

Soal No 1:

Membuat Tip Restoran Berdasarkan Input Pengunjung:

```
#include <iostream>

#include <math.h>

using namespace std;

void tk5 (void) {

    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;

    tip_biasa = 12;

    tkurang5 = 0;

    tlebih5 = 3;

    tlebih10 = 10;

    ljelek = -2;

    lbaik = 0;

    lluarbiasa = 2;

    a = tip_biasa + tkurang5;

    cout << "\n-----";

    cout << "\nBagaimana pelayanan kami?" << endl;

    cout << "-----";

    cout << "\n1. Kurang Baik ";

    cout << "\n2. Baik";

    cout << "\n3. Luar Biasa";

    cout << "\n-----";

    cout << "\nPelayanan kami: ";

    cin >> pelayanan;

    cout << "-----\n";
```

```

if (pelayanan == 1){

    f = a + ljelek;

    cout << "Tip anda sebesar " << f << "%";
}
else if (pelayanan == 2) {
    f = a + lbaik;

    cout << "Tip anda sebesar " << f << "%";
}
else if (pelayanan == 3) {
    f = a + lluarbiasa;

    cout << "Tip anda sebesar " << f << "%";
}
}

void tk10 (void) {

    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;

    tip_biasa = 12;
    tkurang5 = 0;
    tlebih5 = 3;
    tlebih10 = 10;
    ljelek = -2;
    lbaik = 0;
    lluarbiasa = 2;

```

```
a = tip_biasa + tlebih5;
```

```
cout << "\n-----";
```

```
cout << "\nBagaimana pelayanan kami?" << endl;
```

```
cout << "-----";
```

```
cout << "\n1. Kurang Baik ";
```

```
cout << "\n2. Baik";
```

```
cout << "\n3. Luar Biasa";
```

```
cout << "\n-----";
```

```
cout << "\nPelayanan kami: ";
```

```
cin >> pelayanan;
```

```
cout << "-----\n";
```

```
if (pelayanan == 1){
```

```
    f = a + ljelek;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
else if (pelayanan == 2) {
```

```
    f = a + lbaik;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
    else if (pelayanan == 3) {
```

```
        f = a + lluarbiasa;
```

```
        cout << "Tip anda sebesar " << f << "%";
```

```
    }
```

```
}
```

```
void tl10 (void) {
```

```

int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;

tip_biasa = 12;

tkurang5 = 0;

tlebih5 = 3;

tlebih10 = 10;

ljelek = -2;

lbaik = 0;

lluarbiasa = 2;


a = tip_biasa + tlebih10;


cout << "\n-----";
cout << "\nBagaimana pelayanan kami?" << endl;
cout << "-----";


cout << "\n1. Kurang Baik ";
cout << "\n2. Baik";
cout << "\n3. Luar Biasa";
cout << "\n-----";


cout << "\nPelayanan kami: ";
cin >> pelayanan;
cout << "-----\n";


if (pelayanan == 1){
    f = a + ljelek;
    cout << "Tip anda sebesar " << f << "%";
}

else if (pelayanan == 2) {
    f = a + lbaik;
    cout << "Tip anda sebesar " << f << "%";
}

```

```

    }

    else if (pelayanan == 3) {

        f = a + lluarbiasa;


        cout << "Tip anda sebesar " << f << "%";

    }

}

```

```

void tk52 (void) {

    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;

    tip_baik = 15;

    tkurang5 = 0;

    tlebih5 = 3;

    tlebih10 = 10;

    ljelek = -2;

    lbaik = 0;

    lluarbiasa = 2;


    a = tip_baik + tkurang5;

    cout << "\n-----";

    cout << "\nBagaimana pelayanan kami?" << endl;

    cout << "-----";


    cout << "\n1. Kurang Baik ";

    cout << "\n2. Baik";

    cout << "\n3. Luar Biasa";

    cout << "\n-----";


    cout << "\nPelayanan kami: ";

    cin >> pelayanan;

    cout << "-----\n";
}

```

```

if (pelayanan == 1){
    f = a + ljelek;
    cout << "Tip anda sebesar " << f << "%";
}
else if (pelayanan == 2) {
    f = a + lbaik;
    cout << "Tip anda sebesar " << f << "%";
}
else if (pelayanan == 3) {
    f = a + lluarbiasa;
    cout << "Tip anda sebesar " << f << "%";
}
}

void tk102 (void) {
    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;

    tip_baik = 15;
    tkurang5 = 0;
    tlebih5 = 3;
    tlebih10 = 10;
    ljelek = -2;
    lbaik = 0;
    lluarbiasa = 2;

    a = tip_baik + tlebih5;

    cout << "\n-----";
    cout << "\nBagaimana pelayanan kami?" << endl;
    cout << "-----";

```

```
cout << "\n1. Kurang Baik ";  
cout << "\n2. Baik";  
cout << "\n3. Luar Biasa";  
cout << "\n-----";
```

```
cout << "\nPelayanan kami: ";  
cin >> pelayanan;  
cout << "-----\n";
```

```
if (pelayanan == 1){  
    f = a + ljelek;  
    cout << "Tip anda sebesar " << f << "%";  
}  
else if (pelayanan == 2) {  
    f = a + lbaik;  
    cout << "Tip anda sebesar " << f << "%";  
}  
else if (pelayanan == 3) {  
    f = a + lluarbiasa;  
    cout << "Tip anda sebesar " << f << "%";  
}  
}
```

```
void tl102 (void) {  
    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;  
    tip_baik = 12;  
    tkurang5 = 0;  
    tlebih5 = 3;  
    tlebih10 = 10;  
    ljelek = -2;
```

```
lbaik = 0;
```

```
lluarbiasa = 2;
```

```
a = tip_baik + tlebih10;
```

```
cout << "\n-----";
```

```
cout << "\nBagaimana pelayanan kami?" << endl;
```

```
cout << "-----";
```

```
cout << "\n1. Kurang Baik ";
```

```
cout << "\n2. Baik";
```

```
cout << "\n3. Luar Biasa";
```

```
cout << "\n-----";
```

```
cout << "\nPelayanan kami: ";
```

```
cin >> pelayanan;
```

```
cout << "-----\n";
```

```
if (pelayanan == 1){
```

```
    f = a + ljelek;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
else if (pelayanan == 2) {
```

```
    f = a + lbaik;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
    else if (pelayanan == 3) {
```

```
        f = a + lluarbiasa;
```

```
        cout << "Tip anda sebesar " << f << "%";
```

```
    }
```

```
}
```



```

void tk53 (void) {

    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;

    tip_mewah = 20;

    tkurang5 = 0;

    tlebih5 = 3;

    tlebih10 = 10;

    ljelek = -2;

    lbaik = 0;

    lluarbiasa = 2;


    a = tip_mewah + tkurang5;


    cout << "\n-----";
    cout << "\nBagaimana pelayanan kami?" << endl;
    cout << "-----";


    cout << "\n1. Kurang Baik ";
    cout << "\n2. Baik";
    cout << "\n3. Luar Biasa";
    cout << "\n-----";


    cout << "\nPelayanan kami: ";
    cin >> pelayanan;
    cout << "-----\n";


    if (pelayanan == 1){
        f = a + ljelek;

        cout << "Tip anda sebesar " << f << "%";
    }

    else if (pelayanan == 2) {

```

```

        f = a + lbaik;

        cout << "Tip anda sebesar " << f << "%";
    }

    else if (pelayanan == 3) {
        f = a + lluarbiasa;

        cout << "Tip anda sebesar " << f << "%";
    }
}

```

```

void tk103 (void) {

    int a,f,pelayanan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;

    tip_mewah = 20;
    tkurang5 = 0;
    tlebih5 = 3;
    tlebih10 = 10;
    ljelek = -2;
    lbaik = 0;
    lluarbiasa = 2;

    a = tip_mewah + tlebih5;

    cout << "\n-----";
    cout << "\nBagaimana pelayanan kami?" << endl;
    cout << "-----";

    cout << "\n1. Kurang Baik ";
    cout << "\n2. Baik";
    cout << "\n3. Luar Biasa";
    cout << "\n-----";

    cout << "\nPelayanan kami: ";
}

```

```

cin >> pelayananan;

cout << "-----\n";

if (pelayananan == 1){
    f = a + ljelek;
    cout << "Tip anda sebesar " << f << "%";
}

else if (pelayananan == 2) {
    f = a + lbaik;
    cout << "Tip anda sebesar " << f << "%";
}

else if (pelayananan == 3) {
    f = a + lluarbiasa;
    cout << "Tip anda sebesar " << f << "%";
}
}

void tl103 (void) {
    int a,f,pelayananan,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluarbiasa;;
    tip_mewah = 20;
    tkurang5 = 0;
    tlebih5 = 3;
    tlebih10 = 10;
    ljelek = -2;
    lbaik = 0;
    lluarbiasa = 2;

    a = tip_mewah + tlebih10;

    cout << "\n-----";
    cout << "\nBagaimana pelayananan kami?" << endl;

```

```
cout << "-----";
```

```
cout << "\n1. Kurang Baik ";
```

```
cout << "\n2. Baik";
```

```
cout << "\n3. Luar Biasa";
```

```
cout << "\n-----";
```

```
cout << "\nPelayanan kami: ";
```

```
cin >> pelayanan;
```

```
cout << "-----\n";
```

```
if (pelayanan == 1){
```

```
    f = a + ljelek;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
else if (pelayanan == 2) {
```

```
    f = a + lbaik;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
else if (pelayanan == 3) {
```

```
    f = a + lluarbiasa;
```

```
    cout << "Tip anda sebesar " << f << "%";
```

```
}
```

```
}
```

```
int main (){
```

```
    cout << "\t===== Layanan Konsumen =====\n" << endl;
```

```
int
```

```
tipe_restoran,banyak_orang,tip_baik,tip_biasa,tip_mewah,tkurang5,tlebih10,tlebih5,ljelek,lbaik,lluar  
rbiasa;
```

```
cout << "\n-----";
```

```

cout << "\nJenis restoran yang anda datangi : " << endl;
cout << "-----";

cout << "\n1. Restoran Biasa ";
cout << "\n2. Restoran Baik";
cout << "\n3. Restoran Mewah";
cout << "\n-----";

cout << "\nJenis Restoran : ";
cin >> tipe_restoran;
cout << "-----";

if (tipe_restoran == 1) {
    cout << "\n-----";
    cout << "\nAda berapa banyak orang yang datang ?" << endl;
    cout << "-----";

    cout << "\nJumlah orang: ";
    cin >> banyak_orang;
    cout << "-----";

    if (banyak_orang <= 5) {
        tk5 ();
    }
    else if (banyak_orang <= 10) {
        tk10 ();
    }
    else {
        tl10 ();
    }
}
}

```

```

else if (tipe_restoran == 2) {

    cout << "\n-----";

    cout << "\nAda berapa banyak orang yang datang ?" << endl;

    cout << "-----";


    cout << "\nJumlah orang: ";

    cin >> banyak_orang;

    cout << "-----";


    if (banyak_orang <= 5) {

        tk52 ();

    }

    else if (banyak_orang <= 10) {

        tk102 ();

    }

    else {

        tl102 ();

    }

}

```

```

else if (tipe_restoran == 3) {

    cout << "\n-----";

    cout << "\nAda berapa banyak orang yang datang ?" << endl;

    cout << "-----";


    cout << "\nJumlah orang: ";

    cin >> banyak_orang;

    cout << "-----";


    if (banyak_orang <= 5) {

        tk53 ();

    }

}

```

```
}  
else if (banyak_orang <= 10) {  
    tk103 ();  
}  
else {  
    tl103 ();  
}  
}  
return 0;  
}
```

Soal No 2

Menghitung fungsi yang diketahui menggunakan input nilai x

```
#include <iostream>
```

```
#include <math.h>
```

```
using namespace std;
```

```
int main () {
```

```
    int x,a;
```

```
    cout << "Diberikan fungsi: \n";
```

```
    cout << " $f(x) = 225x^3 + 137x^2 - 345x + 11$ \n";
```

```
    cout << "Carilah hasil fungsi untuk nilai x = ";
```

```
    cin >> x;
```

```
    if (x < 1) {
```

```
        cout << "\nMaaf, nilai x yang anda masukkan tidak sesuai syarat untuk x !!\n";
```

```
    }
```

```
    else if (x <= 25) {
```

```
        a = 225 * pow (x,3) + 137 * pow(x,2) - 345 * x + 11;
```

```
        cout << "\nNilai dari fungsi f(" << x << ") adalah " << a;
```

```
    }
```

```
    else {
```

```
        cout << "\nMaaf, nilai x yang anda masukkan tidak sesuai syarat untuk x !!\n";
```

```
    }
```

```
    return 0;
```

```
}
```