**Module: R1: C Programming**

**Section:** Intro to C **Task:** 2’s Complement

**Task 1.1‬**

**‭Two’s Complement of 16 bit signed numbers‬**

**Code Snippet:**

#include <stdio.h>

void decToBin(int dec) {

for (int bit = 15; bit >= 0; bit--) {

int k = (unsigned int)dec >> bit;

printf("%d", (k & 1) ? 1 : 0);

}

printf("\n");

}

int main(void) {

int n;

printf("Please Enter a Number: ");

scanf("%d", &n);

decToBin(n);

// 2's Complement

short complement = ~n + 1;

printf("Two's Complement: ");

for (int bit = 15; bit >= 0; bit--){

printf("%d", (complement >> bit) & 1);

}

return 0;

}

**Output:**