

# ASSIGNMENT 0.1

## Understanding Program Compilation Process

GCC command-line options that pauses the compilation of the program.

### 1. Preprocessing:

In this process, it convert .c file into .i file. In which it do Header file inclusion, Macro substitution (define), comment removal, condition compilation.

#### COMMANDS:

```
gcc -E hello.c > hello.i
```

### 2. Compiler:

Now preprocessor (.i) file will give to compiler and give assembly instructions (.s) file as an output.

#### COMMANDS:

```
gcc -S hello.i
```

### 3. Assembler:

In this it take Assembly instruction as input that is (.s) file and give object file (.o).

#### COMMANDS:

```
gcc -c hello.s
```

### 4. Linker:

It take an object file as input and combine together and form final Executable file and give output ./a as output file.

## COMMANDS:

```
gcc -o hello.s
```

And in last to compile ./a.out