SECURE PROGRAMMING WITH C
UE19CS257C

TEAM MEMBERS

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PROJECT TITLE

A mini employee leave management system

- We need to have the employee details in a file, allow the employee to log in using his employee ID (which is unique)
- allow employees to avail a certain number of leaves per year (which is split into x casual leaves, y medical leaves and z earned leaves)
- if the employee is well within the allowed limits, automatically approve the leave; else reject and provide the reason.

Compiler used - GNU GCC

STATIC ANALYSIS TOOL EMPLOYED-SPLINT

We are trying to implement the concept of POPULATING A
STRUCTURE BY READING A FILE

The code has :

- void main2( ) :

this contains the main part of the code workings, its
purpose is explained below just before the function

- void final_print( ) :

prints the details of the user on quitting the wizard

- void quit( ) :

this is function which handles the termination of code prompting
the user to take another trail/attempt to login

- void again( ) :

this function handles the login if user wishes to take another leave

- void table(charfile_n[ ]) :

populating the structure from data elements from the file by using
specific delimiter

- int login( ) :

this function verifies the password with the one present in the file
database

Data-Flow Diagram:

The following diagram represents the sequence of function calls and execution
flow of the pseudo-code.

MAIN( )

CALL → **MAIN2( )**

CALLS TABLE( ) TO POPULATE STRUCTURE → **TABLE( )**

MAIN HANDLER

MAIN2( ) — CALLS → **LOGIN( )**

AFTER VALIDATION OF I/P → **DEDUCTION( )**

HOLIDAYS ARE DEDUCTED

LOGIN( )

IF FAILED → **AGAIN( )**

IF SUCCESS →

I/P AND VALIDATION OF I/P TAKES PLACE

DEDUCTION( )

IS CALLED AND

IF FAILED →

PRINT EXHUASTED HOLIDAYS AND UPDATE

IF SUCCESS PRINT AND CALL → **AGAIN( )**

WHEN **AGAIN( )** IS CALLED

POINTS TO SEARCH AGAIN AND CALLS **MAIN2( )** OR CALLS **QUIT( )**

PROMPTS TO CONFIRM EXIT

IF YES

IF NO →

CALLS PRINT( ) AND PRINTS THE FINAL DETAILS