**CWA TARGET CALCULTOR ALGORITHM**

CWA TARGET APP DEVELOPMENT PROJECT

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Take Inputs

Verification of Inputs

Input does not meet criteria

Input meets criteria

Display of Input summary for User confirmation

Display of results

Inputs confirmed

Calculations

Edit Inputs

Redo

Edit Inputs

Exit Mode

DETAILED EXPLANATION OF ALORITHM DIAGRAM

1. **DISCLAIMER:** The computations and results are based on the user’s inputs. Therefore, any wrong input as a result of misinterpreting the questions or being deliberate shall not be our doing. Use the help button if questions are unclear to you.
2. **TAKE INPUTS:**

The user would be asked for four set of data concerning his/her current academic status. These are;

* What is your CWA TARGET for this semester?

This question requires the user to state any value within the range of 0 to 100 round up to 2 decimal places. [Verification: 0.00 <= value (float) <=100.00]

* What is your currently known CWA?

This User is expected to input only his/her current academic CWA as approved by the school. [Verification: 0.00 < value (float) < 100.00]

* What is your cumulative credit hour that accounts for you current CWA?

The user is asked to input the sum of all his semester credit hours excluding the current semester or just ended semester if the results for that semester has not been released. [Verification: 14 < value (Int) <200]

* What are your total credit hours for the semester?

This require the user to input the credit hours for the semester in which he/she is making projects for. It could be the just ended semester or their current semester.

[Verification: 15 <= value (Int) = <25]

1. **VERIFICATION OF INPUTS:**

Each input would be verified before he/she is allowed to make the next input. The verification is specified with the explanations of the questions.

1. **DISPLAY OF INPUT SUMMARY FOR USER VERIFICATION:**

All the inputs entered is displayed on the screen for the user to confirm or edit the values entered.

Example:

DATA SUMMARY

CWA TARGET: 77.01

CURRENT CWA: 75.32

CUMULATIVE CREDITS: 75

SEMESTER CREDITS: 21

If the user confirms the inputs the computations proceed else allow user to edit values as desired but within the criteria as specified in the verification process.

1. **EDITTING INPUTS:**

The user is allowed to edit specific inputs whiles the other values holds true. The new values must be verified as well.

1. **CALCULTIONS:**

CWA TARGET alias CT

CURRENT CWA alias CC

CUMULATIVE CREDIT HOURS alias CCH

SEMESTER CREDITS HOURS alias SCH

The computer would perform five main calculations which includes:

* Minimum Score to reach your target:

If 0.00 <= mini score (float) <= 100.00 then the target is achievable.

If mini score > 100.00 then the target is unachievable with a semester.

* Mid Sem score:
* End of Sem score:
* Maximum CWA:

The above computations indicate the maximum CWA the user could make if he/she score 100% in all course.

* Minimum CWA:

The above computations indicate the maximum CWA the user could make if he/she score 40% in all course, thus without any trails.

1. **DISPLAY OF RESULTS:**

* The minimum score required per course to achieve once own CWA target is would be displayed with a motivational messaged attached to it. If the minimum score exceeds 100% then the said target is unattainable within the that semester.
* A further breakdown would be included which entails the Mid and End of semester result required to achieve your minimum score.
* Lastly, the display of the maximum CWA on can make if he/she scores 100% per course and the minimum he/she could make if they score 40% thus without any trials.

1. **REDO / EDIT / EXIT MODE:**

* The user is allowed to **Redo** the enter process, thus start all over.
* The user also has the option to **Edit** the already exiting details whiles the others hold true for adjustments.
* **Exit Mode** closes the session on CWA target calculation while it returns to the main interface.

SAMPLED DATA ENTRES TO TEST THE PROGRAM

NB: All calculations are done manually and cross-checked.

***GENERAL CASE:***

DATA SUMMARY

CWA TARGET: 77.01

CURRENT CWA: 75.32

CUMULATIVE CREDITS: 75

SEMESTER CREDITS: 21

Calculations

***SPECIAL CASE 1 (LOWER CWA TARGET):***

DATA SUMMARY

CWA TARGET: 73.01

CURRENT CWA: 75.32

CUMULATIVE CREDITS: 75

SEMESTER CREDITS: 21

Calculations

***SPECIAL CASE 2 (WITH A TRIAL):***

DATA SUMMARY

CWA TARGET: 77.01

CURRENT CWA: 75.32

CUMULATIVE CREDITS: 75 + two trailed credits (3 + 2) = 80

SEMESTER CREDITS: 21

Calculations

NB: The cumulative credits hours indicated on your results slip would already account for your tailed courses.

***SPECIAL CASE 3 (WITH TOO HIGH CWA TARGET):***

DATA SUMMARY

CWA TARGET: 85.00

CURRENT CWA: 75.32

CUMULATIVE CREDITS: 75

SEMESTER CREDITS: 21

Calculations

Last Date Modified: 23 August 2022