

```

//  

// Class Activity: Format String Vulnerabilities  

//  

//  

// Draw the call stack contents (with stack frames for main() and printf() functions)  

// when the call to printf() is currently active.  

//  

// Assume that local variables are allocated storage in the stack frame (high to low  

// address) in the order of their declaration in the source code.  

//  

// Include va_list ptr in your diagram.  

//  

#include <stdio.h>  

  

int main()  

{  

    int x = 100;  

    int y = 25;  

    char name1[10] = "John Doe";  

    char *name2 = "Bob Smith";  

  

    printf("x: %d, y: %d, Name1: %s, Name2: %s\n", x, y, name1, name2);  

  

    return 0;  

}  

  

//  

// Write a function named "totstrlen" that takes a variable number of strings as  

// its arguments, and returns their total length.  

//  

// Here is a sample call to this function which returns 46  

//  

// totstrlen(3,"Grand Valley State University","Allendale","Michigan")  

//  

// Look at the example code (myprint.c) on pages 132-133 in the book  

//  

#include <stdio.h>  

#include <stdarg.h>  

#include <string.h>  

  

int totstrlen(int narg, ...)  

{  

  

}  

  

}  

  

int main()  

{  

    int len = totstrlen(3,"Grand Valley State University","Allendale","Michigan");  

    printf("Total length of the strings: %d\n",len);  

  

    len = totstrlen(4,"Computer","security","is","so much fun!");  

    printf("Total length of the strings: %d\n",len);  

}

```