Gdb with recursion

Instructions for submission: PPL Assignment 3
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Problem Statement:

Use gdb to read code for C program to find factorial of a number with recursion and demonstrate how parameters are passed using pass by value.

Objectives:

1. To use ***gdb*** to debug C programs.
2. To demonstrate how breakpoints can be used for debugging a program.

Execution:

Steps to execute and submit the assignment:

1. Write a C Program with recursive function to find the factorial of an integer.
2. Compile the C program in debug mode using >***gcc -g file3.c***
3. Use the gdb command with the output file: >***gdb ./a.out. We will be using the following commands in gdb:***

   I. **b main** : To insert breakpoint at main function(Can also use b <line_number>)

   II. **r/run**: To run your program.

   III**. n/next:** To execute the next line in your code.

   IV. **c/continue:** will continue the execution of your program until next breakpoint/interrupt like print/scan.

   V. **p <var>:** Will print the value of local variable <var>

4. Insert two ***breakpoints***: ***main*** and ***fact*** function.
5. ***Run*** your program. It will halt at the first breakpoint in main().
6. Type ***'c'*** to continue; Enter your integer; It will halt at second breakpoint fact();
7. Type ***'n'*** to go inside the function; Type ***'p n'*** to print the value of n.
8. Repeat step 7 till you exit from the main function.
9. Take the screenshots of your processing in a single folder along with your C program.