

# Assignment 1

## Using 'if' and 'switch' structures



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(Q1)

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

```
int main()
```

```
{
```

```
    int No1,No2;
```

```
    printf("Enter a first number:\n");
```

```
    scanf(" %d",&No1);
```

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

```
    printf("Enter a second number:\n");
```

```
    scanf(" %d",&No2);
```

```
    if(No1 > No2)
```

```
    {
```

```
        printf("\nHighest number is %d",No1);
```

```
    }
```

```
    else
```

```
    {
```

```
        printf("\nHighest number is %d",No2);
```

```
    }
```

```
    return 0;
```

```
}
```

(Q2)

```
#include <stdio.h>

int main()
{
    int No1,No2,No3;
    printf("Enter a first number:\n");
    scanf(" %d",&No1);
    printf("\nEnter a second number:\n");
    scanf(" %d",&No2);
    printf("\nEnter a third number:\n");
    scanf(" %d",&No3);

    if(No1 > No2 && No1 > No3)
    {
        printf("\nHighest number is %d",No1);
        if(No2 < No3)
        {
            printf("\nLowest number is %d",No2);
        }
        else
        {
            printf("\nLowest number is %d",No3);
        }
    }
    else if(No2 > No1 && No2 > No3)
    {
        printf("\nHighest number is %d",No2);
```

```
if(No1 < No3)
{
    printf("\nLowest number is %d",No1);
}
else
{
    printf("\nLowest number is %d",No3);
}
}
else
{
    printf("\nHighest number is %d",No3);
    if(No1 < No2)
    {
        printf("\nLowest number is %d",No1);
    }
    else
    {
        printf("\nLowest number is %d",No2);
    }
}
return 0;
}
```

(Q3)

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

```
int main()
```

```
{
```

```
    int NewSalary,BasicSalary;
```

```
    char name[20];
```

```
    printf("Enter the employer name:\n");
```

```
    scanf("%s",&name);
```

```
    printf("Enter the Basic Salary:\n");
```

```
    scanf("%d",&BasicSalary);
```

```
    if (BasicSalary<5000){
```

```
        NewSalary = BasicSalary * 5/100;
```

```
        NewSalary = BasicSalary + NewSalary;}
```

```
    else if(BasicSalary>=5000 & BasicSalary<10000){
```

```
        NewSalary = BasicSalary * 10/100;
```

```
        NewSalary = BasicSalary + NewSalary;}
```

```
    else {
```

```
        NewSalary = BasicSalary * 15/100;
```

```
        NewSalary = BasicSalary + NewSalary;}
```

```
    printf("Employer name is: %s \nYour New Salary is: %i", name,NewSalary);
```

```
    return 0;
```

```
}
```

(Q4)

```
#include<stdio.h>
int main()
{
    char Name;
    char Area;
    int Service,Sales;
    float BasicSalary,NewSalary,MonthlySales;

    printf("Enter your Name\n");
    scanf(" %s",&Name);

    printf("Enter your BasicSalary\n");
    scanf("%f",&BasicSalary);

    printf("Enter your Area\n");
    scanf(" %s",&Area);

    printf("Your number of years of Service\n");
    scanf("%d",&Service);

    printf("Number of Sales\n");
    scanf("%d",&Sales);

    NewSalary=BasicSalary;

    if(Service>5 ){
        NewSalary = NewSalary + (NewSalary * 10/100) ;

    }
    if(Area=='C'){
        NewSalary = NewSalary + 2500;

    }

    if(Sales<25000){
        NewSalary = NewSalary +(Sales*10/100);
    }
}
```

```
if(Sales>=25000 && Sales<50000){  
    NewSalary = NewSalary + (Sales * 12/100);  
  
}  
  
if(Sales>=50000){  
    NewSalary = NewSalary + (Sales * 15/100);  
  
}  
  
printf(" Your Monthly Salary is %f \n",NewSalary);  
  
return 0;  
}
```

### Another answer for question – 04 (Q4)

```
#include<stdio.h>

int main (void)
{
    int basic_salary;
    int years;
    char city;
    float bonus_salary;
    float salary;
    float net_salary;


    printf ("Entrt the basic salary:") ;
    scanf ("%d" , &basic_salary);


    printf("\nls the sevice above or 5 years :");
    scanf ("%d", &years);


    printf ("\nEnter the working city (enter 'c' if it is colombo:");
    scanf ("%*c%c" ,&city);


    if (basic_salary>0 && basic_salary < 25000)
    {

        bonus_salary = basic_salary + (basic_salary * 0.1);
```



```
if (years >= 5 )
```

```
{
```

```
    salary = basic_salary * 0.1;
```

```
}
```

```
if (city=='c' | city=='c')
```

```
{
```

```
    net_salary = bonus_salary + 2500 + salary ;
```

```
}
```

```
else
```

```
{
```

```
    net_salary = bonus_salary + salary;
```

```
}
```

```
printf ("\nThe monthly remuneration of the salesman is %.2f ",net_salary);
```

```
}
```

```
else if(basic_salary >=25000 && basic_salary < 50000)
```

```
{
```

```
    bonus_salary = basic_salary + (basic_salary * 0.12);
```

```
    if (years >= 5 )
```

```
    {
```

```
        salary = basic_salary * 0.1;
```

```
    }
```

```
    if (city=='c' | city=='c')
```

```
{  
    net_salary = bonus_salary + 2500 + salary ;  
}  
else  
{  
    net_salary = bonus_salary + salary;  
}  
printf ("\nThe monthly remuneration of the salesman is %.2f ",net_salary);  
}
```

```
else if (basic_salary >50000)  
{  
    bonus_salary = basic_salary + (basic_salary * 0.15);
```

```
if (years >=5 )  
{  
    salary = basic_salary * 0.1;  
}
```

```
if (city=='c' | city=='c')  
{  
    net_salary = bonus_salary + 2500 + salary ;  
}  
else  
{  
    net_salary = bonus_salary + salary;  
}
```

```
printf ("\nThe monthly remuneration of the salesman is %.2f ",net_salary);

}

return 0;
```

(Q5)

```
#include <stdio.h>

int main()
{
    char op;
    float num1, num2, result=0.0f;

    printf("-Welcome To Simple Calculator-\n");

    printf("Enter [number 1] [+ - * /] [number 2]\n");

    scanf("%f %c %f", &num1, &op, &num2);

    switch(op)
    {
        case '+':
            result = num1 + num2;
            break;

        case '-':
            result = num1 - num2;
            break;

        case '*':
            result = num1 * num2;
            break;
```

```
case '/':  
    result = num1 / num2;  
    break;  
  
default:  
    printf("-Invalid operator-");  
}  
  
printf("%.2f %c %.2f = %.2f", num1, op, num2, result);  
return 0;  
}
```