

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);

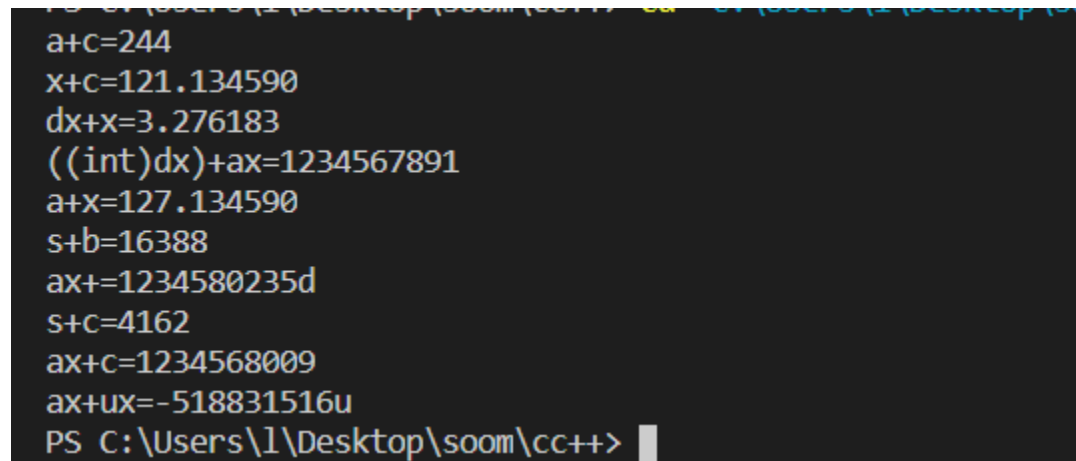
printf("ax+ux=%iu\n",ax+ux);

return 0;

}

```

OUTPUT-



```

a+c=244
x+c=121.134590
dx+x=3.276183
((int)dx)+ax=1234567891
a+x=127.134590
s+b=16388
ax+=1234580235d
s+c=4162
ax+c=1234568009
ax+ux=-518831516u
PS C:\Users\l\Desktop\soom\cc++>

```

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);

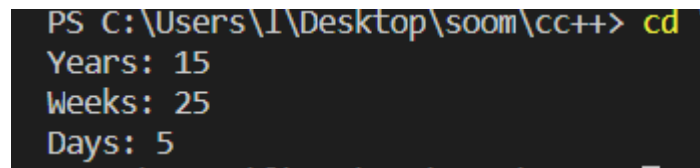
printf("Days: %d \n", days);


return 0;

}

```

OUTPUT-



```

PS C:\Users\I\Desktop\soom\cc++> cd
Years: 15
Weeks: 25
Days: 5

```

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);

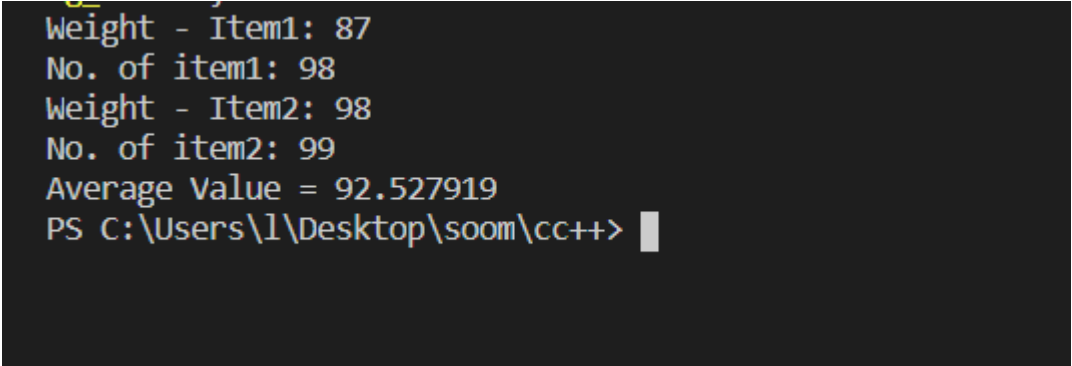
printf("Average Value = %f\n", result);

return 0;

}

```

OUTPUT-



```

Weight - Item1: 87
No. of item1: 98
Weight - Item2: 98
No. of item2: 99
Average Value = 92.527919
PS C:\Users\l\Desktop\soom\cc++>

```

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);

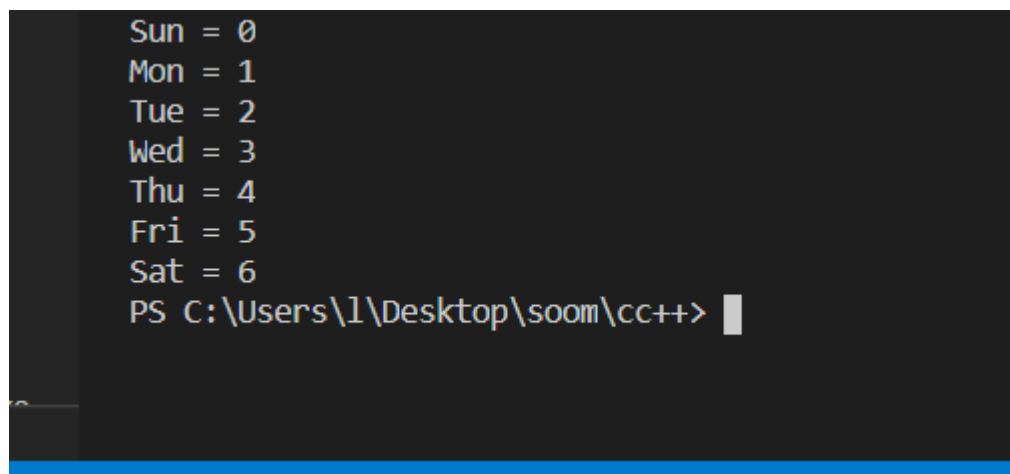
printf("\nFri = %d", Fri);

printf("\nSat = %d", Sat);

return 0;

}
```

OUTPUT-



```
Sun = 0
Mon = 1
Tue = 2
Wed = 3
Thu = 4
Fri = 5
Sat = 6
PS C:\Users\I\Desktop\soom\cc++>
```

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);

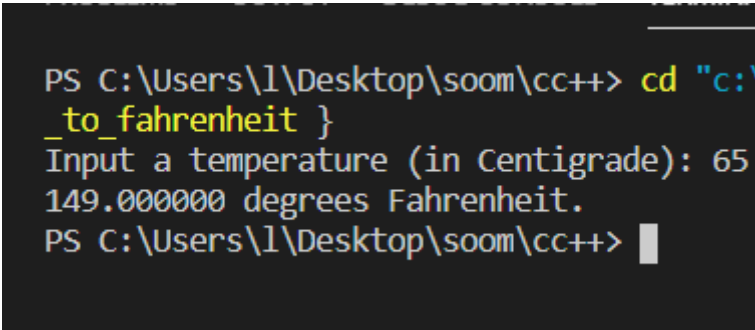
    temp_f = ((9.0 / 5.0) * temp_c) + 32.0;

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

    return(0);

}
```

OUTPUT-



```
PS C:\Users\l\Desktop\soom\cc++> cd "c:\_to_fahrenheit }
PS C:\_to_fahrenheit> 65
149.000000 degrees Fahrenheit.
PS C:\Users\l\Desktop\soom\cc++>
```

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-

```
PS C:\Users\I\Desktop\soom\cc++> cd
input_min_display_total_hours }
Input minutes: 777
12 Hours, 57 Minutes.
```

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-

```
Rectangle j
Please Enter the Width of a Rectangle : 45
Please Enter the Length of a Rectangle : 67
Perimeter of a Rectangle = 224.00
PS C:\Users\l\Desktop\soom\cc++> █
```

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);

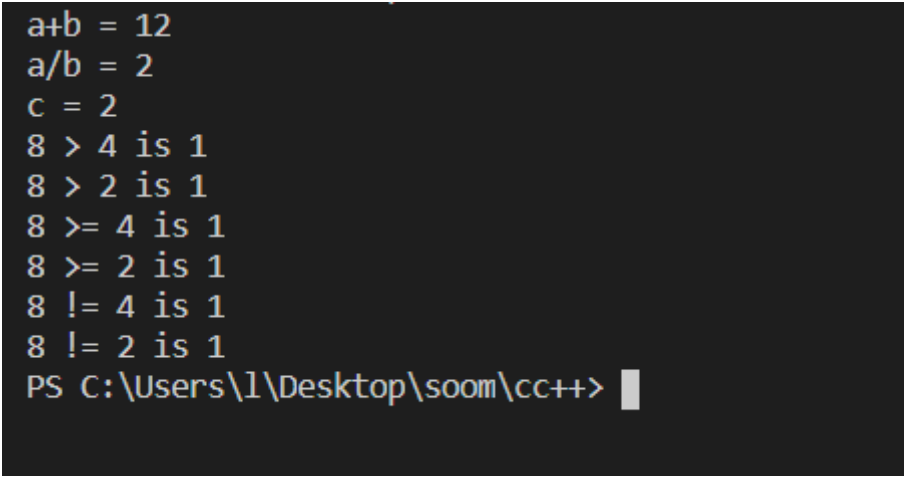
printf("%d != %d is %d \n", a, c, a != c);

return 0;

}

```

OUTPUT-



```

a+b = 12
a/b = 2
c = 2
8 > 4 is 1
8 > 2 is 1
8 >= 4 is 1
8 >= 2 is 1
8 != 4 is 1
8 != 2 is 1
PS C:\Users\l\Desktop\soom\cc++>

```

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));

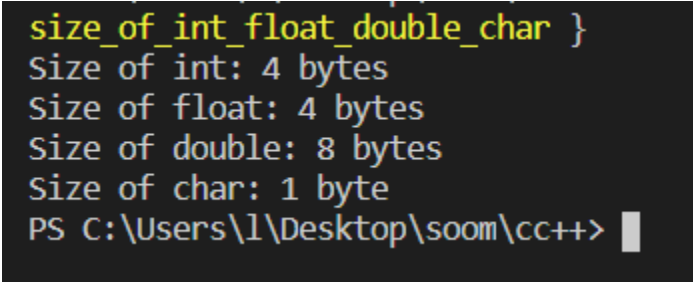
printf("Size of double: %ld bytes\n",sizeof(doubleType));

printf("Size of char: %ld byte\n",sizeof(charType));

return 0;

}
```

OUTPUT-



```
size_of_int_float_double_char }
Size of int: 4 bytes
Size of float: 4 bytes
Size of double: 8 bytes
Size of char: 1 byte
PS C:\Users\l\Desktop\soom\cc++>
```