Assignment2

Q1

//using scanf()

/*Accept the price from user. Ask the user if he is a student (user may say yes or no). If he is a student and he has purchased more than 500 than discount is 20% otherwise discount is 10%.But if he is not a student then if he has purchased more than 600 discount is 15% otherwise there is not discount*/

```c
#include<stdio.h>
void main(){
        float bill,dis;

        printf("\n 1.student \n 2. not a student");

        int user;
        printf("Enter the user num:");
        scanf("%d",&user);

        printf("\nEnter the bill:");
        scanf("%f",&bill);
        float bill_ini=bill;

        if(user==1){
                if(bill>500){
                        dis=bill*0.2;
                        bill=bill-dis;
                }
                else{
                        dis=bill*0.1;
                        bill=bill-dis;
                }
        }else{
```

```c
                if(user==2){
                        if(bill>600){
                                dis=bill*0.15;
                                bill=bill-dis;
                        }
                        else{
                                printf("no discount");
                        }
                }
                else{
                        printf("invalid inputs");
                }
        }

        printf("\n the original bill is Rs. %f and after dis is Rs. %f",bill_ini,bill);

}
```
....

Q2

```c
//using scanf()
//greatest no. among 3
#include<stdio.h>
void main(){

        int num1,num2,num3;

        printf("Enter num1:");
        scanf("%d",&num1);
        printf("\nEnter num2:");
        scanf("%d",&num2);
        printf("\nEnter num3 :");
```

```c
        scanf("%d",&num3);


        if(num1>num2){
                if(num1>num3){
                        printf("\nnum1 is greatest %d",num1);
                }
                else{
                        printf("\nnum2 is greatest %d",num2);
                }
        }
        else{
                if(num2>num3){
                                printf("\nnum2 is greatest %d",num2);
                }
                else{
                        printf("\nnum3 is greatest %d",num3);
                }
        }



}
```
•••

Q3.1

//using scanf()//Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desiredoperations.(without using scanf)

```c
#include<stdio.h>

void main(){
        char sign;
        int num1,num2,res;


        printf("Enter num1 :");
```

```c
scanf("%d",&num1);

printf("Enter num2 :");
scanf("%d",&num2);

//when we use scanf with %c have to clear the buffer (\n \t enter tab space  etc)
fflush(stdin);//to clean the buffer
printf("Enter the sign:");
scanf("%c",&sign);

if(sign=='+'){
        res=num1+num2;
}
else{
            if(sign=='-'){
                    res=num1-num2;
            }
            else{
                        if (sign=='/'){
                                res=num1/num2;
                        }
                        else{
                                    if(sign=='*'){
                                            res=num1*num2;
                                    }
                                    else{
                                                if(sign=='%'){
                                                        res=num1%num2;
                                                }
                                                else{
```

```
                                                    printf("Invalid
Inputs");
                                                }
                                            }
                                        }
                                    }
                                }


                printf("the operator is %c and the num1 is %d and num2 is %d result is
%d",sign,num1,num2,res);

}
```
••

Q3.2

//using scanf

//Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desiredoperations.(without scanf)

#include<stdio.h>

void main(){

```
        printf("\n 1.add \n 2. sub \n 3.div \n 4.mul \n 5.mod \n\n");

        int num1,num2,res;

        int choice;


        printf("Enter num1:");

        scanf("%d",&num1);


        printf("Enter num2");

        scanf("%d",&num2);


        printf("Enter choice:");

        scanf("%d",&choice);


        if(choice==1){

                res=num1+num2;
```

```c
        }else{
                if(choice==2){
                        res=num1-num2;
                }
                else{
                        if(choice==3){
                                res=num1/num2;
                        }
                        else{
                                if(choice==4){
                                        res=num1/num2;
                                }else{
                                        if(choice==5){
                                                res=num1%num2;
                                        }
                                        else{
                                                printf("\nInvalid Inputs");
                                        }
                                }
                        }
                }
        }

        printf("\n the choice is %d and num1 is %d num2 is %d res is %d",choice,num1,num2,res);
}
```

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Q4

//using scanf

//4. Display a menu to the user (like 1.Even Odd 2. Basic salary etc), ask the user to enter his choice,then based on that perform the desired operations

#include<stdio.h>

```c
void main(){

    int choice=2;
    printf("1.even odd \n 2.basic_salary");

    printf("\nEnter the choice:");
    scanf("%d",&choice);

    int num;
    float basic_s,total;
    float da,ta,hra;

    if(choice==1){

        printf("\nEnter the number to check even odd :");
        scanf("%d",&num);

            if(num%2==0)
            {
            printf("\neven number");
            }
            else{
                    printf("\nodd number");
            }
```

```c
        }else{
                if(choice==2){

                        printf("\nEnter the basic salary:");
                        scanf("%f",&basic_s);

                                if(basic_s<=5000){
                                        da=basic_s*0.1;
                                        ta=basic_s*0.2;
                                        hra=basic_s*0.25;
                                }
                                else{
                                        da=basic_s*0.15;
                                        ta=basic_s*0.20;
                                        hra=basic_s*0.25;
                                }

                                total=basic_s+da+ta+hra;
                                printf("\nThe basic salary is %f and the total is %f",basic_s,total);
                }
                else{
                        printf("\nInvalid inputs");
                }
        }
}
```

....

Q5

```c
//using scanf()
/*Accept the price from user. Ask the user if he is a student (user may say yes or
no). If he is a student and he has purchased more than 500 than discount is 20%
otherwise discount is 10%.But if he is not a student then if he has purchased
```

more than 600 discount is 15% otherwise there is not discount*/

```c
#include<stdio.h>
void main(){
        float bill,dis;

        printf("\n 1.student \n 2. not a student");

        int user;
        printf("Enter the user num:");
        scanf("%d",&user);

        printf("\nEnter the bill:");
        scanf("%f",&bill);
        float bill_ini=bill;

        if(user==1){
                        if(bill>500){
                                dis=bill*0.2;
                                bill=bill-dis;
                        }
                        else{
                                dis=bill*0.1;
                                bill=bill-dis;
                        }
        }else{
                        if(user==2){
                                        if(bill>600){
                                                dis=bill*0.15;
                                                bill=bill-dis;
                                        }
                                        else{
```

```c
                    printf("no discount");
                }
            }
            else{
                printf("invalid inputs");
            }
        }


    printf("\n the original bill is Rs. %f and after dis is Rs. %f",bill_ini,bill);



}
```
****