Problem 2 Solution Description:

1. Header File: I have created a header file containing all the three functions A,B and C and named it ques.h to give access to all the functions to each other so they can call each other.
2. C function is defined with the keyword extern so that it can be easily accessed by B.
3. Then the main function from the file ques2.c calls the function A.(working explained below)

function_A.c contains:

Definition of function A prints a message and then calls function_B with an unsigned long long variable (since it is 64 bit integer).
Then function_A prints an other message to check if B is returning back to A(which it shouldn't)

function_b.asm contains:

function_B written in assembly language has a reference to C function (with the help of extern) and it modifies the stack using base pointer (rbp) and stack pointer (rsp).
I have used the r9 register to copy the reference of function_C and pushed that pointer onto the stack to make the return address change to C.
Note:
Function B also prints ASCII value of the number passed as an argument by reading it using rdi register and 8 byte variable number and then printing it onto the screen.

function_C.c contains:

function_C prints a message and uses the exit() system call to terminate the program execution .

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