

Instructions:

1. Prepare 1/8 sheet of paper. Write your name on it.
This paper will be used to write your score after checking your work.
2. In 2 hours, create an Assembly Language program that simulates a **FAVORITE CLASSMATE VOTING SYSTEM** app. See sample run output below.
3. Use a clear screen routine to repeatedly display the Main Menu and ask for user input until the user chooses to exit the program.
4. Perform error trappings, such as checking if the user enters an invalid character from the main menu.
5. You may use any background color.
6. You may refer to your past exercises for code reference.
7. No talking with your classmate.
8. Include as comments at top of code the following:
 - a. Filename: FINAL.ASM
 - b. CS243 Lab Hands-on Final Exam
 - c. First Semester SY 2024-2025
 - d. Student Name: YOUR FULL NAME
 - e. Date Finished: Date Today
9. Filename: **FINAL.ASM**
10. After checking, upload your .ASM file to the assignment posting of the exam and turn it in.

SAMPLE RUN

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

MAIN MENU
1. Vote
2. View
3. Update
4. Delete
5. Exit
Enter choice: 1
```

// clear screen. "Vote" adds one candidate at a time.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

Vote
Enter candidate name: Jose Rizal
Enter vote rating (0-100): 50

Press any key to go back to Main Menu...
```

// clear screen

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

MAIN MENU
1. Vote
2. View
3. Update
4. Delete
5. Exit
Enter choice: 2
```

// clear screen. "View" displays all candidates.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

View

1. Jose Rizal - 50

Press any key to go back to Main Menu...

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

MAIN MENU

- 1. Vote
- 2. View
- 3. Update
- 4. Delete
- 5. Exit

Enter choice: 3

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

Update

1. Jose Rizal - 50

Enter record number to update: 1

Enter new candidate name: Andres Bonifacio

Enter new vote rating (0-100): 98

Press any key to go back to Main Menu...

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

View

1. Andres Bonifacio - 98

Press any key to go back to Main Menu...

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

MAIN MENU

- 1. Vote
- 2. View
- 3. Update
- 4. Delete
- 5. Exit

Enter choice: 4

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

Delete

1. Andres Bonifacio - 98

Enter record number to delete: 1

Record deleted.

Press any key to go back to Main Menu...

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

View

No record found.

Press any key to go back to Main Menu...

// clear screen.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

MAIN MENU

- 1. **Vote**
- 2. **View**
- 3. **Update**
- 4. **Delete**
- 5. Exit

Enter choice: 5

Exiting...

Thank you for using Favorite Classmate Voting System.

TEST CASES - Perform all the Test Cases below. Minus 5 points for every mistake.

- 1. Test Case No. 1 - 25 points
Correct display of Main Menu.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

MAIN MENU
1. Vote
2. View
3. Update
4. Delete
5. Exit
Enter choice:
```

Correct display of Exit operation.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

MAIN MENU
1. Vote
2. View
3. Update
4. Delete
5. Exit
Enter choice: 5

Exiting...
Thank you for using Favorite Classmate Voting
System.
```

2. Test Case No. 2 - 25 points
Input the following candidates into the Voting System

No.	Candidate Name	Vote Rating
1	Peter Parker	50
2	Bruce Wayne	75
3	Clark Kent	100
4	Diana Prince	10
5	Bruce Banner	90

When you choose **View**, the 5 candidates must be correctly displayed.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

View
1. Peter Parker - 50
2. Bruce Wayne - 75
3. Clark Kent - 100
4. Diana Prince - 10
5. Bruce Banner - 90

Press any key to go back to Main Menu...
```

3. Test Case No. 3 - 25 points

Update the following records.

No.	Candidate Name	New Vote Rating
1	Peter Parker	89
3	Clark Kent	45
5	Bruce Banner	63

When you choose **View**, the 5 candidates must be correctly displayed.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

View
1. Peter Parker - 89
2. Bruce Wayne - 75
3. Clark Kent - 45
4. Diana Prince - 10
5. Bruce Banner - 63

Press any key to go back to Main Menu...
```


4. Test Case No. 4 - 25 points
Delete the following candidates from the Voting System

No.	Candidate Name	Vote Rating
2	Bruce Wayne	75
4	Diana Prince	10

When you choose **View**, only the 3 remaining candidates must be correctly displayed.

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE

View
1. Peter Parker - 50
2. Clark Kent - 100
3. Bruce Banner - 90

Press any key to go back to Main Menu...
```

5. Other Point Deductions:
- 1) Minus 5 points per missing or wrong line at the start of the program run:

```
Cebu Institute of Technology - University
College of Computer Studies
FAVORITE CLASSMATE VOTING SYSTEM
Programmer: DISPLAY YOUR FULL NAME HERE
```

- 2) Minus 5 points per missing or wrong comment line at the start of the program code:
- a. Filename: FINAL.ASM
 - b. CS243 Lab Hands-on Final Exam
 - c. First Semester SY 2024-2025
 - d. Student Name: YOUR FULL NAME
 - e. Date Finished: Date Today
- 3) Minus 5 points per line - Missing background color when program is run.
- 4) Minus 10 points - Wrong Filename

Cebu Institute of Technology - University
CS243 Computer Organization and Architecture
1st Semester SY 2024-2025
Instructor: Mr. Roden Jurado Ugang
LABORATORY HANDS-ON FINAL EXAM (Assembly Language Programming)
100 POINTS

5) Minus 5 points for every wrong output line when
program is run.

=====NOTHING FOLLOWS=====