

Title: Marquee Display Animation

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Introduction

- **What is a Marquee Display?**
- A scrolling text display, commonly used in advertising and notifications.
- **Purpose of the program**
- To create a simple console application that animates text with use-controlled direction.

Program overview

- **Key features:**
- Displays a scrolling message.
- User controls to change the direction of scrolling.
- Ability to quit the program.

Code structure

- Main Components:

1. Init()- Displays the opening message.
2. getUserInput() - Handles keyboard input.
3. Animatemarquee()- manages the marquee animation.
4. main() - Entry point of the program.

The Init () Function

```
void Init() {  
    printf("Welcome to the Marquee Display!\n");  
    printf("Press 'l' for left, 'r' for right, and 'q' to quit.\n\n");  
}
```

Purpose

- To prints a welcome message and instructions for the user.

The getUserInput() Function

```
• Char getUserInput() {  
  If (_kbhit()) {  
    Return _getch();  
  }  
  Return 0;  
}
```

Functionality

- Checks if a key is pressed and captures it.
- Utilizes conio.h functions for non blocking input.

The animateMarquee() Function.

```
Void animateMarquee(const char * message){  
    //Logic for animating the marquee  
}
```

Core logic:

- Fills a display buffer with the scrolling message.
- Updates display based on user input for direction.
- Uses an infinite loop to continuously refresh the display.

User Interaction

- Controls:
- "l": Scroll left
- "r": Scroll right
- "q": Quit the application.

Main function

```
• Int main() {  
  Const char *message =" welcome to the Marquee Display!";  
  Init();  
  animateMarquee(message);  
  Printf("\nGoodbye!\n");  
  Return 0;  
}
```

Flow of execution

- Initializes the program and starts the marquee animation.
- Cleans up and exits gracefully upon quitting.

Conclusion

- **Key Takeaways:**

- Learned to implement a simple text based animation in C.
- Gained experience with user input handling and loop constructs.
- Encouraged exploration of further enhancements (e.g., different messages, speed adjustments).

