

30.- ft_striteri.-

1. BSD Man Page References:

Not directly applicable as `ft_striteri` is a custom function not found in standard libraries.

Synopsis:

```
void ft_striteri(char *s, void (*f)(unsigned int, char *));
```

Purpose:

Applies a user-defined function to each character of a string, passing both the character's index and address as arguments.

Description:

The `ft_striteri` function takes two arguments:

- `s`: A pointer to the null-terminated string to be processed.
- `f`: A pointer to a function that takes two arguments:
 - `i`: An unsigned integer representing the index of the character in the string.
 - `c`: A pointer to the character at the current index.
- The function `f` should modify the character pointed to by `c` based on the index and perform any other operations needed.

The `ft_striteri` function iterates through each character of the string and calls the function `f` with the index and address of the character. This allows the user-defined function to modify the string in-place or perform other operations based on the character's position.

Code explanation:

```
void ft_striteri(char *s, void (*f)(unsigned int, char *))
{
    unsigned int i;

    // Check for null input
    if (!s || !f)
    {
        return;
    }

    // Iterate through each character and call the user-defined function
    i = 0;
    while (s[i])
    {
        f(i, &s[i]);
        i++;
    }
}

// Example custom function: Uppercases each character
void custom_function(unsigned int i, char *c)
{
    (void)i; // Suppress unused variable warning
    *c = ft_toupper((int)*c);
}
```

```
}

int main(void)
{
    char s[] = "Hola, mundo";

    // Apply custom_function to uppercase each character
    ft_striteri(s, &custom_function);

    // Print the modified string
    printf("String: %s\n", s);

    return (0);
}
```

Key points:

- The user-defined function `f` can modify the original string in-place by dereferencing the `c` pointer.
- It's important to handle null input cases to avoid undefined behavior.
- The `main` function demonstrates how to use `ft_striteri` with a custom function to uppercase each character of the string.

Additional notes:

- Remember that any modifications made by the user-defined function persist in the original string.
- Use caution when modifying strings in-place to avoid unintended consequences.