gcc -o / -O option flags

gcc -o writes the build *output* to an output file.

gcc -O sets the compiler's *optimization* level.

gcc -o option flag

Write the build output to an output file.

Syntax

```
$ gcc [options] [source files] [object files] -o output file
```

Example

myfile.c:

```
// myfile.c
#include <stdio.h>

void main()
{
    printf("Program run\n");
}
```

Build *myfile.c* on terminal and run the output file *myfile*:

```
$ gcc myfile.c -o myfile
$ ./myfile
Program run
$
```

gcc -O option flag

Set the compiler's optimization level.

option	optimization level	execution time	code size	memory usage	compile time
-O0	optimization for compilation time (default)	+	+	-	-
-O1 or -O	optimization for code size and execution time	-	-	+	+
-O2	optimization more for code size and execution time	--		+	++
-O3	optimization more for code size and execution time	---		+	+++
-Os	optimization for code size		--		++
-Ofast	O3 with fast none accurate math calculations	---		+	+++

+increase ++increase more +++increase even more -reduce --reduce more ---reduce even more

Syntax

```
$ gcc -Olevel [options] [source files] [object files] [-o output file]
```

Example

myfile.c:

```
// myfile.c
#include <stdio.h>

void main()
{
    printf("Program run\n");
}
```

Build *myfile.c* on terminal and run the output file *myfile*:

```
$ gcc -O myfile.c -o myfile
$ ./myfile
Program run
$
```

See also

- gcc
- gcc -c
- gcc -D
- gcc -g
- gcc -I
- gcc -L -l
- gcc -Wall

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