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Open [icon] *q1_ahan.c ~/Z11210008_CompilerDesignLab

1 //AHAN BANDYOPADHYAY
2 //211210008
3 //Compiler Design Lab1
4
5 //Q1.Identify the files created while compilation and execution of a C program
6 // gcc -Wall -save-temps filename.c -o filename
7
8 //.s file is assembly language source code, for code written with the Gnu assembler that is part of gcc.
9
10
11
12
13 #include<stdio.h>
14 #include<stdlib.h>
15
16 int main(){
17     printf("Hello\n");
18
19     return 0;
20 }
```

```
Open [icon] q1_ahan.i ~/Z11210008_CompilerDesignLab

*q1_ahan.c q1_ahan.i

1 # 0 "q1_ahan.c"
2 # 0 "<built-in>"
3 # 0 "<command-line>"
4 # 1 "/usr/include/stdc-predef.h" 1 3 4
5 # 0 "<command-line>" 2
6 # 1 "q1_ahan.c"
7
8
9
10
11
12
13
14 # 1 "/usr/include/stdio.h" 1 3 4
15 # 27 "/usr/include/stdio.h" 3 4
16 # 1 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 1 3 4
17 # 33 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 3 4
18 # 1 "/usr/include/features.h" 1 3 4
19 # 392 "/usr/include/features.h" 3 4
20 # 1 "/usr/include/features-time64.h" 1 3 4
21 # 20 "/usr/include/features-time64.h" 3 4
22 # 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
23 # 21 "/usr/include/features-time64.h" 2 3 4
24 # 1 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 1 3 4
25 # 19 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 3 4
26 # 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
27 # 20 "/usr/include/x86_64-linux-gnu/bits/timesize.h" 2 3 4
28 # 22 "/usr/include/features-time64.h" 2 3 4
29 # 393 "/usr/include/features.h" 2 3 4
30 # 486 "/usr/include/features.h" 3 4
31 # 1 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 1 3 4
32 # 559 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 3 4
33 # 1 "/usr/include/x86_64-linux-gnu/bits/wordsize.h" 1 3 4
34 # 560 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 2 3 4
35 # 1 "/usr/include/x86_64-linux-gnu/bits/long-double.h" 1 3 4
36 # 561 "/usr/include/x86_64-linux-gnu/sys/cdefs.h" 2 3 4
37 # 487 "/usr/include/features.h" 2 3 4
38 # 510 "/usr/include/features.h" 3 4
39 # 1 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 1 3 4
40 # 10 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 3 4
41 # 1 "/usr/include/x86_64-linux-gnu/gnu/stubs-64.h" 1 3 4
42 # 11 "/usr/include/x86_64-linux-gnu/gnu/stubs.h" 2 3 4
43 # 511 "/usr/include/features.h" 2 3 4
44 # 34 "/usr/include/x86_64-linux-gnu/bits/libc-header-start.h" 2 3 4
45 # 28 "/usr/include/stdio.h" 2 3 4
46
47
48
49
50
51 # 1 "/usr/lib/gcc/x86_64-linux-gnu/11/include/stddef.h" 1 3 4
```

```
Open [icon] q1_ahan.s ~/Z11210008_CompilerDesignLab

*q1_ahan.c q1_ahan.s

1 .file "q1_ahan.c"
2 .text
3 .section .rodata
4 .LC0:
5 .string "Hello"
6 .text
7 .globl main
8 .type main,@function
9 main:
10 .LFB6:
11 .cfi_startproc
12 endbr64
13 pushq %rbp
14 .cfi_def_cfa_offset 16
15 .cfi_offset 0, -16
16 movq %rsp, %rbp
17 .cfi_def_cfa_register 6
18 leaq -16(%rip), %rax
19 movq %rax, %rdi
20 call puts@PLT
21 movl $0, %eax
22 popq %rbp
23 .cfi_def_cfa 7, 8
24 ret
25 .cfi_endproc
26 .LFE6:
27 .size main, .-main
28 .ident "GCC: (Ubuntu 11.4.0-1ubuntu1-22.04) 11.4.0"
29 .section .note.gnu-stack,"",@progbits
30 .section .note.gnu.property,"a"
31 .align 8
32 .long 1f - 0f
33 .long 4f - 1f
34 .long 5
35 0:
36 .string "GNU"
37 1:
38 .align 8
39 .long 0xc0000002
40 .long 3f - 2f
41 2:
42 .long 0x3
43 3:
44 .align 8
45 4:
```