1. WAP to check for a valid traingle.

main.c

```c


#include <stdio.h>

int main() {
    float a, b, c;
    printf("Enter 3 sides: ");
    scanf("%f %f %f", &a, &b, &c);

    if (a + b > c && a + c > b && b + c > a) {
        printf("The sides form a valid triangle.\n");
    } else {
        printf("The sides not form a valid triangle.\n");
    }

    return 0;
}

```

```
Enter 3 sides: 4 5 6
The sides form a valid triangle.
```

2. WAP to check if a character is an Alphabet.

main.c

```c
#include <stdio.h>

int main() {
    char ch;
    printf("Enter a character: ");
    scanf("%c", &ch);
    if ((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z')) {
        printf("%c is an alphabet.\n", ch);
    } else {
        printf("%c is not an alphabet.\n", ch);
    }

    return 0;
}
```

```
Enter a character: d
d is an alphabet.
```

3. WAP to check if a Year is a leap Year.

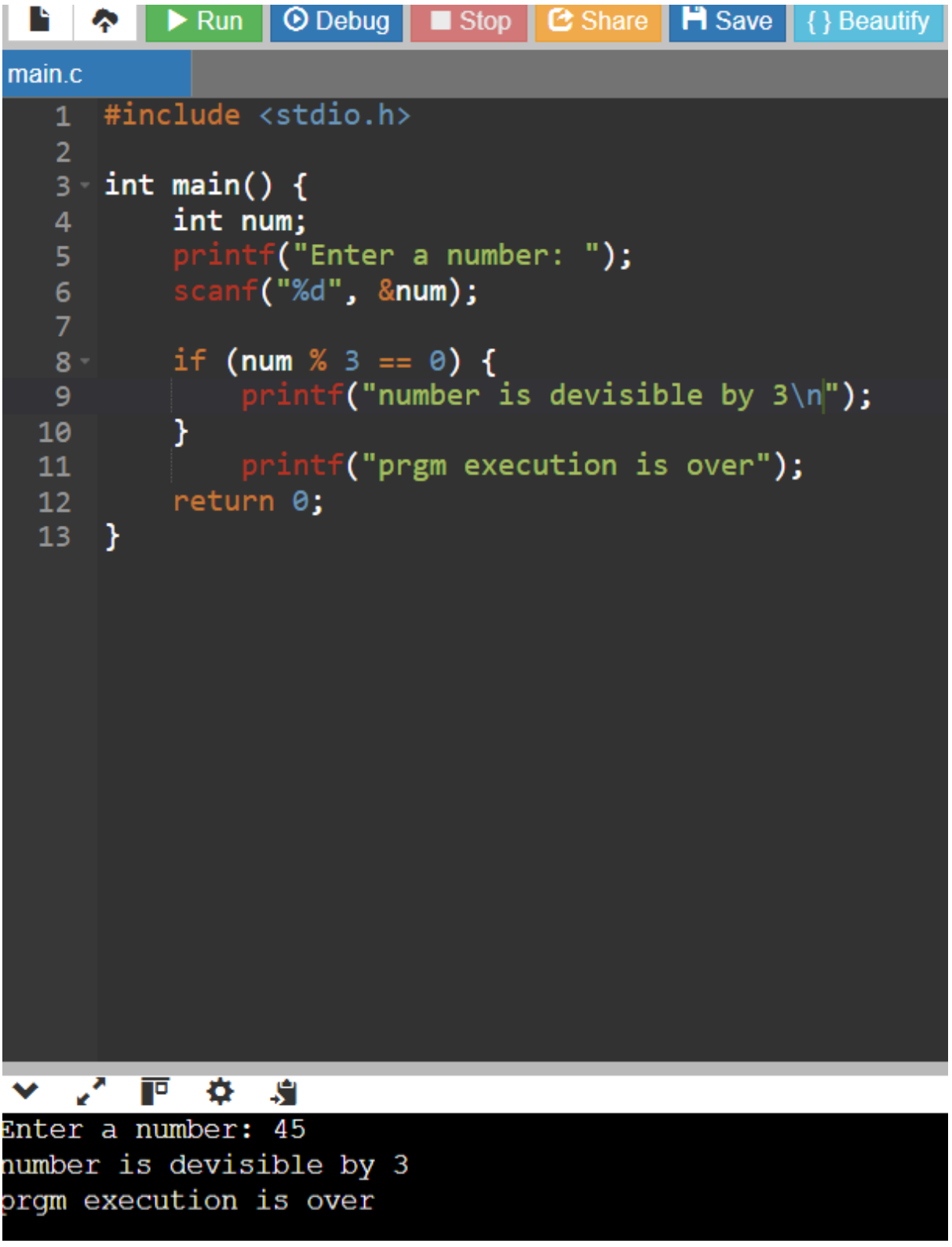
main.c

```c
#include <stdio.h>

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

    if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
        printf("%d is a leap year.\n", year);
    }
        printf("prgm execution is over");
    return 0;
}
```

input

```
Enter a year: 2000
2000 is a leap year.
prgm execution is over
```

4. WAP to check if a number is divisible by 3.



5. WAP to check for Uppercase Characters.

main.c

```c
#include <stdio.h>

int main() {
    char ch;
    printf("Enter a character: ");
    scanf("%c", &ch);
    if (ch >= 'A' && ch <= 'Z') {
        printf("%c is uppercase.\n", ch);
    }
        printf("prgm execution is over\n");

    return 0;
}
```

```
Enter a character: A
A is uppercase.
prgm execution is over
```

6. WAP to check for Special character.

main.c

```c
#include <stdio.h>

int main() {

    char ch;
    printf("enter a character ");
    scanf("%c",&ch);

    if((ch >='A' && ch<='Z')||(ch >='a' && ch<='z'))
    {
       printf("%c is albhabet ",ch);
    }
    else if(ch >= '0' && ch <='9')
    {
     printf("%c is numeric ",ch);
    }
    else{
        printf("%c is special character ",ch);
    }

    return 0;
}
```

```
enter a character %
% is special character
```

WAP to calculate the electricity bill based on the formula mentioned below

Calculations
To calculate your electricity bill, follow these steps:
Watts = (amps) x (volts)

Kilowatt-hours = (watts) x (usage) / 1000.

Cost = (kilowatt-hours) x (electricity rate)

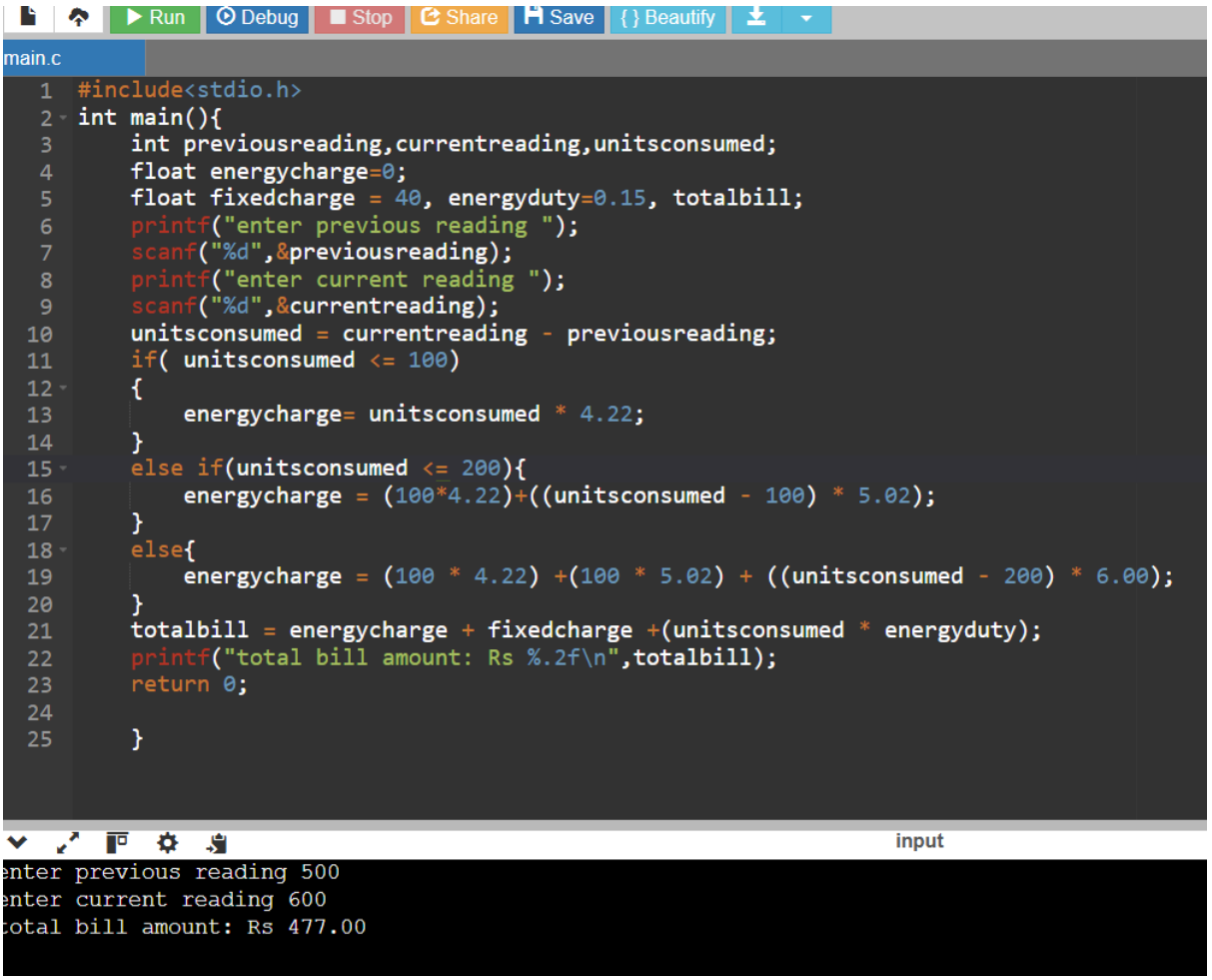
1. Subtract the current meter reading from the previous month's reading to find the energy consumption.

2. Multiply the units consumed by the per-unit charges based on the applicable slabs (e.g., Rs. 4.22 for 1-100 units,
Rs. 5.02 for 101-200 units).

3. Add the fixed charge and energy duty (e.g., Rs. 40 fixed charge and Rs. 0.15 per unit) to the energy charges.

4. The sum of the energy charges, fixed charge, and energy duty gives you the total bill amount.

Example: If you consumed 250 units with the applicable slabs mentioned above, the energy charges would be Rs. 1218.
Adding the fixed charge and energy duty, the total bill amount would be Rs. 1296



1. WAP to print Fibonacci Series up to a Given Number.

main.c

```c
#include <stdio.h>

int main() {
    int n;
    printf("Enter the number");
    scanf("%d", &n);

    int a = 0, b = 1, next = 0;

    printf("Fibonacci Series up to %d: ", n);

    while (next <= n) {
        printf("%d ", next);
        a = b;
        b = next;
        next = a + b;
    }

    return 0;
}
```

```
Enter the number5
Fibonacci Series up to 5: 0 1 1 2 3 5
```

2. WAP to print factorial of a number.

main.c

```c
#include <stdio.h>

int main() {
    int num, factorial = 1;

    printf("Enter a number to calculate its factorial: ");
    scanf("%d", &num);

    int i = 1;
    while (i <= num) {
        factorial *= i;
        i++;
    }

    printf("Factorial of %d is %d\n", num, factorial);

    return 0;
}
```

```
Enter a number to calculate its factorial: 4
Factorial of 4 is 24
```

3. WAP to check whether the number is Prime or not.

main.c

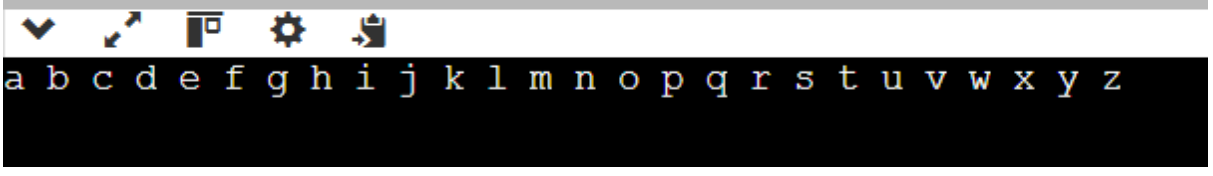
```c
#include <stdio.h>

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

    if (num <= 1) {
        printf("%d is not a prime number.\n", num);
    } else {
        int i = 2;

        while (i * i <= num) {
            if (num % i == 0) {
                printf("%d is not a prime number.\n", num);
                return 0;
            }

            i++;
        }

        printf("%d is a prime number.\n", num);
    }

    return 0;
}
```

```
Enter a number: 20
20 is not a prime number.
```

4. WAP to print lower case alphabets.

main.c

```c
#include <stdio.h>

int main() {
    char ch ='a';

    while (ch <= 'z') {
        printf("%c ", ch);
        ch++;
    }

    printf("\n");
    return 0;
}
```



```
a b c d e f g h i j k l m n o p q r s t u v w x y z
```