Q3. Write a bash script that should compile a .c program, run the program and then save the output of the program in an output file.

The required script is as follows.

run.sh file:

```bash
#!/bin/bash

gcc $1 -o "$1.out"
touch "$1.output.txt"
"./$1.out" > "$1.output.txt"
```

The sample C program to demonstrate the usage of this script is as follows.

hello.c file:

```c
#include<stdio.h>

int main() {
    printf("Hello World!\n");
    return 0;
}
```

Following command is used to run the program.

```
./run.sh hello.c
```

Its output is as follows.

```
@3 ** ./run.sh hello.c
@3 ** cat hello.c.output.txt
Hello World!
@3 **
```