Practice Problem 1

Source Code

Welcome | practice_problem1.c

practice_problem1.c > main()

```c
#include <stdio.h>

int main() {
    float a, b, c;

    printf("Enter the three side of the triangle: ");
    scanf("%f %f %f", &a, &b, &c);

    if (a + b > c && b + c > a && c + a > b) {
        if (a == b && b == c) {
            printf("The triangle is Equilateral.\n");
        } else if (a == b || b == c || a == c) {
            printf("The triangle is Isosceles.\n");
        } else {
            printf("The triangle is Scalene.\n");
        }
    } else {
        printf("The triangle is not valid.\n");
    }

    return 0;
}

```

Input & Output

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5/"practice_problem1
Enter the three side of the triangle: 1 2 3
The triangle is not valid.
```

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5$ ort/Lab 5/"practice_problem1
Enter the three side of the triangle: 12 13 16
The triangle is Scalene.
```

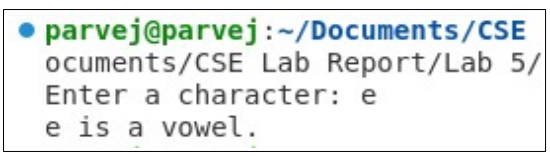
Practice Problem 2

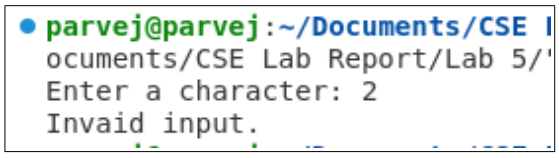
Source Code

practice_problem2.c > main()

```c
#include <stdio.h>

int main() {
    char ch;

    printf("Enter a character: ");
    scanf("%c", &ch);

    switch(ch) {
        case 'a':
        case 'e':
        case 'i':
        case 'o':
        case 'u':
        case 'A':
        case 'E':
        case 'I':
        case 'O':
        case 'U':
            printf("%c is a vowel.\n", ch);
            break;
        default:
            if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
                printf("%c is a consonant.\n", ch);
            } else {
                printf("Invaid input.\n");
            }
            break;
    }

    return 0;
}
```

Input & Output





Practice Problem 3

Source Code

C practice_problem3.c > ...

```c
#include <stdio.h>

int main()
{
    float salary, bonus;

    printf("Enter the salary: ");
    scanf("%f", &salary);

    int range;
    if (salary > 8000 && salary <= 10000)
    {
        range = 1;
    }
    else if (salary > 6000 && salary <= 8000)
    {
        range = 2;
    }
    else if (salary > 3000 && salary <= 6000)
    {
        range = 3;
    }
    else
    {
        range = 4;
    }

    switch (range)
    {
    case 1:
        bonus = salary * 0.08;
        break;
    case 2:
        bonus = salary * 0.05;
        break;
    case 3:
        bonus = salary * 0.02;
        break;
    default:
        bonus = salary * 0.01;
        break;
    }
    printf("The bonus for a salary of %.2f is: %.2f\n", salary, bonus);
    return 0;
}
```

Input & Output

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5$
ort/Lab 5/"practice_problem3
Enter the salary: 7000
The bonus for a salary of 7000.00 is: 350.00
```

Practice Problem 4

Source Code

practice_problem4.c > ...

```c
#include <stdio.h>

int main() {
    int num;
    printf("Enter a number: ");
    scanf("%d", &num);

    (num % 3 == 0) ? printf("%d is divisible by 3.\n", num) : printf("%d is not divisible by 3.\n", num);

    return 0;
}
```

Input & Output

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5$ (
ocuments/CSE Lab Report/Lab 5/"practice_problem4
Enter a number: 12
12 is divisible by 3.
```

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5$ (
ocuments/CSE Lab Report/Lab 5/"practice_problem4
Enter a number: 17
17 is not divisible by 3.
```

Practice Problem 5

Source Code

practice_problem5.c > main()

```c
#include <stdio.h>

int main()
{
    int a, b, c, smallest;

    printf("Enter three numbers: ");
    scanf("%d %d %d", &a, &b, &c);

    smallest = (a < b) ? ((a < c) ? a : c) : ((b < c) ? b : c);

    printf("The smallest number is: %d\n", smallest);

    return 0;
}
```

Input & Output

```
parvej@parvej:~/Documents/CSE Lab Report/Lab 5$
ocuments/CSE Lab Report/Lab 5/"practice_problem
Enter three numbers: 12 2 4
The smallest number is: 2
```