# Exam center assignment application

GROUP 2

https://github.com/hagarg123/examcentere

# DAY WISE WORK DISTRIBUTION

# Day 1

- Received the project document and spent time understanding the functional and non-functional requirements of our project.
- Discussed over the working of the program by deciding which data structure to use and the functions we will need to make.
- Divided tasks among team members and started working on them.
- Created the RTM document and updated progress in it.
- Started working on the SRS document file for the project.
- Created input files for our application viz. examcenters.txt, candidate1.txt, candidate2.txt.

# Day 2

- Discussed about the current progress of the application and jotted down changes.
- Started working on the DFD level 0 and level 1 diagram.
- Spent time analyzing the working of our program and updating the flow.
- Next, created the final flow diagram document.
- Finally, created the pseudocode file which has the basic working of the application in layman terms for easy understanding.

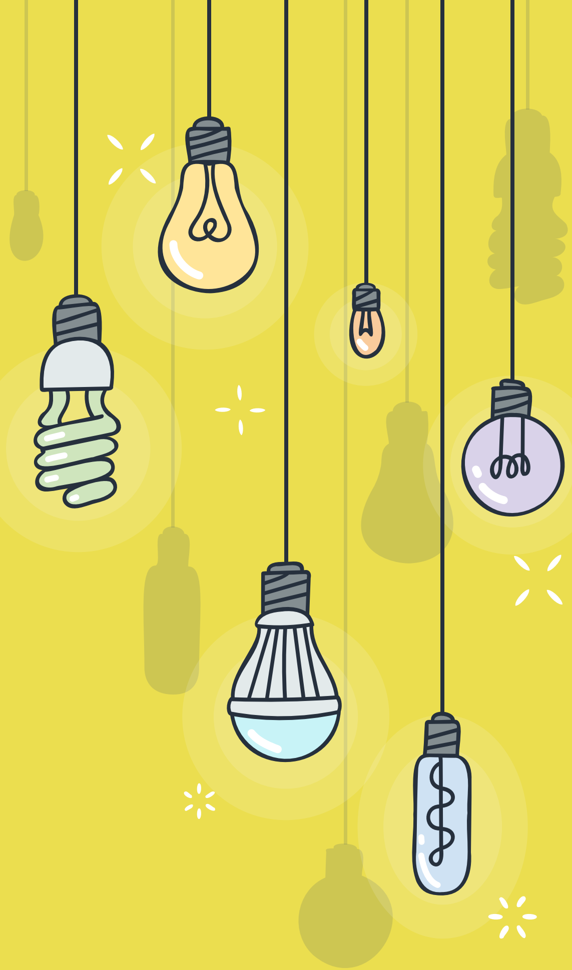
# Day 3

- Started the coding part for the application.
- Finally decided to use the data structure linked list to implement the program.
- Created structures for the exam centers data and the candidates data.
- Finalized the functions and started creating them.
- Made functions maintaining the standard coding guidelines.
- Adhered to use dynamic memory allocation and multithreading concepts.

# Day 4

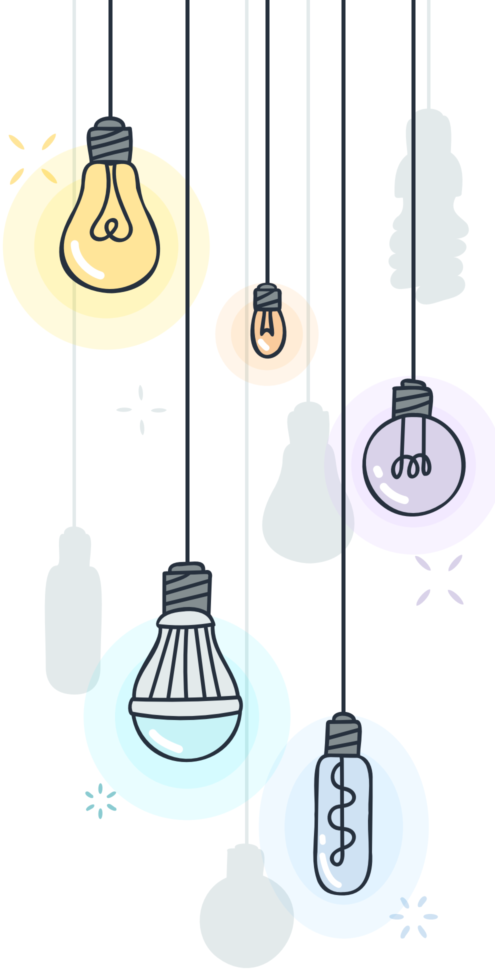
- Started unit testing and Integration testing.
- Used valgrind tool to detect memory leaks.
- Finalizing the RTM, SRS doc, IT_UT file and uploading their PDF format on GitHub.
- Uploading the final version of the code on GitHub and ensuring all files are present.

# FUNCTIONS USED….



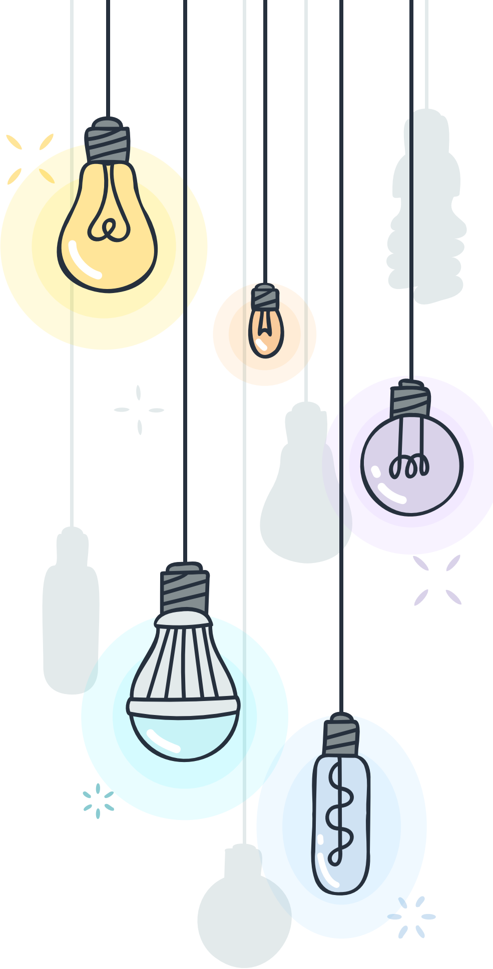
# insertExamData()

- This function is the first function to be called when the application is called.
- It parses the exam center data from the text file for details like exam centre number, examID, college and address.
- It stores this data in a linked list "struct exam center" ready for further processing.



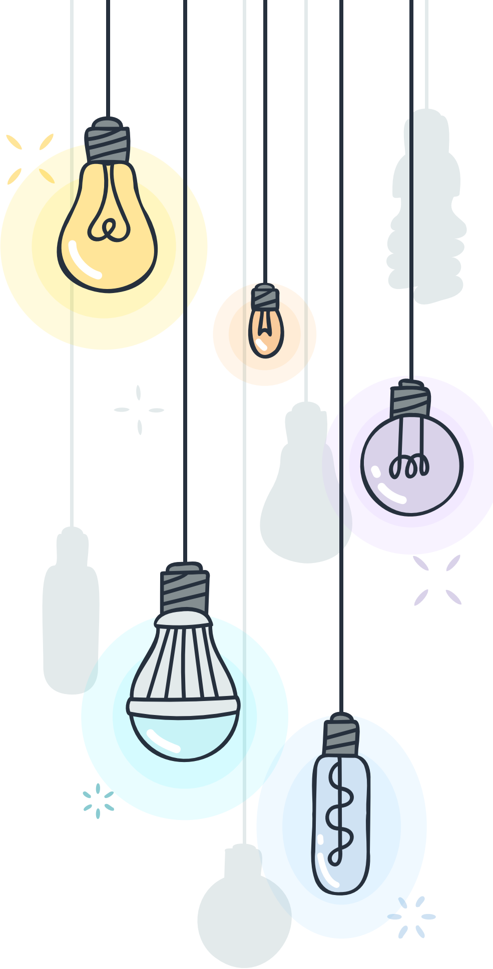
# processing_data()

- This is the next important function called when the application is in execution.
- It parses the candidate details from the multiple text file for details like Candidate ID,Name,Exam ID,Start date,End Date.
- Now this function inside calls another “insertcandidatedata” func, which validates each entry from the candidate files to store "struct candidate" data in a linked list and returns 1 or 0 on success and failure.
- Finally this func prints all the Invalid candidates with their ids.



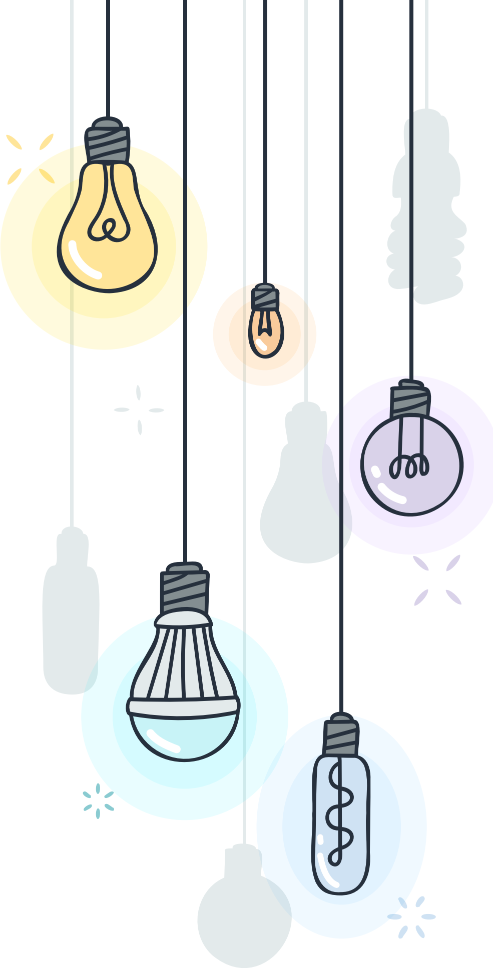
# insertCandidateData()

- This function is used to insert candidate data while parsing it for the different fields.
- It checks each entry for a valid condition and then stores this data in a linked list "struct candidate".
- We have used a mutex lock to lock the matched exam center until it is assigned to candidates giving that particular exam.
- We have used file handling to store the invalid entries in a file called "invalidcandidates.txt".



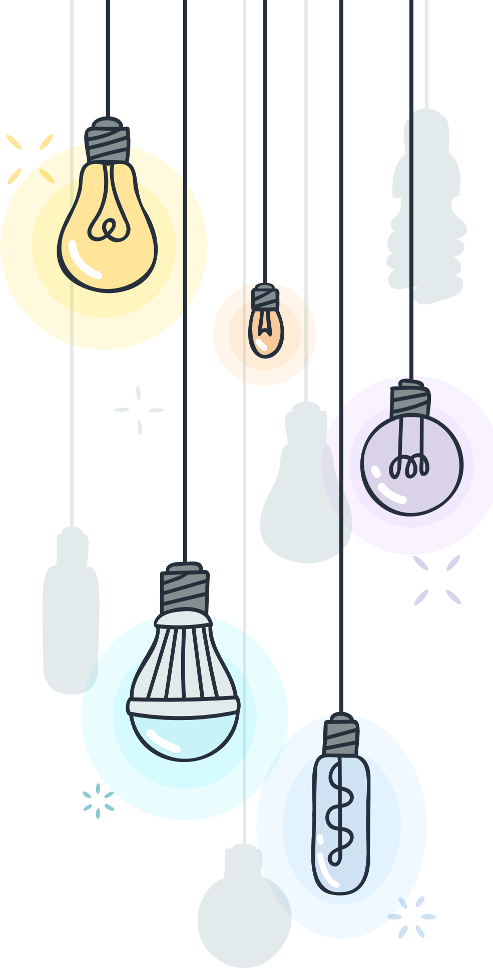
# writeToFile()

- This function is used to assign the candidates their exam hall and save the file.
- It checks the values of the linked lists, which store only valid entries and then allocates the students their exam hall.
- We create a file for each exam hall that saves the candidate details of that exam center in the particular file.
- This will help the exam admin controller and the exam candidates to search for their required information easily .

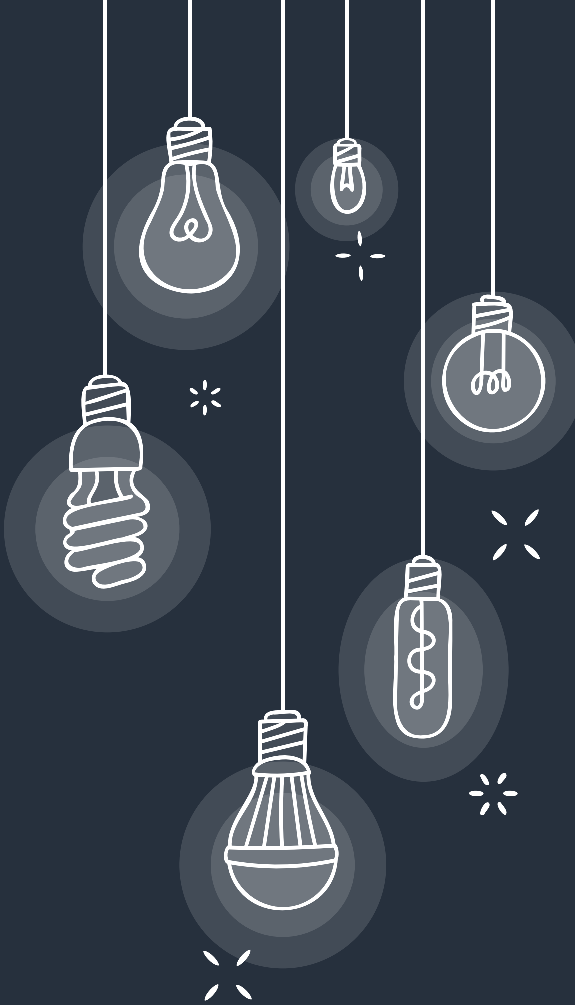


# printHallTicket()

- This function prints the hall ticket when the user enters the candidate ID.
- If the candidate has entered the correct credentials then they will get their hall ticket which has all the details about their exam and exam center.
- If not, then their details will be stored in the "invalid candidates.txt" file.



# Thanks!



# “ GROUP MEMBERS:-

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