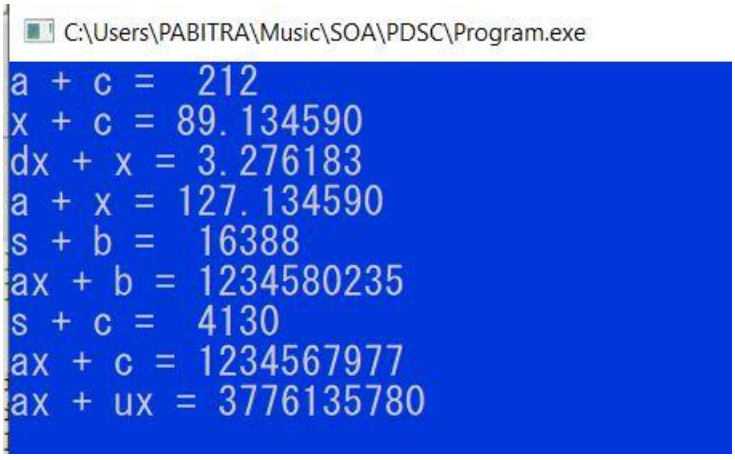
Assignment-3

1. Display multiple variables. Sample Variables ?
a+ c, x + c, dx + x, a + x, s + b, ax + b, s + c, ax + c, ax + ux

Answer =

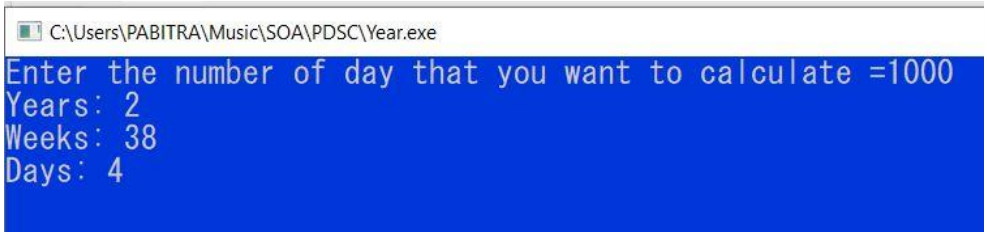
```
#include <stdio.h>
#include<conio.h>
int main()
{
   int a = 125, b = 12345;
   long ax = 1234567890;
   short s = 4043;
   float x = 2.13459;
   double dx = 1.1415927;
   char c = 'W';
   unsigned long ux = 2541567890;

   printf("a + c =  %d\n", a + c);
   printf("x + c = %f\n", x + c);
   printf("dx + x = %f\n", dx + x);
   printf("a + x = %f\n", a + x);
   printf("s + b =  %d\n", s + b);
   printf("ax + b = %ld\n", ax + b);
   printf("s + c =  %hd\n", s + c);
   printf("ax + c = %ld\n", ax + c);
   printf("ax + ux = %lu\n", ax + ux);
   return 0;
}
```



2. Convert specified days into years, weeks and days ?

Answer =

```
#include <stdio.h>
#include<conio.h>
int main()
{
int day, year, week;
printf("Enter the number of day that you want to calculate =");
scanf("%d",&day);
year = day/365;
week = (day % 365)/7;
days = day- ((year*365) + (week*7));
printf("Years: %d\n", year);
printf("Weeks: %d\n", week);
printf("Days: %d \n", day);
return 0;
}
```

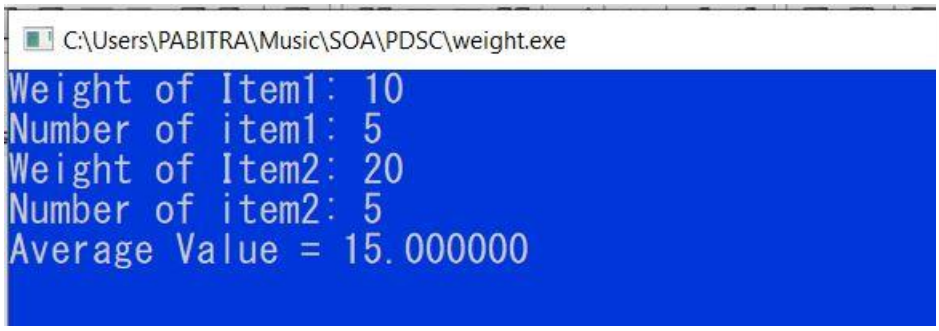


3. Accepts two item’s weight (floating points' values) and number of purchase (floating points' values) and calculate the average value of the items ?

Answer =

```
#include <stdio.h>
#include<conio.h>
int main()
{
double w1, w2, c1, c2, avg_val;
printf("Weight of Item1: ");
scanf("%lf", &w1);
printf("Number of item1: ");
scanf("%lf", &c1);
printf("Weight of Item2: ");
```

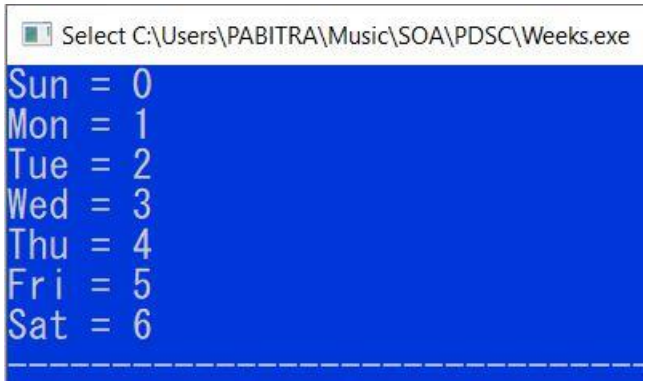
```
scanf("%lf", &w2);
printf("Number of item2: ");
scanf("%lf", &c2);
avg_val = ((w1 * c1) + (w2 * c2)) / (c1 + c2);
printf("Average Value = %f\n", avg_val);
return 0;
}
```



4. Create enumerated data type for 7 days and display their values in integer constants ?

Answer =

```
#include <stdio.h>
#include<conio.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;
}
```



5. Converts Centigrade to Fahrenheit ?

Answer =

```
#include <stdio.h>
#include<conio.h>
float Fahrenheit;
float centigrade;
char line_text[50];
int main() {
printf("Input a temperature in Centigrade = ");
fgets(line_text, sizeof(line_text), stdin);
sscanf(line_text, "%f", & centigrade);
Fahrenheit = ((9.0 / 5.0) * centigrade) + 32.0;
printf("%f degrees Fahrenheit.\n", Fahrenheit);
return(0);
}
```

6. Takes minutes as input, and display the total number of hours and minutes ?

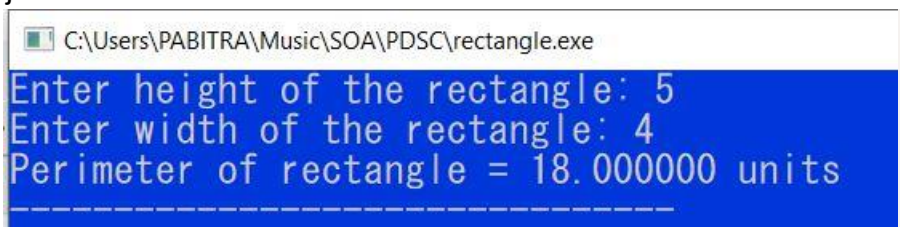
Answer =

```
#include <stdio.h>
#include<conio.h>
int main()
{
int minute;
printf("\n\n\tEnter minutes = ");
scanf("%d",&minute);
printf("\n\t Entered minutes = %d minutes \n\t Which is equivalent to = %d hours and %d minutes",minute,minute/60,minute%60);
return 0;
}
```

7. Prints the perimeter of a rectangle to take its height and width as input ?

Answer =

```
#include <stdio.h>
#include<conio.h>
int main()
{
float height, width, perimeter;
printf("Enter height of the rectangle: ");
scanf("%f", & height);
printf("Enter width of the rectangle: ");
scanf("%f", &width);
perimeter = 2 * (height + width);
printf("Perimeter of rectangle = %f units ", perimeter);
return 0;
}
```

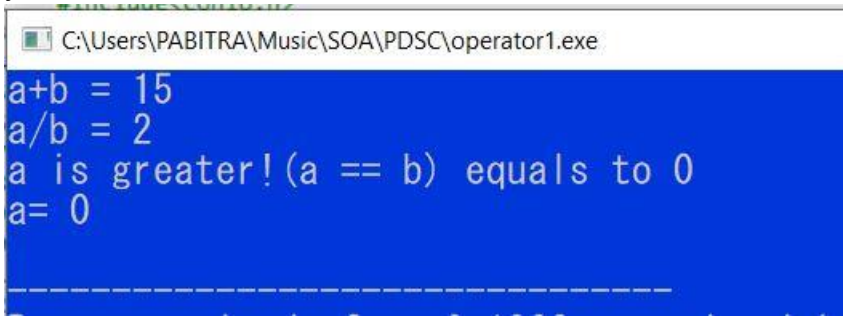


8. By using +, /, %=, >=, ! operators ?

Answer =

```
#include <stdio.h>
#include<conio.h>
int main()
{
int a = 9,b = 4, result, c;
c = a+b;
printf("a+b = %d \n",c);
c = a/b;
printf("a/b = %d \n",c);
if(a>=b)
printf("a is greater");
else
printf("b is greater");
result = !(a != b);
printf("!(a == b) equals to %d \n", result);
a %= b;
```

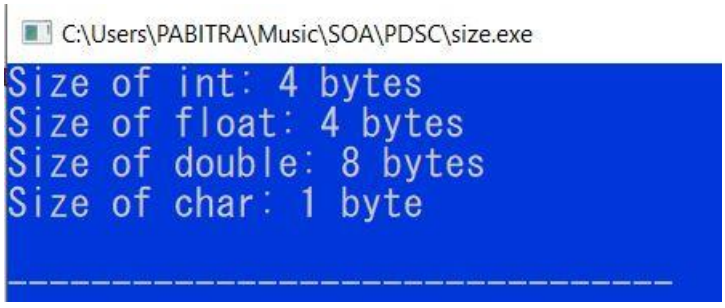
```
printf("a= %d \n",a);
return 0;
}
```



10. Find the Size of int, float, double and char ?

Answer =

```
#include <stdio.h>
#include<conio.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;
}
```



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