

Assessment Instructions

Instructions: For this assessment, you are going to create insertion methods.

1. Create a folder called **Assessment** in your Unit 6 assessments folder.
2. Copy your **TestCandidate3.java** to a new class **TestCandidate5.java**.
3. Create the following methods for inserting election results:
 - a. Create a method that will find a particular candidate by position in the election array. Your method will then add a new candidate before that position. Call it **insertPosition()**. Its arguments should include the array, a position to insert, the name to add, and the votes to add.
 - b. Create a method that will find a particular candidate by name and then insert a new candidate before that candidate. Call it **insertCandidate()**. Its arguments should include the array, a name to find, and the candidate and votes to insert.
 - c. Test your methods by first adding Mickey Duck, 14,000 votes in position 5, and then add Donald Mouse, 100 votes, before Kathleen Turner. You should call **printResults()** first and then after each insert. Your output should be similar to output shown below. Remember to turn on unlimited buffering in BlueJ, so that you can see the results.

BlueJ: Terminal Window - demo

Options

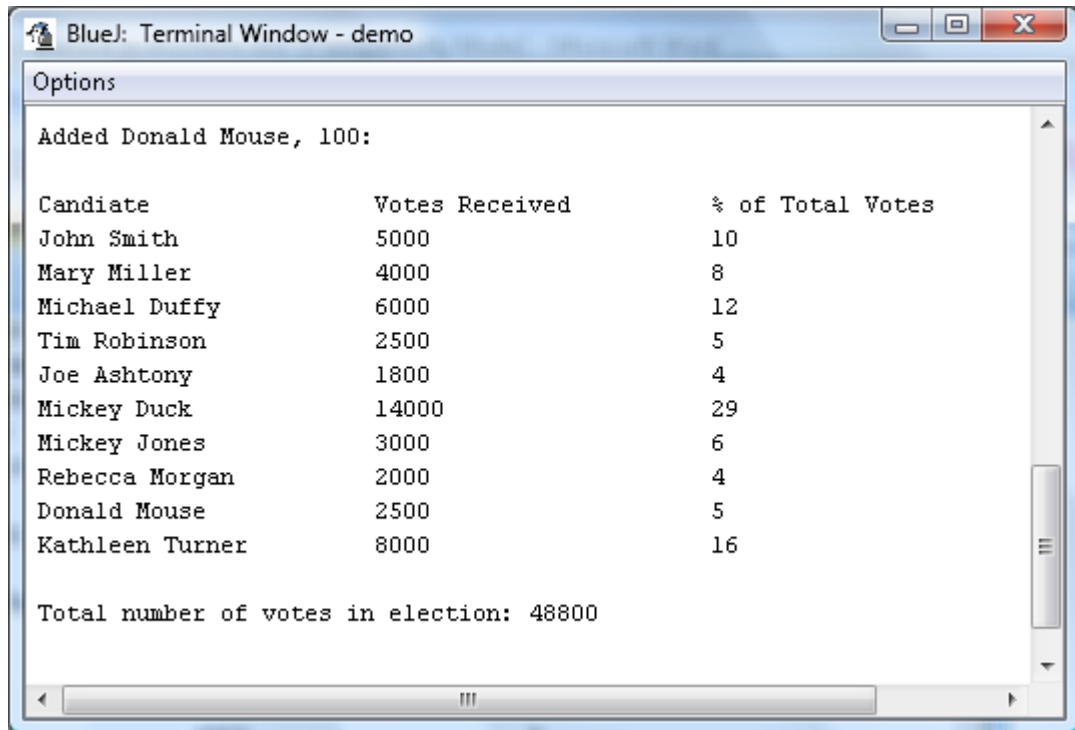
Original results:

| Candidate | Votes Received | % of Total Votes |
|-----------------|----------------|------------------|
| John Smith | 5000 | 12 |
| Mary Miller | 4000 | 9 |
| Michael Duffy | 6000 | 14 |
| Tim Robinson | 2500 | 6 |
| Joe Ashtony | 1800 | 4 |
| Mickey Jones | 3000 | 7 |
| Rebecca Morgan | 2000 | 5 |
| Kathleen Turner | 8000 | 19 |
| Tory Parker | 500 | 1 |
| Ashton Davis | 10000 | 23 |

Total number of votes in election: 42800

Added Mickey Duck, 14000 votes:

| Candidate | Votes Received | % of Total Votes |
|-----------------|----------------|------------------|
| John Smith | 5000 | 11 |
| Mary Miller | 4000 | 9 |
| Michael Duffy | 6000 | 13 |
| Tim Robinson | 2500 | 5 |
| Joe Ashtony | 1800 | 4 |
| Mickey Duck | 14000 | 30 |
| Mickey Jones | 3000 | 6 |
| Rebecca Morgan | 2000 | 4 |
| Kathleen Turner | 8000 | 17 |
| Tory Parker | 500 | 1 |



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BlueJ: Terminal Window - demo
Options
Added Donald Mouse, 100:

Candidate          Votes Received    % of Total Votes
John Smith         5000              10
Mary Miller        4000              8
Michael Duffy      6000              12
Tim Robinson       2500              5
Joe Ashtony        1800              4
Mickey Duck        14000             29
Mickey Jones       3000              6
Rebecca Morgan     2000              4
Donald Mouse       2500              5
Kathleen Turner    8000              16

Total number of votes in election: 48800
```

4. Now create a class **TestCandidate6** and save it as **TestCandidate6.java**.
 - a. Create the same items as for **TestCandidate5**; however, use an **ArrayList** instead.
 - b. Output should look like that below.

| | | |
|--|----------------|------------------|
| Options | | |
| Original results: | | |
| Candidate | Votes Received | % of Total Votes |
| John Smith | 5000 | 12 |
| Mary Miller | 4000 | 9 |
| Michael Duffy | 6000 | 14 |
| Tim Robinson | 2500 | 6 |
| Joe Ashtony | 1800 | 4 |
| Mickey Jones | 3000 | 7 |
| Rebecca Morgan | 2000 | 5 |
| Kathleen Turner | 8000 | 19 |
| Tory Parker | 500 | 1 |
| Ashton Davis | 10000 | 23 |
| Total number of votes in election: 42800 | | |
| Added Mickey Duck, 14000 votes: | | |
| Candidate | Votes Received | % of Total Votes |
| John Smith | 5000 | 9 |
| Mary Miller | 4000 | 7 |
| Michael Duffy | 6000 | 11 |
| Tim Robinson | 2500 | 4 |
| Joe Ashtony | 1800 | 3 |
| Mickey Duck | 14000 | 25 |
| Mickey Jones | 3000 | 5 |
| Rebecca Morgan | 2000 | 4 |
| Kathleen Turner | 8000 | 14 |
| Tory Parker | 500 | 1 |
| Ashton Davis | 10000 | 18 |
| Total number of votes in election: 56800 | | |

