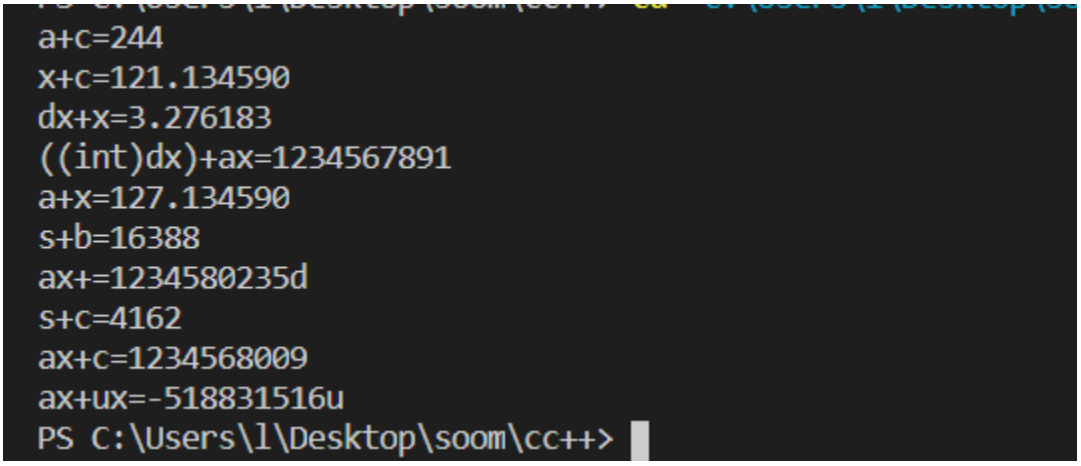
Assignment-3

Q1. **Display multiple variables**

```
#include<stdio.h>

int main()

{

    int a =125,b= 12345;

    long ax=1234567890;

    short s=4043;

    float x=2.13459;

    double dx=1.1415927;

    char c='w';

    unsigned long ux=2541567890;

    printf("a+c=%d\n",a+c);

    printf("x+c=%f\n",x+c);

    printf("dx+x=%f\n",dx+x);

    printf("((int)dx)+ax=%d\n",((int)dx)+ax);

    printf("a+x=%f\n",a+x);

    printf("s+b=%d\n",s+b);

    printf("ax+=%id\n",ax+b);
```

```
    printf("s+c=%hd\n",s+c);
    printf("ax+c=%d\n",ax+c);
    printf("ax+ux=%iu\n",ax+ux);
    return 0;
}
```

OUTPUT-

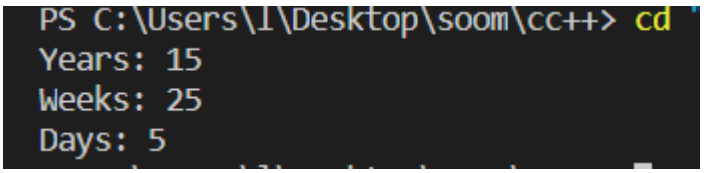


Q2. **Convert specified days into years, weeks and days**.

```
#include <stdio.h>
int main()
{
    int days, years, weeks;
    days = 5655;
    years = days/365;
```

```
    weeks = (days % 365)/7;

    days = days- ((years*365) + (weeks*7));

    printf("Years: %d\n", years);

    printf("Weeks: %d\n", weeks);

    printf("Days: %d \n", days);


    return 0;

}
```

OUTPUT-

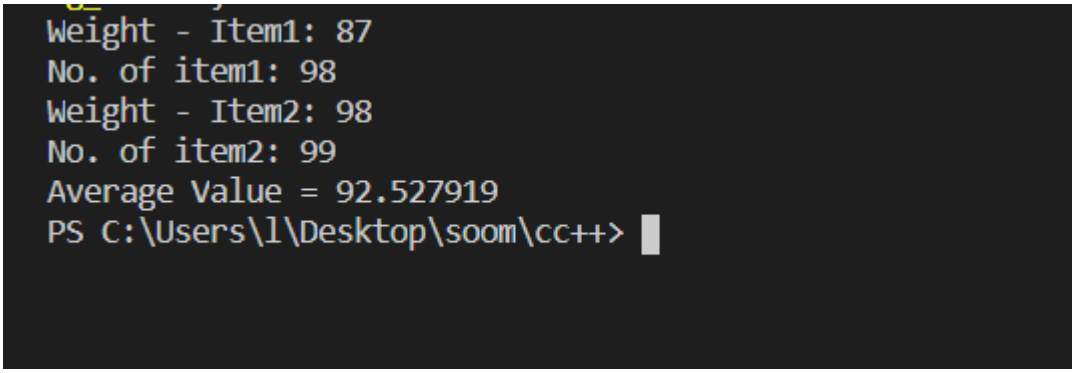


Q3. **Accepts two item’s weight (floating points' values) and number of purchase (floatingpoints' values) and calculate the average value of the items**

```
#include <stdio.h>

int main()

  {

    double wi1, ci1, wi2, ci2, result;

    printf("Weight - Item1: ");
```

```
    scanf("%lf", &wi1);
    printf("No. of item1: ");
    scanf("%lf", &ci1);
    printf("Weight - Item2: ");
    scanf("%lf", &wi2);
    printf("No. of item2: ");
    scanf("%lf", &ci2);
    result = ((wi1 * ci1) + (wi2 * ci2)) / (ci1 + ci2);
    printf("Average Value = %f\n", result);
    return 0;
}
```

OUTPUT-

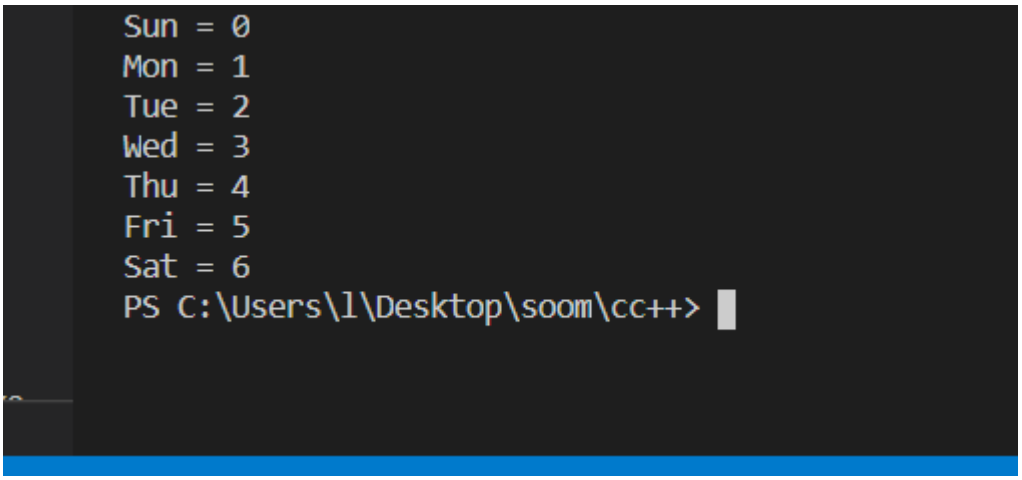


Q4**. Create enumerated data type for 7 days and display their values in** integer constants.

```
#include <stdio.h>
```

```
int main()
{
enum week{Sun, Mon, Tue, Wed, Thu, Fri, Sat};
printf("Sun = %d", Sun);
printf("\nMon = %d", Mon);
printf("\nTue = %d", Tue);
printf("\nWed = %d", Wed);
printf("\nThu = %d", Thu);
printf("\nFri = %d", Fri);
printf("\nSat = %d", Sat);
return 0;
}
```

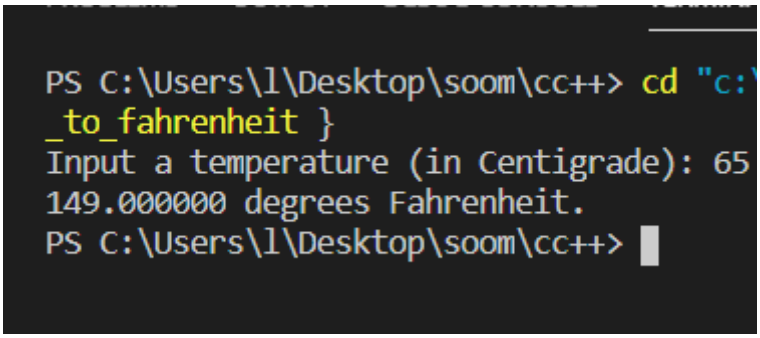
OUTPUT-



Q5**. Converts Centigrade to Fahrenheit**

```
#include <stdio.h>

float temp_f;

float temp_c;

char line_text[50];


int main() {

    printf("Input a temperature (in Centigrade): ");

    fgets(line_text, sizeof(line_text), stdin);

    sscanf(line_text, "%f", &temp_c);


    temp_f = ((9.0 / 5.0) * temp_c) + 32.0;

    printf("%f degrees Fahrenheit.\n", temp_f);


    return(0);

}
```

OUTPUT-

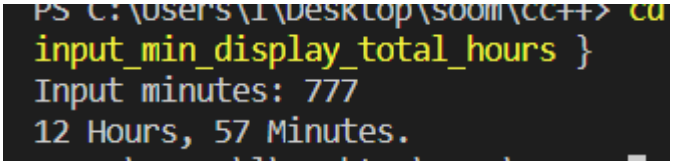


Q6**. Takes minutes as input, and display the total number of hours and minutes**

```
#include <stdio.h>
int tot_mins;
int hrs;
int mins;
const int MINaHOUR = 60;
char line_text[50];
int main()
{
    printf("Input minutes: ");
    fgets(line_text, sizeof(line_text), stdin);
    sscanf(line_text, "%d", &tot_mins);

    hrs = (tot_mins / MINaHOUR);
    mins = (tot_mins % MINaHOUR);

    printf("%d Hours, %d Minutes.\n", hrs, mins);

    return(0);
```

}

OUTPUT-

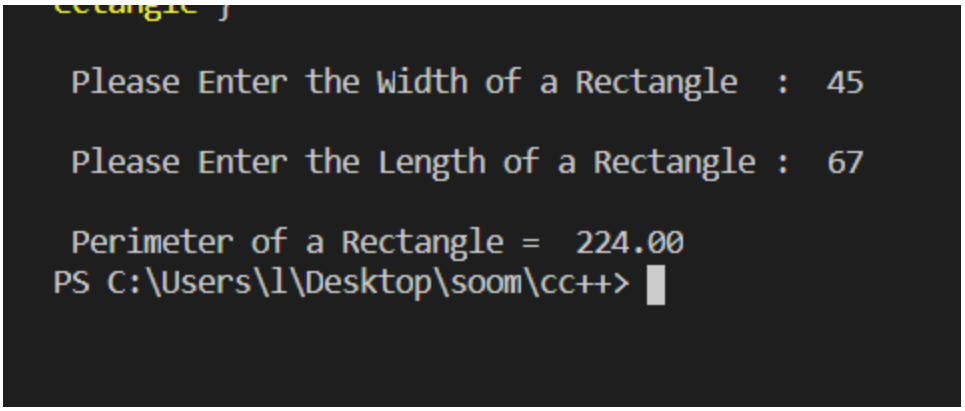


Q7**. Prints the perimeter of a rectangle to take its height and width as input.**

```
#include<stdio.h>

int main()

{

    float width, length, Perimeter;


    printf ("\n Please Enter the Width of a Rectangle  :  ");

    scanf ("%f",&width);


    printf ("\n Please Enter the Length of a Rectangle :  ");

    scanf ("%f",&length);


    Perimeter = 2 * (length + width);


    printf("\n Perimeter of a Rectangle =  %.2f", Perimeter);
```

```
    return 0;
}
```

OUTPUT-

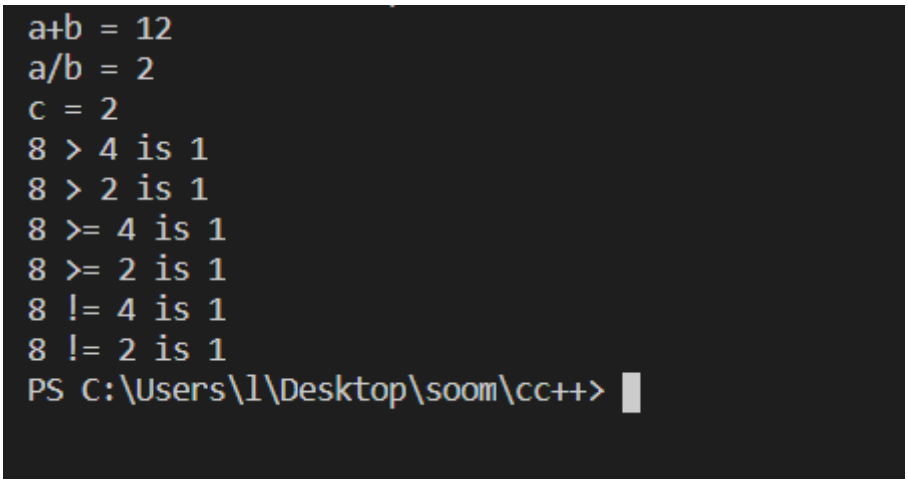


Q8. **By using +, /, %=, >=, ! operators.**

```
#include <stdio.h>
int main()
{
    int a = 8,b = 4, c=4;


    c = a+b;
    printf("a+b = %d \n",c);
    c = a/b;
    printf("a/b = %d \n",c);
    c %= a;
```

```
    printf("c = %d\n", c);
    printf("%d > %d is %d \n", a, b, a > b);
    printf("%d > %d is %d \n", a, c, a > c);
    printf("%d >= %d is %d \n", a, b, a >= b);
    printf("%d >= %d is %d \n", a, c, a >= c);
    printf("%d != %d is %d \n", a, b, a != b);
    printf("%d != %d is %d \n", a, c, a != c);
    return 0;
}
```

OUTPUT-



Q10. **Find the Size of int, float, double and char**

```
#include <stdio.h>
int main()
{
```

```
    int integerType;
    float floatType;
    double doubleType;
    char charType;
    printf("Size of int: %ld bytes\n",sizeof(integerType));
    printf("Size of float: %ld bytes\n",sizeof(floatType));
    printf("Size of double: %ld bytes\n",sizeof(doubleType));
    printf("Size of char: %ld byte\n",sizeof(charType));
    return 0;
}
```

OUTPUT-