Main

initializeVotingSystem() loadFiles() checkFile() displayResult()

Election

-string:type #vector < Candidate > : candidate List #int:numBallots #int:numCandidates

> +GetVotingType():string +SetVotingType(string) +GetNumBallots():int

+SetNumBallots(int) +GetNumCandidates():int

+SetNumCandidates(int)

+GetCandidateList():vector<Candidate> +PushCandidateList(Candidate)

+CoinToss(vector<int>):int

Ballot

-vector<int>:Rankings -int:nextRank

+SetVote(string):void +GetVote():vector<int> +GetRank():int +SetRank(int)

Candidate

-string:candidateName -char:partyName -int:numVotes -vector<Ballot>:ballotList -bool:eliminated

+SetName(string)

+GetName():string

+SetPartyName(char)

+GetPartyName():char

+SetNumVotes(int):

+GetNumVotes():int

+BallotListPop():Ballot

+BallotListPush(Ballot)

+GetBallotList():vector<Ballot>

+SetCandidateEliminated(bool) +GetCandidateEliminated():bool

-vector<Candidate> independent;

OPL

-int:numSeats

-int:quota

-int:repVotes

-int:demVotes

-int:indVotes

-vector<int> firstSeats:

-vector<int> remainingVotes;

-vector<int> secondSeats;

-vector<Candidate> republicans:

-vector<Candidate> democrats:

-vector<Candidate>:winners

+GetList(char):vector<Candidate>

+PushList(char, Candidate)

+GetNumSeats():int

+SetNumSeats(int)

+CalculateQuota(int, int)

+getFirstSeats():vector<int>

+setFirstSeats(vector<int>)

+getRemainingVotes():vector<int>

+setRemainingVotes(vector<int>) +getSecondSeats():vector<int>

+setSecondSeats(vector<int>)

+CalculateSeatAllocation(vector<int>, int):vector<int> +CountVote(vector < Candidate > candidateList, int numBallots)

IR

-Candidate:winner

-Candidate:loser

-vecotr<vector<int>>transferVotes

+SetWinner(Candidate)

+GetWinner():Candidate

+SetLoser(Candidate)

+GetLoser():Candidate

+CountVote(vector < Candidate >)

+GetTransferVotes():vector<vector<int>>

+TransferVote(Candidate, vector<Candidate>):int