



Mindanao State University - Iligan Institute of Technology  
School of Computer Studies  
Department of Computer Science  
Iligan City

CSC 181  
Introduction to Software Engineering  
Final Exam

ID No: \_\_\_\_\_  
Name: \_\_\_\_\_

Date: \_\_\_\_\_

The Populars

Once in a year, SBA-AMG network will conduct a survey for the most popular employee in their organization. They will select from among top 5 performing employees and hand-out a ballot to the rest of the employees for them to cast votes. With the advent of web technologies, SBA-AMG thought that it would be better if the search for the popular employees will be conducted online. The network then approached you to develop a web based application to replace the manual casting of votes with an automated one. The automated will require each employee to maintain a voter's ID to be given by the network top executives. So, before anybody can vote they must get the voter's ID first.

Things to do:

1.

Tasks	Priority No	Commit Message	Weight (in mins)
1. Write the database code to create a table to contain the entries of the top 5 employees.	1	[NEW!] DB Tablefor Top 5 Employees	5
2. Write a stored Procedure to insert a new top employee record to the Table.  Business Rule: Only one entry for employee per year.	2	[NEW!] SP for adding new top employee entry.	7
3. Write a stored Procedure to update the top employee record.	3	[NEW!] SP for updating top employee entry.	3
4. Write the database code that will create a table to contain the number of votes for the popular employee in a year	1	[NEW!] DB Table for vote counter.	3
5. Write a Stored Procedure to insert a new entry to the vote counter table.	2	[NEW!] SP for inserting a candidate.	2

6. Write a Stored Procedure to increase/decrease the vote count of the popular employee for that year. And record the vote of the employee.  Business Rule: 1. Only one vote can be casted for the voting employee in a year.	3	[NEW!] SP for manipulating vote counts.	6
7. Write the database code that will create a table to contain an entry for each employee after they casted their vote.	1	[NEW!] DB table for Vote Log.	4
8. Initialize a Flask API Script	4	[NEW!] Working with API.	1
9. Write a route in Flask named employee to handle Insert Operations.	5	[NEW!] API to insert popular employee.	2
10. Write a route in Flask named employee to handle update operations.	6	[NEW!] API to Update popular employee	2
11. Write a route in Flask named employee that will return the details of the popular employee and the vote count.	7	[NEW!] API to Retrieve popular employee with vote count.	6
12. Write a route in Flask named vote that will increase the vote count of the popular employee and record the vote log.	5	[NEW!] API to accept votes.	5
13. Write a route in Flask named vote that will decrease the vote count of the popular employee and remove the vote log.	6	[NEW!] API to remove votes.	5
14. Write a route in Flask named report that will return the list of popular employees and the corresponding votes for the year.	7	[NEW!] API for vote reports.	6
15. Initialize the UI with the needed files.	8	[NEW!] UI initialization.	2

16. Design the UI for inserting new popular employee given a year.	9	[NEW!] UI for popular employee interaction.	5
17. Bind a button to do AJAX call for inserting popular employee.	10	[NEW!] AJAX bind for inserting popular employee.	6
18. Bind another button to do AJAX call for updating details of popular Employee	11	[NEW!] AJAX bind for updating popular employee details.	6
19. Design UI for voting a popular employee	9	[NEW!] UI for voting.	4
20. Bind a button to do AJAX call for voting.	10	[NEW!] AJAX bind for voting the popular employee.	4
21. Bind a button to un-vote a popular employee	11	[NEW!] AJAX bind for un-voting the popular employee	4
22. Design UI for the vote results.	9	[NEW!] UI for vote results.	2
23. Bind a button to retrieve the results.	10	[NEW!] AJAX bind to display the results.	3
24. Integrate the system	12		0

- 2. Write PERT Chart derived from the task table.
- 3. List the states that are in the critical path.
- 4. List the states that are next in the critical path.
- 5. What is the total hours of the project?
- 6. Write a resource table with API operations, expected parameters, and the output format.
- 7. Following the task table, develop the automated voting system.

