

Project 1 (Part B) – CandidateType Class

From now on, if you are a member of a team, you **must** work with the **same** team members.

A **CandidateType** defines a candidate that runs for the presidential election of the student council at your college. Your college has four major divisions, and each division manages its own voting process. You will need to implement the **CandidateType** class that **inherits** from the **PersonType** class.

NOTE: The **CandidateType** class **inherits** from the **PersonType** class; therefore, **MAKE SURE** you implement your code **efficiently** by re-using the functions that are already available in the **PersonType**.

CandidateType Class	
Global constant	Declare a global constant integer , right <i>before</i> the class definition, to store the number of divisions, 4. Name your constant: NUM_OF_DIVISIONS
Member variables	<ul style="list-style-type: none">• An integer that stores the total number of votes.• An array of integers that has capacity NUM_OF_DIVISIONS. <p>The division will be labeled by numbers (i.e., Computer Science = 1, Mathematics = 2, and so on), where 1 corresponds to index 0 of the array, 2 corresponds to index 1 of the array, etc.</p>
Default constructor	Initializes the total number of votes to 0. Initializes all the array elements to 0.
Function updateVotesByDivision	Parameters: The division number and the number of votes for that division. Updates the total number of votes and the number of votes for the division specified.
Function getTotalVotes	Returns the total number of votes.
Function getVotesByDivision	Parameter: The division number. Returns the votes for the specified division.
Function printCandidateInfo	Prints information about the candidate in the following format: ###-##-#### - Lastname, Firstname Note that “#” should be replaced with integers.

Function printCandidateTotalVotes	<p>Prints the candidate's total votes in the following format:</p> <pre>Lastname, Firstname => Total Votes (all divisions): ##</pre> <p>Note that “#” should be replaced with an integer.</p>
Function printCandidateDivisionVotes	<p>Parameters: The division number. Prints the candidate's votes for the specified division:</p> <pre>Lastname, Firstname => Division # total votes: ##</pre> <p>Note that “#” should be replaced with an integer.</p>
Destructor	(empty)

Make sure you consider when to:

- Pass by **reference**
- Use a **const** modifier for your parameter
- Use a **const** modifier for your function

The given **Main.cpp** file will produce the **output** displayed on next page.

```
=====
TEST: default constructor...

No information available for this candidate.

=====
TEST: setPersonInfo...

111-66-3333 - Peterson, Bob

=====
TEST: updateVotesByDivision...
TEST: getTotalVotes...

Total votes: 77

=====
TEST: getVotesByDivision...

Votes Division 1: 10
Votes Division 2: 22
Votes Division 3: 45
Votes Division 4: 0

=====
TEST: printCandidateInfo...

111-66-3333 - Peterson, Bob

=====
TEST: printCandidateTotalVotes...

Peterson, Bob
=> Total Votes (all divisions): 77

=====
TEST: printCandidateDivisionVotes...

Peterson, Bob
    => Division 1 total votes: 10

Peterson, Bob
    => Division 2 total votes: 22

Peterson, Bob
    => Division 3 total votes: 45

Peterson, Bob
    => Division 4 total votes: 0

Press any key to continue . . .
```