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SRI RAMACHANDRA

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Category - I Deemed to be University) Porur, Chennai

SRI RAMACHANDRA ENGINEERING AND TECHNOLOGY

B. Tech. DEGREE
CONTINUOUS ASSESSMENT 4
OCT – 2020: I YEAR – QUARTER 1

CSE 110: Problem Solving – C Programming

(Common to B.Tech CSE - AI & ML, CyS & IoT, AI & DA, B.Tech - CS & MED Engg.,)

Time: 1 hour – 15 minutes

Maximum Mark: 15

Date: 15/10/2020

Problem Statement:

Implement the logic using C language and develop the code for the problem statement.

Term deposits have to computed for as given below:

Interest rate for Customer age above 60 years.

| Year | Interest | Maximum Amount |
|------|----------|-----------------|
| 1 | 6% | Rs. 5, 00, 000 |
| 3 | 6.8% | Rs. 10, 00, 000 |
| 5 | 7.5% | Rs. 15, 00, 000 |

Description of task:

My task for the given problem statement was to develop code for interest calculation after reading required inputs from the user. For the age above 60 years

Interest calculation is given by the formula as follows:

Final_amount = principal_amount + (number_of_years* rate_of_interest* principal_amount)

This calculation has been done and the final answer along with the details of the customer is displayed and integrate with the main()

Program:

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

```
struct bank
```

```
{
```

```
    int yr,age;
```

```
    float rate,amt,p,final_r;
```

```
    char name[50];
```

```
}b;
```

```
void cal_display(struct bank b)
```

```
{
```

```
    b.p=b.amt+(b.yr*b.rate*b.amt);
```

```
    b.final_r=b.rate*100;
```

```
    printf("\n\n");
```

```
    printf("\nCustomer Name: %s",b.name);
```

```
    printf("\nAge: %d",b.age);
```

```
    if(b.yr>=60) printf(" (Senior Citizen)");
```

```
    printf("\nAmount Deposit: %.2f",b.amt);
```

```

printf("\nRate Of Interest: %.1f",b.final_r);

printf("\nThe Final amount is: %.2f",b.p);

}

void main()

{

    printf("Enter customer name: ");

    gets(b.name);

    printf("Enter your age: ");

    scanf("%d",&b.age);


    if(b.age<60)

    {

        printf("\n\n");

        printf("YEAR\tINTEREST\tMAXIMUM AMT\n");

        printf(" 1\t 5%\t\t<=5L\n");

        printf(" 3\t 8%\t\t>5L&<=10L\n");

        printf(" 5\t 6.5%\t\t>10L&<=15L\n");

```

```
printf("\n\nEnter the number of years of deposit: ");

scanf("%d",&b.yr);

switch(b.yr)

{

    case 1: b.rate=0.05;

        printf("Enter the amount to deposit: ");

        scanf("%f",&b.amt);

        cal_display(b);

        break;

    case 3: b.rate=0.058;

        printf("Enter the amount to deposit: ");

        scanf("%f",&b.amt);

        cal_display(b);

        break;

    case 5: b.rate=0.065;

        printf("Enter the amount to deposit: ");
```

```

        scanf("%f",&b.amt);

        cal_display(b);

        break;

default: printf("INVALID");

    }

}

else

{

    printf("\n\n");

    printf("For Senior Citizens: ");

    printf("\n\n");

    printf("YEAR\tINTEREST\tMAXIMUM AMT\n");

    printf(" 1\t 5%\t\t<=5L  \n");

    printf(" 3\t 8%\t\t>5L&<=10L \n");

    printf(" 5\t 6.5%\t\t>10L&<=15L\n");

    printf("\n\nEnter the number of years of deposit: ");

    scanf("%d",&b.yr);

```

```
switch(b.yr)

{

    case 1: b.rate=0.06;

        printf("Enter the amount to deposit: ");

        scanf("%f",&b.amt);

        cal_display(b);

        break;


    case 3: b.rate=0.068;

        printf("Enter the amount to deposit: ");

        scanf("%f",&b.amt);

        cal_display(b);

        break;


    case 5: b.rate=0.075;

        printf("Enter the amount to deposit: ");

        scanf("%f",&b.amt);

        cal_display(b);
```

```
break;
```

```
default: printf("INVALID");
```

```
}
```

```
}
```

```
}
```


Output:

```
C:\Users\aksha_fhy2u73\OneDrive\Documents\E0120012 Akshaya_Vishnu.exe
Enter customer name: Elena
Enter your age: 60

For Senior Citizens:

YEAR      INTEREST      MAXIMUM AMT
1          5             <=5L
3          8             >5L&<=10L
5          6.5         >10L&<=15L

Enter the number of years of deposit: 3
Enter the amount to deposit: 700000

Customer Name: Elena
Age: 60 (Senior Citizen)
Amount Deposit: 700000.00
Rate Of Interest: 6.8
The Final amount is: 842800.00
-----
Process exited after 961.4 seconds with return value 31
Press any key to continue . . . _
```

