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Section: : **CS-1B**

Practice Problem 10

Task 1:

Code:

```c
#include<stdio.h>

void calculate_prime(int number);

int main()
{
  int number;
  printf("Enter number:");
  scanf("%d",&number);

  calculate_prime(number);

  return 0;
}

void calculate_prime(int number)
{
  int count = 0;
  for (int i = 1; i <= number; i++)
  {
   if (number % i == 0)
   {
     count++;
```

```
    }
  }

  if (count == 2)
  {
    printf("Prime");
  }
  else
  {
    printf("Not prime");
  }
}
```

Output:


```
muhammad@muhammad-Latitude-5490:~/Desktop$ gcc pflabtask10a.c
muhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter number:2
Primemuhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter number:6
Not primemuhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter number:13
Primemuhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter number:83
Primemuhammad@muhammad-Latitude-5490:~/Desktop$
```

Task 3:

Code:

```
#include<stdio.h>
int calculate_factorial(int num);

int main()
{
  int num ;
  printf("Enter num:");
```

```c
    scanf("%d",&num);
    calculate_factorial( num);


     return 0;
}
int calculate_factorial(int num)
{
  int result =1;
  for(int i=2; i<=num; i++)
    {


       result *=i;


    }
    printf("factorial is %d\n", result );
    }
```

Output:

Task 2:

Code:

```c
#include<stdio.h>
int sum_of_book (int first, int last, int skip);


int main()
```

```c
{
int first, last, skip;
printf("Enter the start number of book:");
scanf("%d",&first);

printf("Enter the Last no of book:");
scanf("%d", &last);

printf("Enterthe no of books you want to skip:");
scanf("%d",&skip);

int result =sum_of_book(first,last, skip);
 printf("Sum of number of books is %d\n", result);

return 0;
}

int sum_of_book (int first, int last, int skip){
int sum=0;


for(; first<=last; first+=skip+1){

    sum+=first;

}
return sum;

}
```

Output:

```
muhammad@muhammad-Latitude-5490:~/Desktop$ gcc a1.c
muhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter the start number of book:10
Enter the Last no of book:20
Enterthe no of books you want to skip:3
Sum of number of books is 42
muhammad@muhammad-Latitude-5490:~/Desktop$
```

Task 4:

Code:

```c
#include <stdio.h>

void print_the_Menu_of_restaurant();

int main() {
    int item_no, quantity;
    char continue_the_order;
    float totalBill = 0.0;

    printf("Welcome to Our Restaurant!\n");

    do {
        print_the_Menu_of_restaurant();

        printf("Enter the item number you want to order: ");
        scanf("%d", &item_no);

        if (item_no >= 1 && item_no <= 5) {
            printf("Enter the quantity: ");
            scanf("%d", &quantity);

            if (item_no == 1)
                totalBill += quantity * 5.99;
            else if (item_no == 2)
                totalBill += quantity * 7.99;
            else if (item_no == 3)
                totalBill += quantity * 4.49;
            else if (item_no == 4)
                totalBill += quantity * 8.99;
            else if (item_no == 5)
                totalBill += quantity * 1.99;
```

```c
        printf("Item added to your order.\n");
    } else {
        printf("Invalid item number.\n");
    }


    printf("Do you want to order more items? (Y/N): ");
    scanf(" %c", &continue_the_order);
} while (continue_the_order == 'Y' || continue_the_order == 'y');


printf("Thank you fororder!\n");
printf("Total Bill: $%f\n", totalBill);


return 0;
}
void print_the_Menu_of_restaurant() {
    printf("\t***Menu of restaurant:***\n\n");
    printf("1) Burger price is = $5.99\n");
    printf("2) Pizza price is = $7.99\n");
    printf("3) Salad price is = $4.49\n");
    printf("4) Pasta price is = $8.99\n");
    printf("5) Soda price is = $1.99\n");
}
```

Output: