ASSIGNMENT – 1

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REGISTER NO: 21BRS1021

SLOT: L31+L32+L49+L50

DATE: 25.02.2022

XYZ Company pays salary to their employees once in 15 days. Find the monthly salary of an employee.

CODE:

```c
1   //register no: 21BRS1021
2   #include <stdio.h>
3
4   int main()
5   {
6       float gratuity,salary;
7       printf("Enter the salary for 15 days:");
8       scanf("%f",&gratuity);
9       salary = 2*gratuity;
10      printf("Monthly Salary of the Employee:%.2f",salary);
11      return 0;
12
13  }
```

OUTPUT:

```
/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VIT (master)
  cd "/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VIT/" && gcc test2.c -o test2 && "/Users/vijayakumarmuthusamy/COLL
EGE/PROGRAMMING/github/C_PROBLEMS_VIT/"test2
Enter the salary for 15 days:1234.56
Monthly Salary of the Employee:2469.12
```

Glass A contains Pepsi and Glass B contains 7Up.
Suggest a way to exchange the contents of glass A & B.

CODE:

```c
1   #include <stdio.h>
2   #include <string.h>
3
4   int main()
5   {
6       char *a = "pepsi";
7       char *b = "7UP";
8       char *temp = b;
9       printf("\nBefore exchange:glass A has %s,glass B has %s",a,b);
10      b = a;
11      a = temp;
12      printf("\nAfter exchange:glass A has %s,glass B has %s",a,b);
13      return 0;
14
15  }
```

OUTPUT:

```
/Users/vijayakumarmuthusamy/Desktop
↳ cd "/Users/vijayakumarmuthusamy/Desktop/" && gcc test.c -o test && "/Users/vijayakumarmuthusamy/Desktop/"test

Before exchange:glass A has pepsi,glass B has 7UP
After exchange:glass A has 7UP,glass B has pepsi
```

Your summer surveying job requires you to study some maps that give distances in kilometers and some that use miles. You and your coworkers prefer to deal in metric measurements. Write a program that performs the necessary conversion.

CODE:

```c
1   #include <stdio.h>
2
3   int main()
4   {
5       float km,miles,km_to_meters,miles_to_meters;
6       printf("enter distance in Km:"); scanf("%f",&km);
7       printf("enter distance in miles:"); scanf("%f",&miles);
8       miles_to_meters = miles * 1.60934;
9       miles_to_meters = miles_to_meters * 1000;
10      km_to_meters = km * 1000;
11      printf("\nGiven %.2fKm in meters:%.2fm",km,km_to_meters);
12      printf("\nGiven %.2f miles in meters:%.2fm",miles,miles_to_meters);
13      return 0;
14  }
```

OUTPUT:

```
/Users/vijayakumarmuthusamy/Desktop
└ cd "/Users/vijayakumarmuthusamy/Desktop/" && gcc test.c -o test && "/Users/vijayakumarmuthusamy/Desktop/"test
enter distance in Km:3
enter distance in miles:3

Given 3.00Km in meters:3000.00m
Given 3.00 miles in meters:4828.02m
```

Your local bank has many customers who often visit the branch to perform FOREX exchange. A customer can bring any coins (quarters, dimes, nickels, pennies, and US dollars) of any numbers. Calculate the value of money in terms of rupees for each customer.

CODE:

```c
#include <stdio.h>

int main()
{
    int penny,nickel,dime,quarter,half_dollar,cents;
    float dollar,rupees;
    printf("Enter no of pennies:"); scanf("%d",&penny);
    printf("Enter no of nickels:"); scanf("%d",&nickel);
    printf("Enter no of dimes:"); scanf("%d",&dime);
    printf("Enter no of quarter:"); scanf("%d",&quarter);
    printf("Enter no of half dollars:"); scanf("%d",&half_dollar);
    cents = (penny*1)+(nickel*5)+(dime*10)+(quarter*25)+(half_dollar*50);
    dollar = (float)cents/100;
    rupees = dollar * 63.55;
    printf("total amount given:$%.2f exchanged to :₹%.2f",dollar,rupees);
    return 0;
}
```

OUTPUT:

```
/Users/vijayakumarmuthusamy
 └ cd "/Users/vijayakumarmuthusamy/Desktop/" && gcc test.c -o test && "/Users/vijayakumarmuthusamy/Desktop/"test
Enter no of pennies:5
Enter no of nickels:2
Enter no of dimes:3
Enter no of quarter:4
Enter no of half dollars:1
total amount given:$1.95 exchanged to :₹123.92
```

Rahul is charged with a total simple interest of Rs. 4016.25 at the rate of 9 % per annum for 5 years. What is the original amount he has borrowed from the bank?

CODE:

```
1   //register no: 21BRS1021
2   #include <stdio.h>
3
4 v int main()
5   {
6       float simple_interest = 4016.25,principle_amt;
7       int rate = 9, time = 5;
8       principle_amt = (100*simple_interest)/(rate*time);
9       printf("the original amount Rahul borrowed:₹%.2f",principle_amt);
10      return 0;
11
12  }
```

OUTPUT:

```
/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VI
/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VIT (master)
└ cd "/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBL
EMS_VIT/" && gcc test2.c -o test2 && "/Users/vijayakumarmuthusamy/COL
LEGE/PROGRAMMING/github/C_PROBLEMS_VIT/"test2
the original amount Rahul borrowed:₹8925.000000%
```

A cylindrical cake oven with 20 cm as diameter and 10 cm as depth is given to the baker. How much of flour is needed for the baker to prepare the cake batter.

CODE:

```c
//register no: 21BRS1021
#include <stdio.h>
#include <math.h>
int main()
{
    int diameter = 20, depth = 10, radius;
    float volume;
    radius = (float)diameter/2;
    volume = 3.14 * pow(radius,2) * depth;
    printf("The volume of flour needed:%.2f cm^3",volume);
    return 0;
}
```

OUTPUT:

```
/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VIT (master)
 cd "/Users/vijayakumarmuthusamy/COLLEGE/PROGRAMMING/github/C_PROBLEMS_VIT/" && gcc test2.c -o test2 && "/Users/vijayakumarmuthusamy/COLL
EGE/PROGRAMMING/github/C_PROBLEMS_VIT/"test2
The volume of flour needed:3140.00 cm^3
```