

CSE-016 PROGRAMMING LAB ASSIGNMENT № 1

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Document structure is detailed in the final page.

1 Problem

Problem (C): Take Home Assignment: Write a program that prints the following shape:



2 Student's Solution

2.1 Source Code

Program's main.c File – Uses `printf()` to output a line-by-line representation of the polygon.

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      printf("    *    \n");
7      printf("   * *   \n");
8      printf("  *  *  \n");
9      printf(" *    * \n");
10     printf("*      *\n");
11     printf(" *    * \n");
12     printf("  *  *  \n");
13     printf("   * *   \n");
14     printf("    *    \n");
15     return 0;
16 }
```

2.2 Output

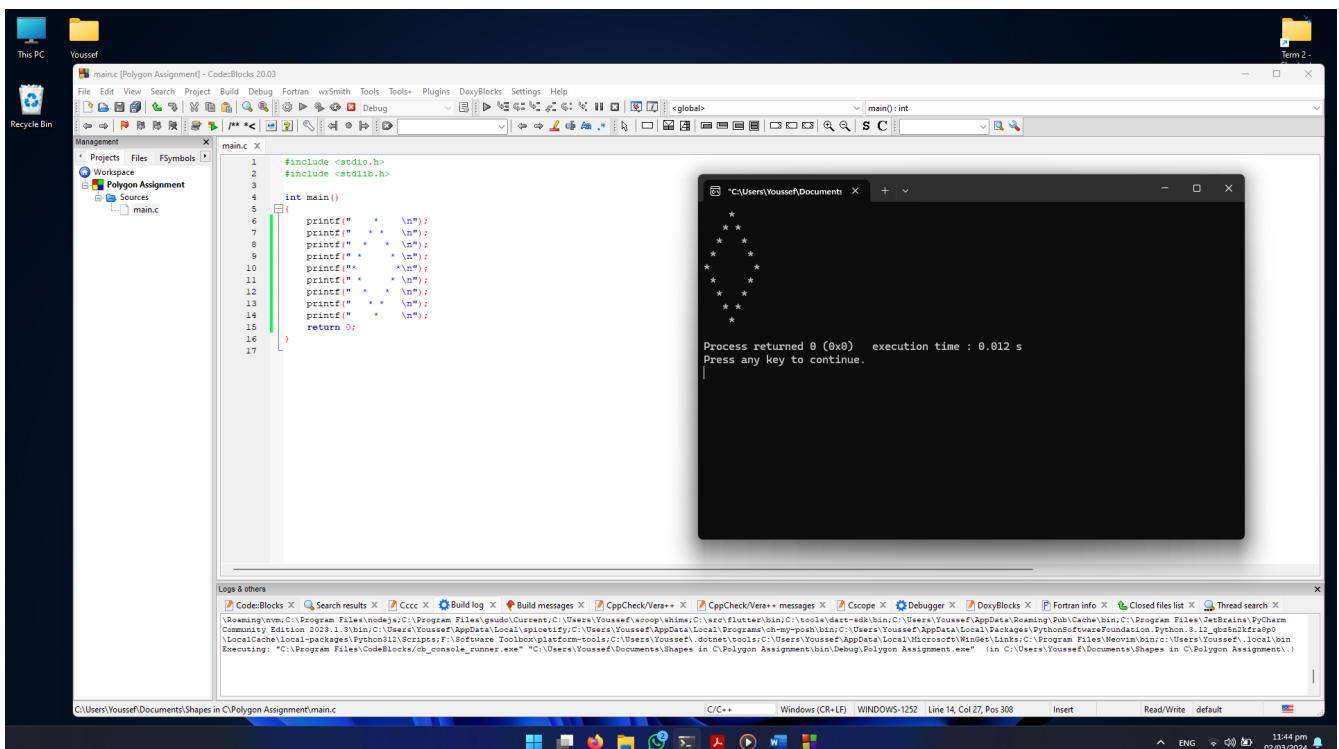
Program's output to console – in plaintext.

```
  *
 * *
 *  *
*    *
*    *
*    *
*    *
*  *
 *
```

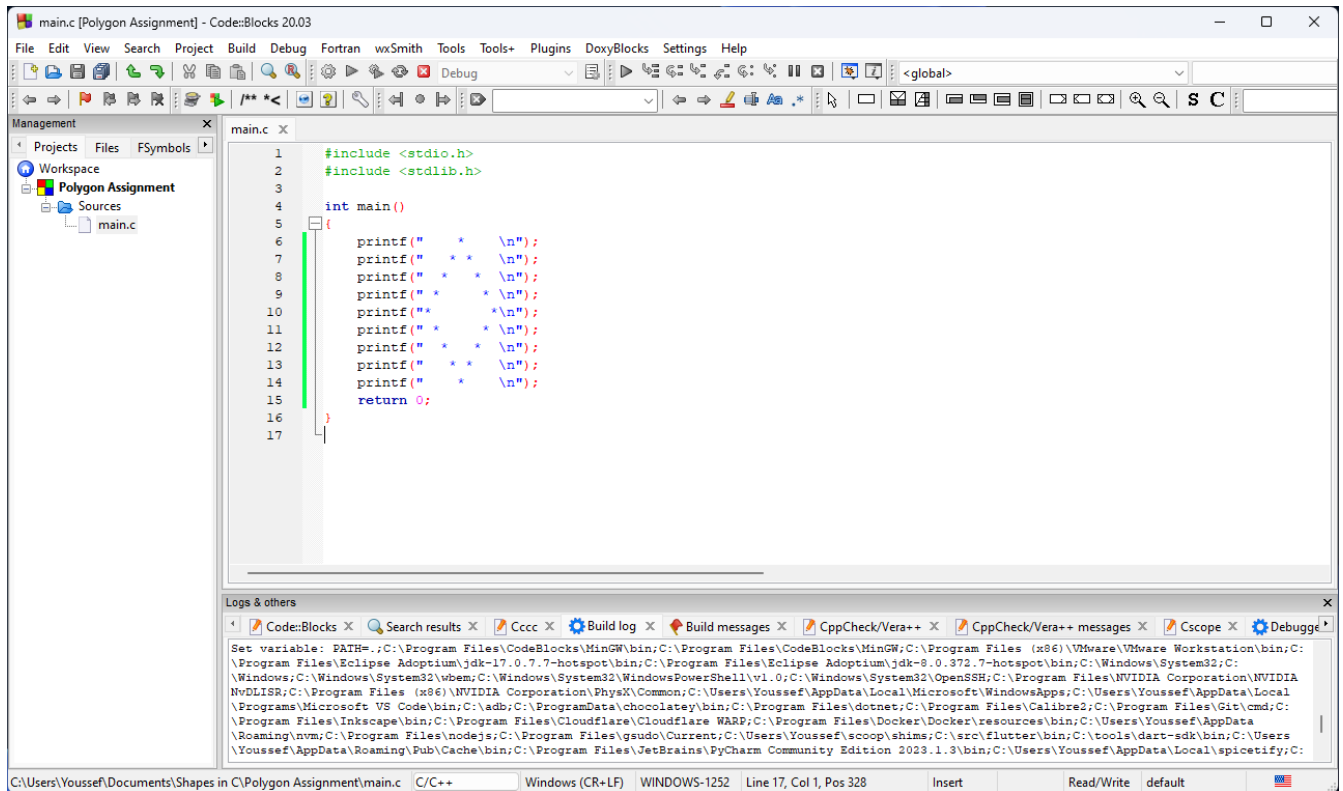
Process returned 0 (0x0) execution time : 0.012 s
Press any key to continue.

2.3 Evidence of Work (Screenshots)

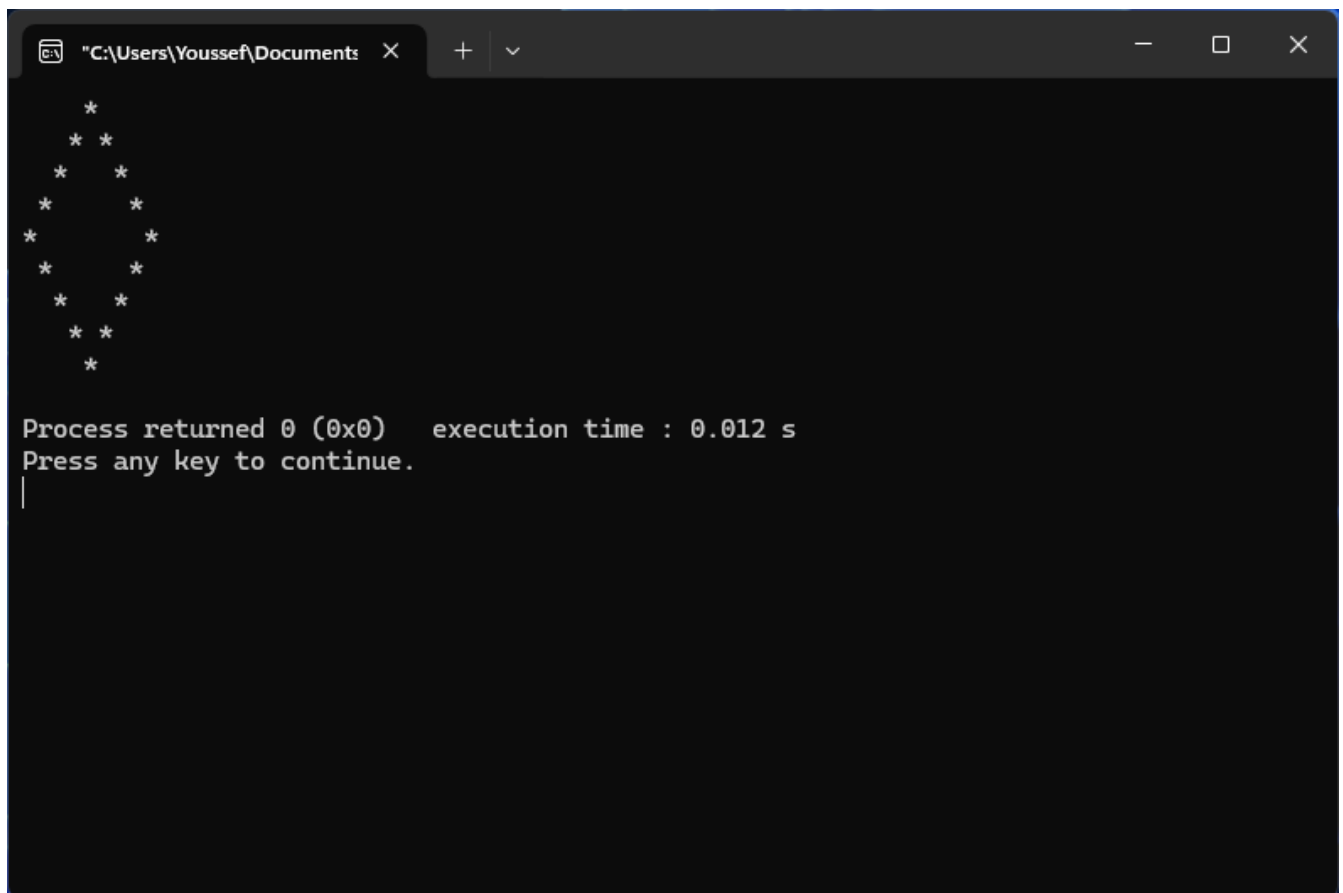
A. Desktop Screenshot



B. Codeblocks IDE Screenshot



C. Output in Console Terminal Screenshot



2.4 Documentation

2.4.1 Specifications

- **Dependencies:**
 - `stdio.h` header file, part of the C Standard Library (Required)
 - `stdlib.h` (Unused)
- **Compiler:** GNU C Compiler (`gcc`) version 8.1.0
- **Unit Testing:** not applicable
- **Supported Platforms:** OS: (any), architecture: (any)
- **Tested On:**
 - Windows 11, x64_86 or x64 arch

2.4.2 Troubleshooting & Misc

Line 2 is included by default, we were not instructed to omit it.

Line 15 return codes are usually only useful on Unix-like environments, we were not instructed to omit it.

2.5 License & Warranty

Any source code or compiled application included or distributed by the author (Youssef Ahmed Samy) is licensed under the Lesser GNU Public License (LGPL) when applicable, excluding instances where the source code or program function is too generic – like in "Hello World" programs.

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