Assignment 1

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Input:

```c
#include <stdio.h>

 float calregularservice(float min); // This function is to calculate
charges for regular service
 float calpremiumservice(float daymin, float nightmin); // This
function is to calculate charges for premium service


        int main(void) {
        long int acc_num;  // Intitialize account number with the
data type of 'long int'
        char service_code;  // Intialize service code with data type
of char
        float min;              // Intialize minutes with the data type of
float
        float daymin=0,nightmin=0; // Initialize daymin and
nightmin to 0

        printf("Enter account Number: "); // Ask the user to enter
his/her account number
        scanf("%ld",&acc_num);
        printf("Enter a service code (P for premium and R for
regular): "); // Ask the user for his/her service code wether
he/her is holding a premium type or a regular type
        scanf(" %c",&service_code);
```

```c
// Check for a valid service code, return 1 if invalid
    if (service_code != 'P' && service_code != 'p' &&
service_code != 'R' && service_code != 'r') {
    printf("Invalid service code\n");
    return 1;
    }


    // If the user is holding a premium service code ask
him/her to enter the number of minutes used from day to
night,and also ask him/her to enter the number of minutes used
from night to day

    if (service_code=='P'||service_code=='p') {
    printf("Enter the number of minutes the service was used
during the day (6:00 a.m. to 6:00 p.m): ");
    scanf("%f", &daymin);
    printf("Enter the number of minutes the service was used
during the night (6:00 p.m. to 6:00 a.m): ");
    scanf("%f", &nightmin);
    }



    // Display the information and details of premium      type
holder

    if (service_code == 'P' || service_code == 'p') {
        printf("Account Number: %ld\n", acc_num);
    printf("Your Type of Service is Premium\n");
    printf("The Total number of telephone service was used:
%f\n", daymin + nightmin);
    printf("The amount due from the user: $%.2f\n",
calpremiumservice(daymin, nightmin));
    }
```

```c
    // If the user is holding a regular type service ask the user
to enter the number of minutes the service was used

    if (service_code == 'R' || service_code == 'r') {
    printf("Enter the total number of minutes the service was
used: "); // Ask the user to enter the number of minutes the
service was used

    scanf("%f", &min);
  printf("Account Number: %ld\n", acc_num);
    printf("Your Type of Service is Regular\n");
    printf("The Total number of telephone service was used:
%f\n", min);
    printf("The amount due from the user: $%.2f\n",
calregularservice(min));
    }

    return 0;
}

float calregularservice(float min) { // Function defination
    if (min <= 50) { // If the number of minutes are less 50 the
intial charges will be 10 dollars
    return 10.00;
    } else {  // if the user keep talking for more than 50
minutes,then add 10 dollars in minutes subtract it from 50 and
multiply the amount due with 0.20.

    min -= 50;
    return 10.00+min*0.20;
    }
}

float calpremiumservice(float daymin,float nightmin) {
    float daycharge=0, nightcharge=0;
```

```
        if (daymin>75) { // If the premium type user talks more
than 75 minutes from day to night,add 25 dollars with his
minutes.

        daycharge=(daymin-75)*0.10;
        }

        if (nightmin>100) { // if user talks more than 100 minutes
from night to day add 25 dollars with total minutes and subtract
it from 100,multiply it with 0.05 and store the total cost in night
charge

        nightcharge=(nightmin-100)*0.05;
        }

        return 25.00+daycharge+nightcharge; // return the total
amount
}
```

Output:

```
taha@taha-Latitude-7280:~/Desktop$ ./a.out
Enter account Number: 0333333333333
Enter a service code (P for premium and R for regular): R
Enter the total number of minutes the service was used: 45
Account Number: 333333333333
Your Type of Service is Regular
The Total number of telephone service was used: 45.000000
The amount due from the user: $10.00
taha@taha-Latitude-7280:~/Desktop$
```

```
taha@taha-Latitude-7280:~/Desktop$ ./a.out
Enter account Number: 03333333333
Enter a service code (P for premium and R for regular): p
Enter the number of minutes the service was used during the day (6:00 a.m. to 6:
00 p.m): 90
Enter the number of minutes the service was used during the night (6:00 p.m. to
6:00 a.m): 1200
Account Number: 3333333333
Your Type of Service is Premium
The Total number of telephone service was used: 1290.000000
The amount due from the user: $81.50
taha@taha-Latitude-7280:~/Desktop$
```

```
taha@taha-Latitude-7280:~/Desktop$ ./a.out
Enter account Number: 030000000000
Enter a service code (P for premium and R for regular):
p
Enter the number of minutes the service was used during the day (6:00 a.m. to 6:
00 p.m): 560
Enter the number of minutes the service was used during the night (6:00 p.m. to
6:00 a.m): 1200
Account Number: 30000000000
Your Type of Service is Premium
The Total number of telephone service was used: 1760.000000
The amount due from the user: $128.50
taha@taha-Latitude-7280:~/Desktop$
```