Faculty of Engineering

Computer Department

"Operating Systems"

"BASH Simple Game"

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<u>The Scientist Thief</u>

- This Game is talking about a mad chemistry scientist who know about the new jewelry museum which the president is owning it in his country so he decided to go and see it after he saw the big diamond he decided to steal it as he want it to do some experiments because this diamond is a heavy, precise, rare and old diamond so he want us to help him in this hard mission.
- In the game we will face the guards and we must escape from them as not to be under arrest and many other obstacles you will find it in our game.
- The game has no winning scenario but has a chances and every time you lose it will decrease from your performance no one will lose but we will pick the best thief so try hard not to lose in any step.
- Every time you lose you have three options to try again, restart the game and end the game.
- And if you pick any option that is not displayed in the game you have only three chances to enter any option from the option displayed or after the three chances the game will end itself.

Code Description

- ## Arrays:

    I used the arrays for printing, as I stored in it the options the user will pick one of them so I used seven arrays as the game have seven scenarios.

- ## Functions:

    I used nine functions six functions for try again, one for end game, one calculates and one for printing.

    - ○ **TryAgain:** It's a function I called it every time the user loses and choose to try again.
    - ○ **End_Game:** It's a function I called when the user loses or succeed and he want to end the game it simply crushes the program and break all the loops to reach the end of the program.
    - ○ **Calculate:** This function is used to count how many times the user lost or how many times the user chooses the wrong option in the scenario.
    - ○ **Print:** This function is used to print the user's performance in the game according to how many times the user lost in the game.

- ## Files:

    I used the file name progress to record after each game the user plays how many times the user lost in the game and the time of the game and the date as to be a record for him to improve his performance.

- **For:**

    It is for loops as we know so I used it for looping on the game as the user can play free to try again if he lost.

- **Variables:**

    I used variables for counting how many times the user lost, for flags as to tell the code when to enter or when to leave and for counting the trials if the user entered an option that is not found in the menu displayed in the game.

- **In/out commands "echo, print, read":**

    Is for printing (echo) and (print) a result or the menu

    Is for taking the input from the user (read) as to make the code flexible to be used by a use's hand.