Write a program in C to concatenate two strings using pointers.

#include <stdio.h>

int main() {

    char str1[100], str2[100], \*ptr1, \*ptr2;

    int i;

    printf("Enter the first string: ");

    gets(str1);

    printf("Enter the second string: ");

    gets(str2);

    ptr1 = str1;

    while (\*ptr1 != '\0') {

        ptr1++;

    }

    ptr2 = str2;

    i = 0;

    while (\*ptr2 != '\0') {

        \*(ptr1 + i) = \*ptr2;

        ptr2++;

        i++;

    }

    \*(ptr1 + i) = '\0';

    printf("Concatenated string: %s", str1);

    return 0;

}

Explanation:

1. Declare two-character arrays **str1** and **str2**, and two pointers **ptr1** and **ptr2** to point to them.
2. Use the **gets()** function to read in the two strings.
3. Assign **ptr1** to point to **str1**.
4. Use a while loop to traverse through **str1** until the null character is reached.
5. Assign **ptr2** to point to **str2**.
6. Use a while loop to copy the characters in **str2** one by one to the end of **str1**, using pointer arithmetic to index the elements.
7. Add a null character at the end of the concatenated string.
8. Print out the concatenated string using the **%s** format specifier.
9. Return 0 to exit the program.