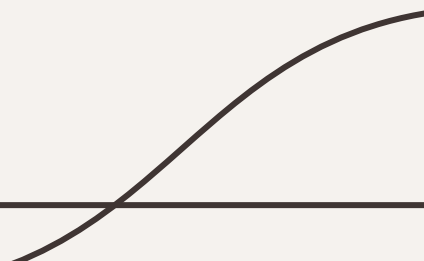# THE JDM MARQUEE GAME

By Bilal Hussain & Iddi Munkaila

OBJECTIVES

- CREATE A CODE THAT INCLUDES:

- AN ANIMATED MARQUEE DISPLAY INCORPORATED WITH SLEEP()

- ANIMATION DIRECTIONS SHOULD CHANGE BASED ON USER DEFINED KEYS

- THE CODE SHOULD INCLUDE A KEY FROM WHICH A PROGRAM TERMINATES

- INCLUDE A WHILE LOOP, AS WELL AS GETUSERINPUT

TABLE OF CONTENTS

KEY LIBRARIES

- <STDIO.H>

- <CONIO.H>

- <STRING.H>

- <WINDOWS.H>

FUNCTIONS - I

```
void Init()
 {
    printf("=== Welcome to the JDM Marquee Game ===\n");
    printf("Press 'l' to move left, 'r' to move right, any key for a new line, 'e' to exit.\n");
}
```

- PURPOSE:
- DISPLAYS THE WELCOME MESSAGE AND CONTROLS FOR THE GAME.
- INITIALIZES THE USER EXPERIENCE.

FUNCTIONS - II

```
int main() {
    int pos = 0, dir = 1;
    const char* message = "Welcome to the JDM Marquee Game! ";
    Init();
```

- OVERVIEW:

- INT POS: TRACKS THE CURRENT POSITION OF THE MARQUEE.

- INT DIR: INDICATES THE DIRECTION OF MOVEMENT (LEFT OR RIGHT).

- CONST CHAR* MESSAGE: HOLDS THE MESSAGE DISPLAYED IN THE MARQUEE.

- CALLS THE INIT() FUNCTION TO DISPLAY INSTRUCTIONS.

FUNCTIONS - III

char getUserInput() { return _kbhit() ? _getch() : '\0'; }

- FUNCTIONALITY:

● USES _KBHIT() TO CHECK IF A KEY HAS BEEN PRESSED.

● IF A KEY IS PRESSED, _GETCH() RETRIEVES IT WITHOUT DISPLAYING IT.

● RETURNS '\0' IF NO KEY HAS BEEN PRESSED.

    ● SLEEP()
    - PURPOSE:
    ● PAUSES THE PROGRAM EXECUTION FOR 100 MILLISECONDS.
    ● CONTROLS MARQUEE REFRESH SPEED, ENSURING SMOOTH MOVEMENT.

WHILE LOOP

```
while (1) {
    pos = (pos + dir + strlen(message)) % strlen(message);
    printMarquee(message, &pos, dir);
    char input = getUserInput();
```

- EXPLANATION:

● THE INFINITE LOOP MAINTAINS THE MARQUEE'S DISPLAY LOGIC.

● UPDATES POS BASED ON DIRECTION AND WRAPS AROUND USING MODULO.

● CALLS printMarquee TO SHOW THE CURRENT STATE OF THE MARQUEE.

USER INPUT

```
if (input) {
    if (input == 'e') break;
    else if (input == 'l') dir = -1;
    else if (input == 'r') dir = 1;
    else printf("\nYou entered: '%c'\n", input);
}
```

-INPUT LOGIC:
- CHECKS FOR USER INPUT TO CHANGE DIRECTION OR EXIT THE GAME.
- DISPLAYS AN ACKNOWLEDGMENT FOR ANY OTHER KEY PRESSED.

-CONTROLS:
- A - MOVE THE MARQUEE LEFT
- D- MOVE THE MARQUEE RIGHT
- ANY KEY TO GENERATE A NEW MARQUEE LINE
- E TO EXIT/BREAK THE GAME

DEMO/SHOWCASE

CONCLUSION

- The JDM Marquee Game showcases a simple yet effective implementation using C programming.

- The code effectively demonstrates key programming concepts such as user input handling, string manipulation, and control flow.

- The design encourages user interaction while maintaining simplicity, allowing for easy modifications and enhancements.

THE END

THANK YOU FOR LISTENING