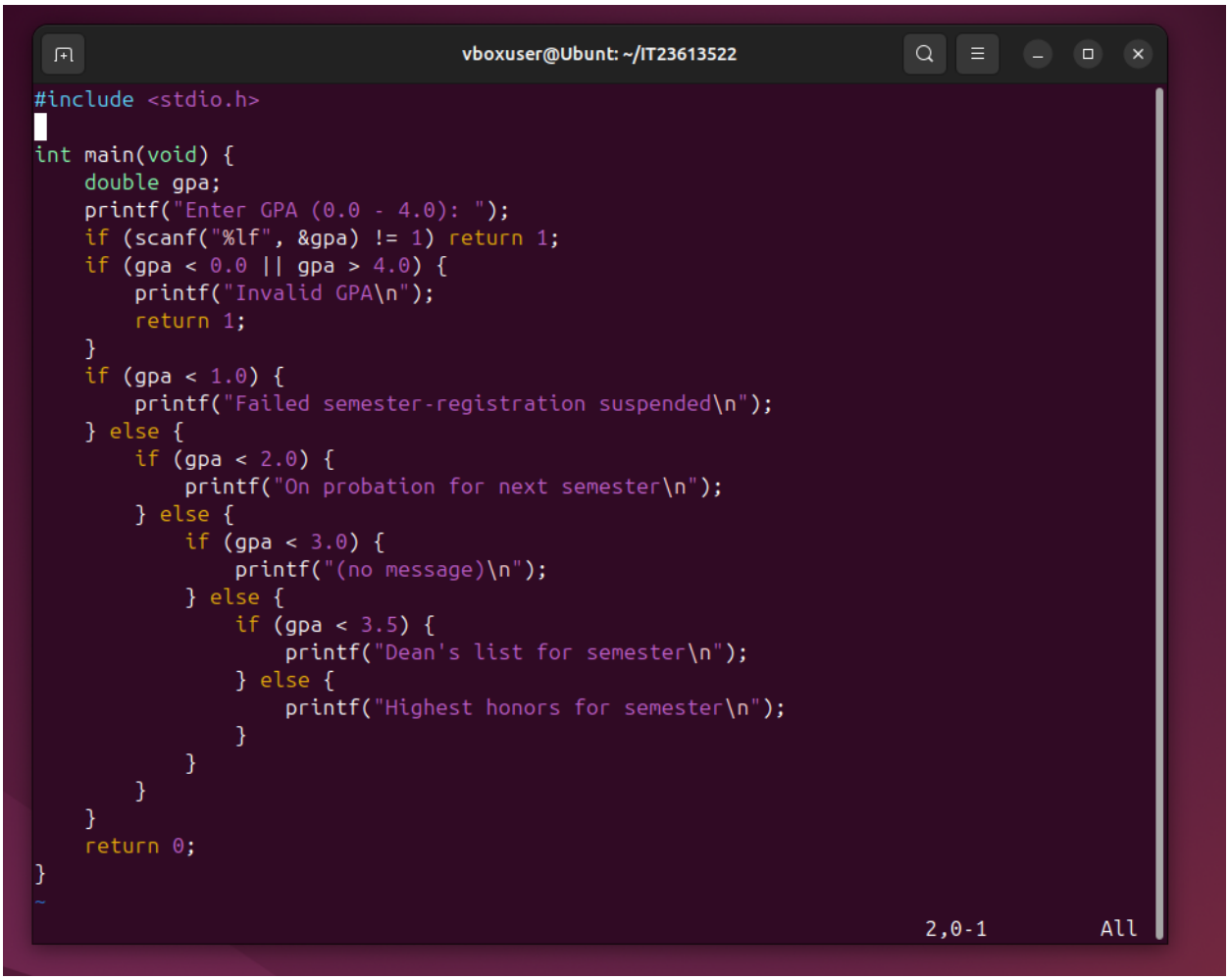
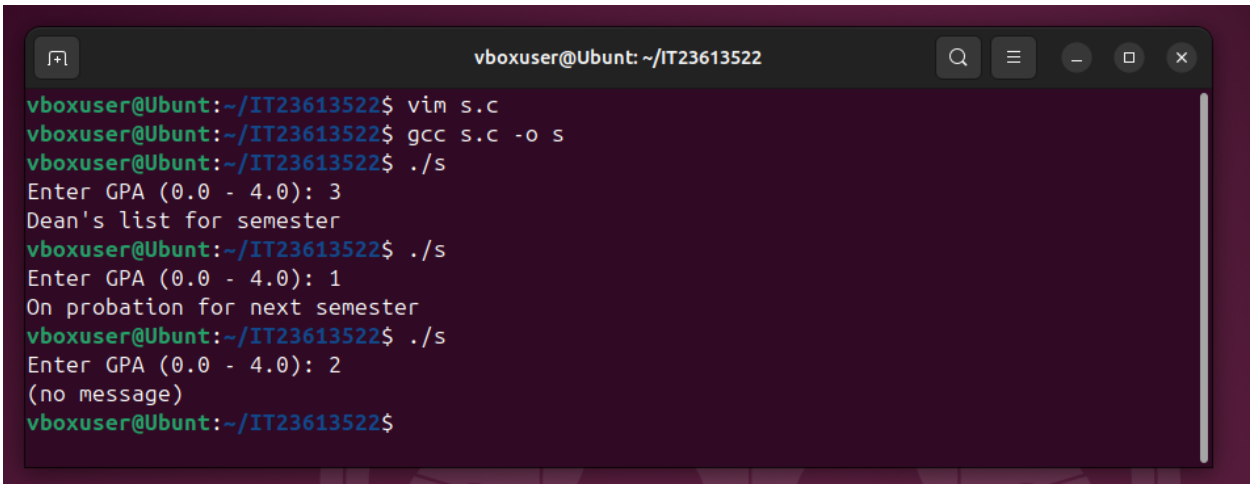
Programming Methodology - SE1012

Lab 5

IT23613522

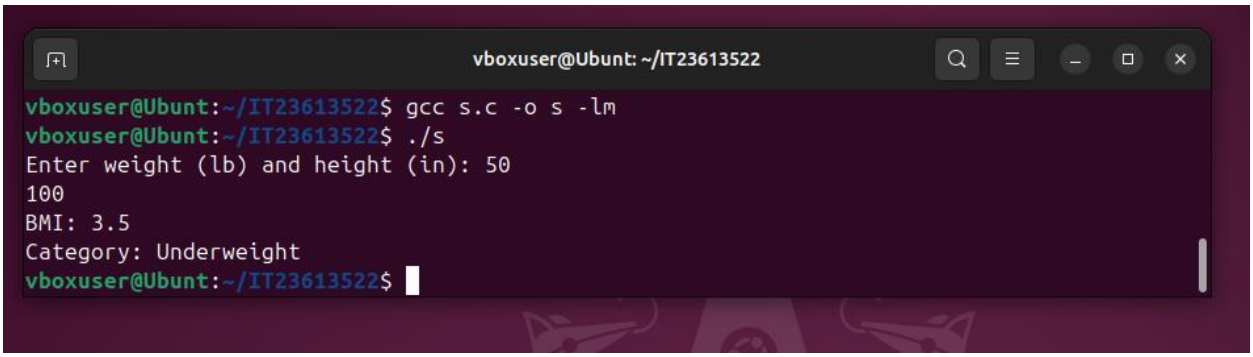
Question 1



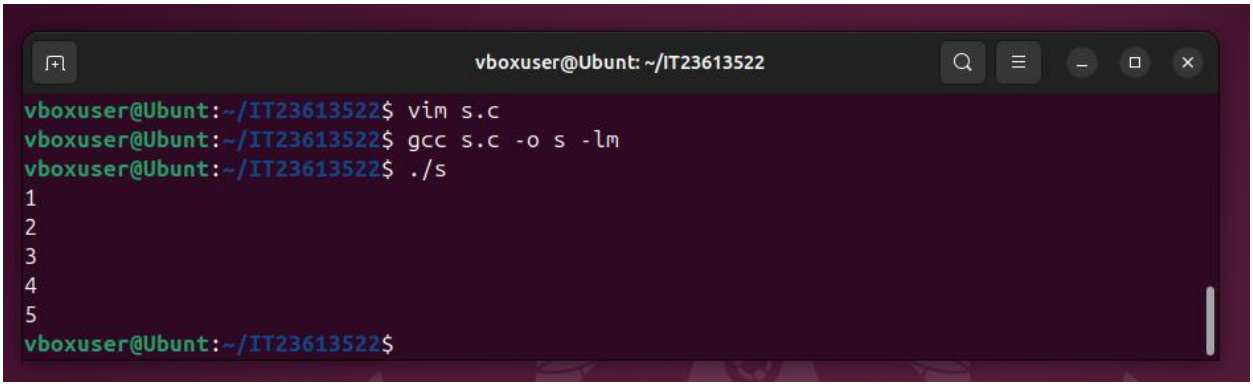

vboxuser@Ubunt: ~/IT23613522
vboxuser@Ubunt:~/IT23613522$ vim s.c
vboxuser@Ubunt:~/IT23613522$ gcc s.c -o s
vboxuser@Ubunt:~/IT23613522$ ./s
Enter GPA (0.0 - 4.0): 3
Dean's list for semester
vboxuser@Ubunt:~/IT23613522$ ./s
Enter GPA (0.0 - 4.0): 1
On probation for next semester
vboxuser@Ubunt:~/IT23613522$ ./s
Enter GPA (0.0 - 4.0): 2
(no message)
vboxuser@Ubunt:~/IT23613522$

Question2

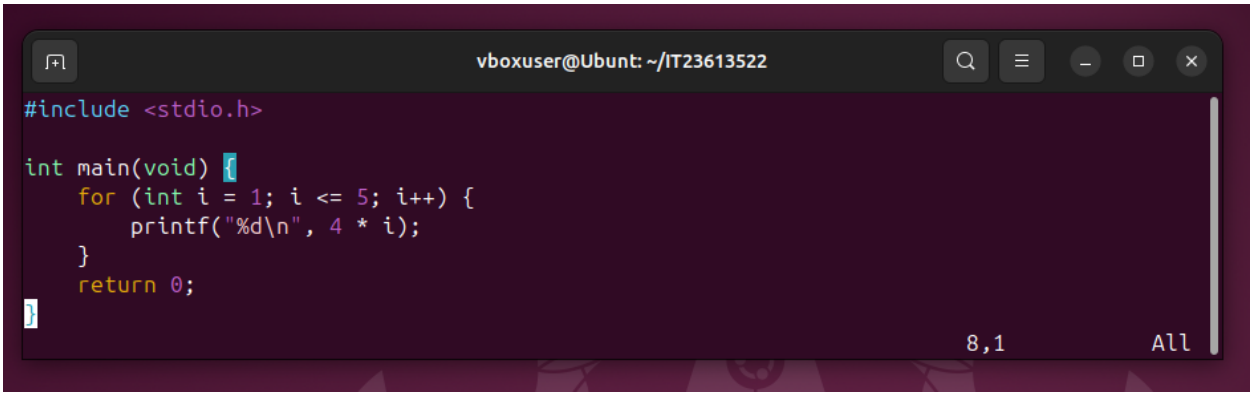
vboxuser@Ubunt: ~/IT23613522
#include <stdio.h>
#include <math.h>
int main(void) {
double wt_lb, ht_in;
printf("Enter weight (lb) and height (in): ");
if (scanf("%lf %lf", &wt_lb, &ht_in) != 2) return 1;
if (ht_in <= 0.0) { printf("Invalid height\n"); return 1; }
double bmi = (wt_lb / (ht_in * ht_in)) * 703.0;
bmi = round(bmi * 10.0) / 10.0;
printf("BMI: %.1f\n", bmi);
if (bmi < 18.5) printf("Category: Underweight\n");
else if (bmi < 25.0) printf("Category: Normal weight\n");
else if (bmi < 30.0) printf("Category: Overweight\n");
else printf("Category: Obese\n");
return 0;
}
17,1 All

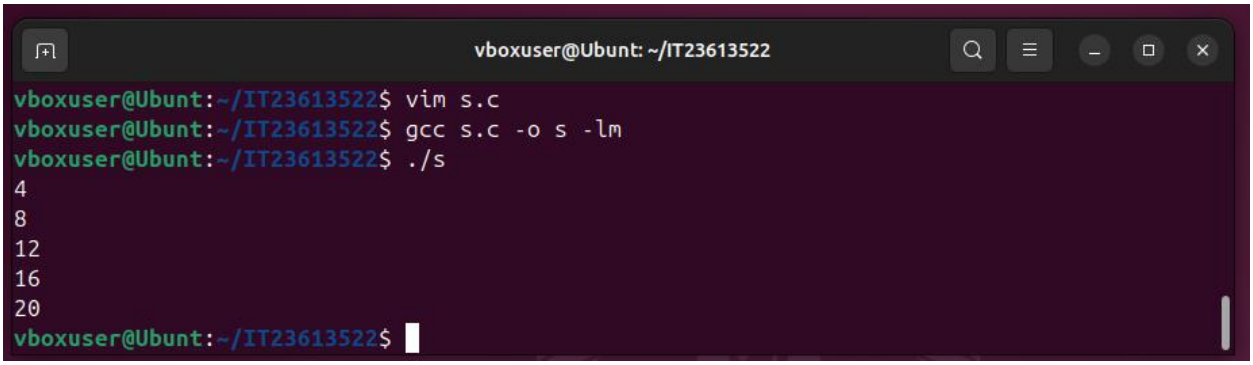

vboxuser@Ubunt: ~/IT23613522
vboxuser@Ubunt:~/IT23613522$ gcc s.c -o s -lm
vboxuser@Ubunt:~/IT23613522$ ./s
Enter weight (lb) and height (in): 50
100
BMI: 3.5
Category: Underweight
vboxuser@Ubunt:~/IT23613522$

Question 3

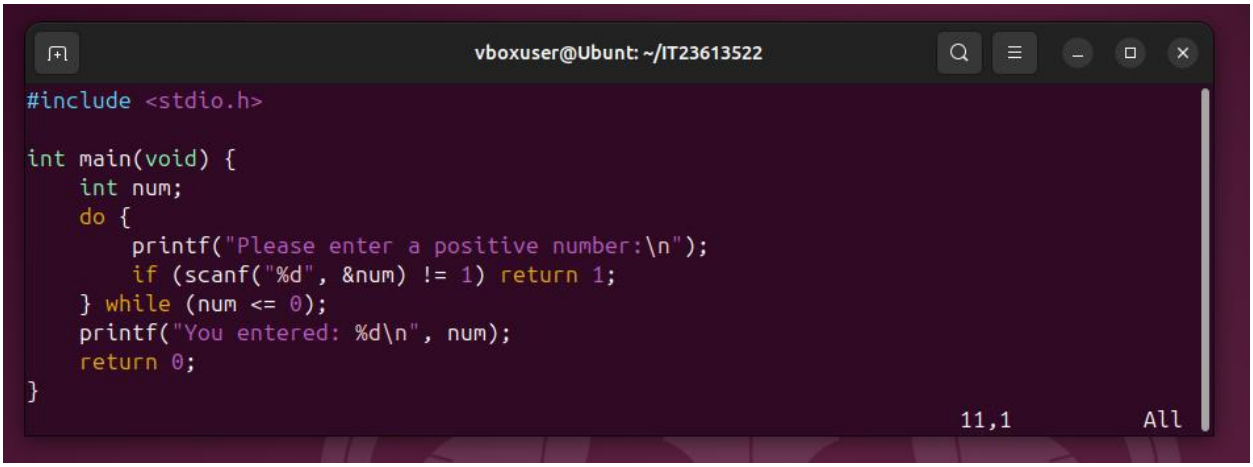


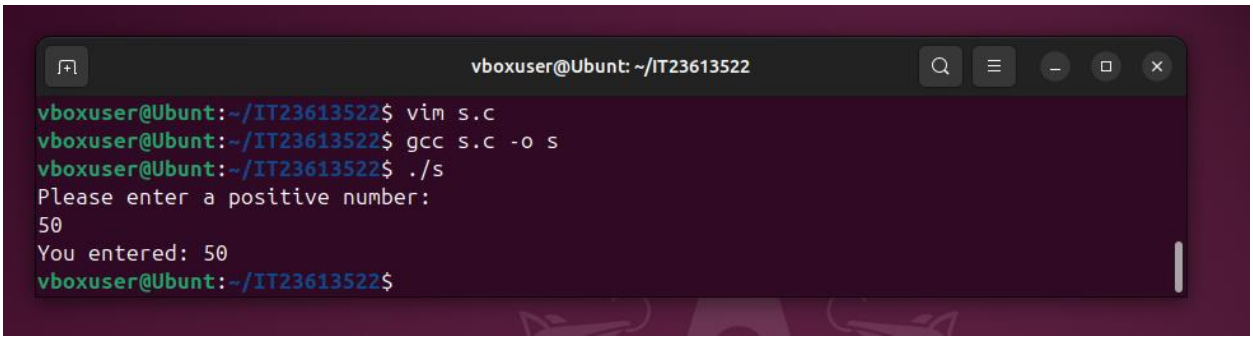
Question 4





Question 5





Question6

vboxuser@Ubunt: ~/IT23613522

```c
#include <stdio.h>

int main(void) {
    char status;
    for (int i = 1; i <= 5; i++) {
        if (printf("Enter status for order %d: ", i) < 0) return 1;
        if (scanf(" %c", &status) != 1) return 1;
        if (status == 'I' || status == 'i') {
            printf("Skipping order %d\n", i);
            continue;
        } else if (status == 'S' || status == 's') {
            printf("Stopping at order %d\n", i);
            break;
        } else if (status == 'V' || status == 'v') {
            printf("Processing order %d\n", i);
        } else {
            printf("Invalid code for order %d\n", i);
        }
    }
    return 0;
}
```

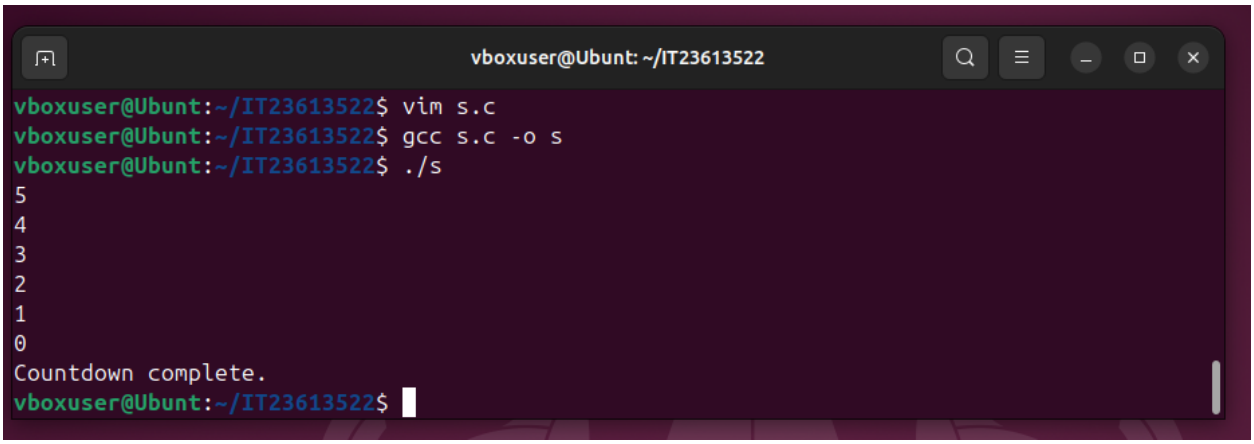
21,1 All

vboxuser@Ubunt: ~/IT23613522

```
vboxuser@Ubunt:~/IT23613522$ vim s.c
vboxuser@Ubunt:~/IT23613522$ gcc s.c -o s
vboxuser@Ubunt:~/IT23613522$ ./s
Enter status for order 1: i
Skipping order 1
Enter status for order 2: s
Stopping at order 2
vboxuser@Ubunt:~/IT23613522$ ./s
Enter status for order 1: i
Skipping order 1
Enter status for order 2: v
Processing order 2
Enter status for order 3: v
Processing order 3
Enter status for order 4: v
Processing order 4
Enter status for order 5: i
Skipping order 5
vboxuser@Ubunt:~/IT23613522$
```

Question7

vboxuser@Ubunt: ~/IT23613522
#include <stdio.h>
int main(void) {
int n = 5;
while (n >= 0) {
printf("%d\n", n);
n--;
}
printf("Countdown complete.\n");
return 0;
}
~
11,1 All


vboxuser@Ubunt: ~/IT23613522
vboxuser@Ubunt:~/IT23613522$ vim s.c
vboxuser@Ubunt:~/IT23613522$ gcc s.c -o s
vboxuser@Ubunt:~/IT23613522$ ./s
5
4
3
2
1
0
Countdown complete.
vboxuser@Ubunt:~/IT23613522$