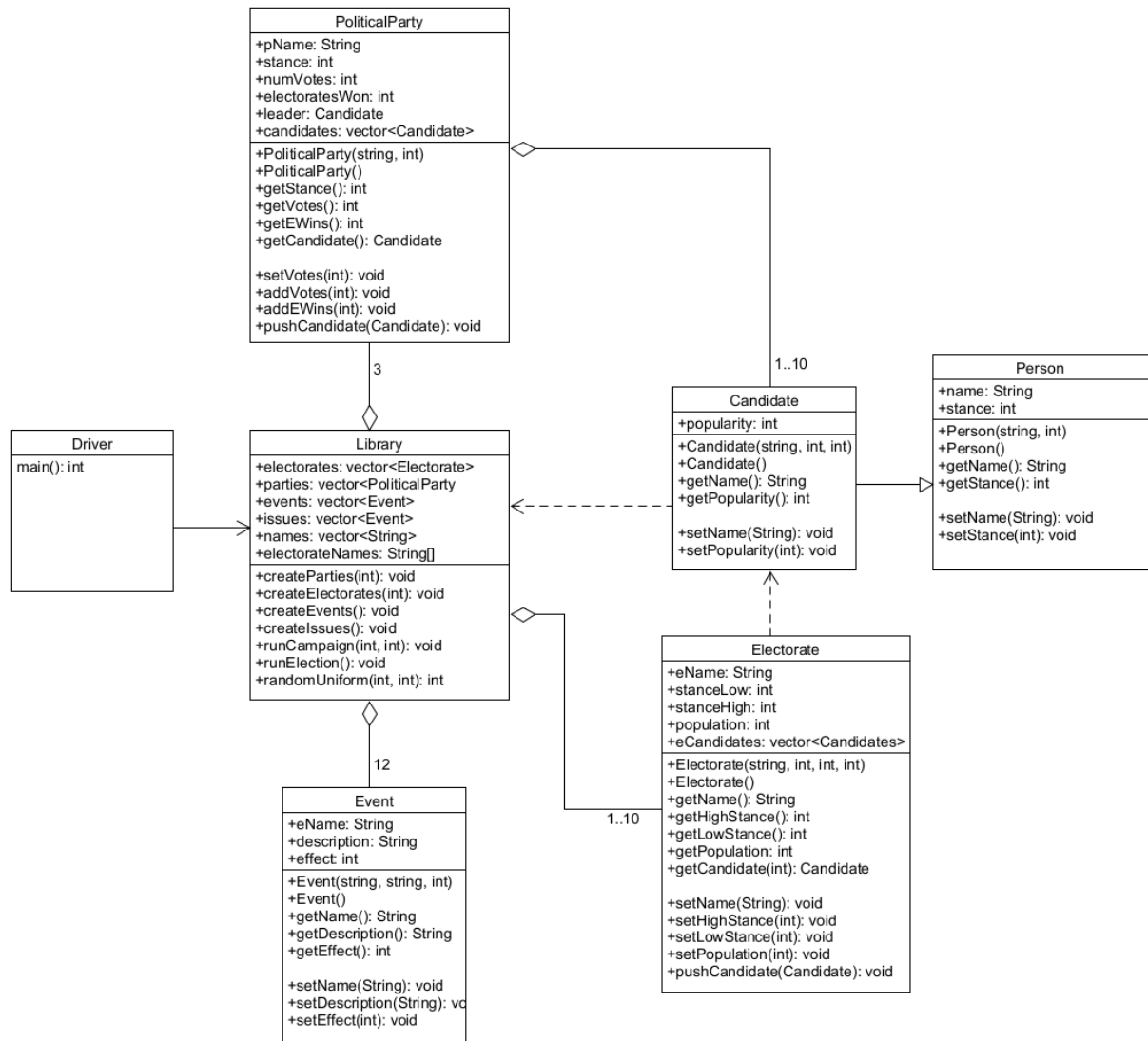Name: Idries Eagle-Masuak
Student ID: 6868288
Email: iem651@uowmail.edu.au

Compiler: GNU c++ compiler

Code to compile: g++ Driver.cpp -o RunElection Library.cpp
PoliticalParty.cpp Person.cpp Candidate.cpp Electorate.cpp Event.cpp

Code to run: ./RunElection n m

n is the amount of Electorates
m is the number of days the Campaign will last before election

PoliticalParty

+pName: String
+stance: int
+numVotes: int
+electoratesWon: int
+leader: Candidate
+candidates: vector<Candidate>

+PoliticalParty(string, int)
+PoliticalParty()
+getStance(): int
+getVotes(): int
+getEWins(): int
+getCandidate(): Candidate

+setVotes(int): void
+addVotes(int): void
+addEWins(int): void
+pushCandidate(Candidate): void

Person

+name: String
+stance: int

+Person(string, int)
+Person()
+getName(): String
+getStance(): int

+setName(String): void
+setStance(int): void

Candidate

+popularity: int

+Candidate(string, int, int)
+Candidate()
+getName(): String
+getPopularity(): int

+setName(String): void
+setPopularity(int): void

Driver

main(): int

Library

+electorates: vector<Electorate>
+parties: vector<PoliticalParty>
+events: vector<Event>
+issues: vector<Event>
+names: vector<String>
+electorateNames: String[]

+createParties(int): void
+createElectorates(int): void
+createEvents(): void
+createIssues(): void
+runCampaign(int, int): void
+runElection(): void
+randomUniform(int, int): int

Event

+eName: String
+description: String
+effect: int

+Event(string, string, int)
+Event()
+getName(): String
+getDescription(): String
+getEffect(): int

+setName(String): void
+setDescription(String): vo
+setEffect(int): void

Electorate

+eName: String
+stanceLow: int
+stanceHigh: int
+population: int
+eCandidates: vector<Candidates>

+Electorate(string, int, int, int)
+Electorate()
+getName(): String
+getHighStance(): int
+getLowStance(): int
+getPopulation: int
+getCandidate(int): Candidate

+setName(String): void
+setHighStance(int): void
+setLowStance(int): void
+setPopulation(int): void
+pushCandidate(Candidate): void

3

1..10

12

1..10

Summary

ISSUES

Each Issue has the same impact on the candidates and electorate.

Frog Invasion: Cane Toads have had an increase in population.
Nuclear War: The U.S have threatened nuclear war
Hacking: Russia has launched cyber-attacks and forced everyone's default browser to be Microsoft Edge
Economy: Australia's debt is out of control
Capital Punishment: The measure of punishment must depend upon the atrocity of the crime. Is life in prison for murder enough of a punishment?

PARTIES & CANDIDATES

The Liberal Party, Stance = 2
The Labor Party, Stance = 5
The Independent Party, Stance = 8

The party stances are an average value
The electorates are given a range value as a stance for the voters.

Each person in the electorate votes according to a randomly generated number (The stance) between the ranges of the electorate. If a candidate has a boost in popularity, they receive a boost to their vote, and if they've lost popularity, they get a hinder to their vote.

EVENTS

Each event has either a varied positive or negative impact on the popularity of the candidates and parties.
The events help boost or destroy the popularity of the candidates and parties by an amount depending on the type of event. Or even the population of the electorate.
Events include, candidates fighting, candidates helping elderly, a flood in the electorate or public holiday. They all give some change into the outcome of the election by adding or removing votes from those lucky or unfortunate enough.