

Lab Task 4

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Q.1. Total pay of an employee is calculated by considering the fixed pay, over time rate and number of overtime hours as following;

Total pay = fixed pay + (over time rate * over time hours)

Write a C++ program which inputs the fixed pay of the employee, over time rate, and the number of hours for which the employee has worked over time, and calculate the total pay.

For sample output, the fixed pay is 10 times the last two digits of your registration number, over time rate is 2 times the last two digits of your registration number, and the number of extra hours are the last two digits of your registration numbers.

Source code:

```
#include<iostream>

using namespace std;

int main()
{
    float total_pay, fixed_pay, over_time_rate, over_time_hours;

    cout<<"Enter the Fixed pay : ";
    cin>>fixed_pay;

    cout<<"Enter the Over time rate per hours : ";
    cin>>over_time_rate;

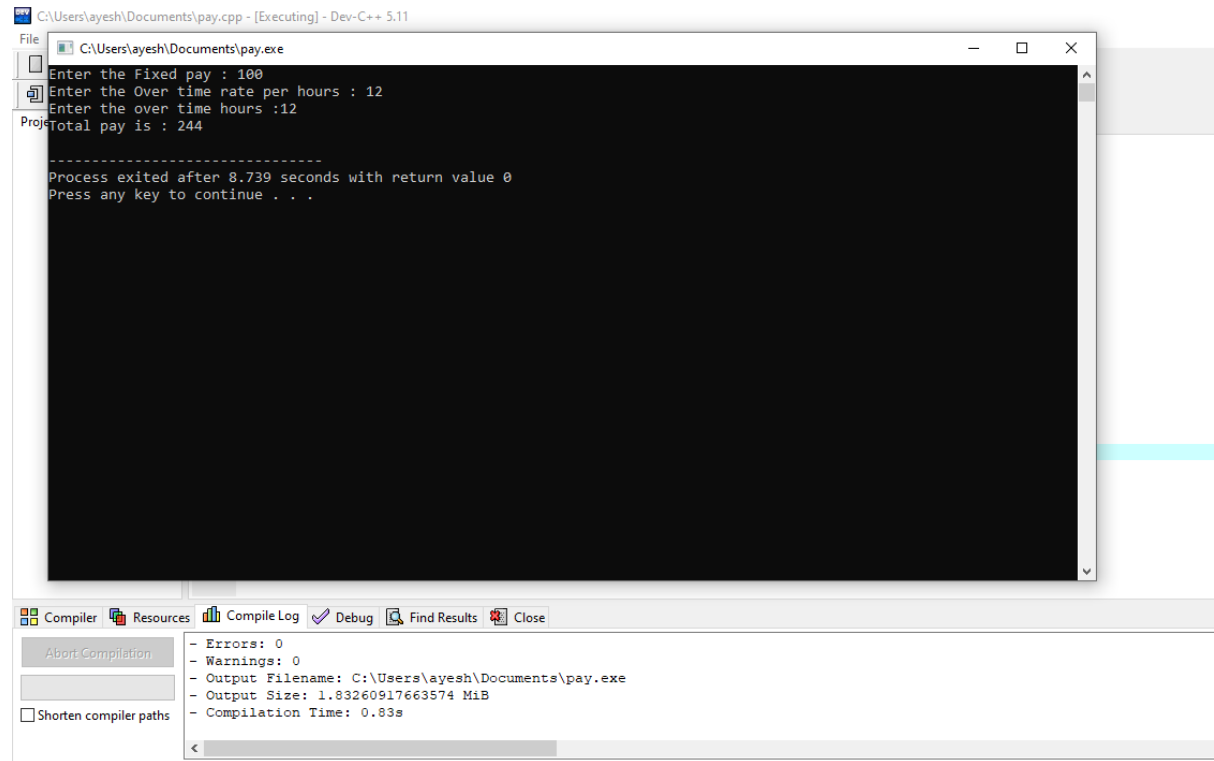
    cout<<"Enter the over time hours : ";
    cin>>over_time_hours;

    total_pay=fixed_pay+(over_time_rate*over_time_hours);

    cout<<"Total pay is : "<<total_pay<<endl;
```

```
    return 0;  
}
```

Output:



Q.2. Consider the program in Task 1, and deduct tax at the rate of 9%

Source code:

```
#include<iostream>

using namespace std;

int main()
{
    float total_pay, fixed_pay, over_time_rate, over_time_hours, after_deducted_pay;

    cout<<"Enter the Fixed pay : ";
    cin>>fixed_pay;

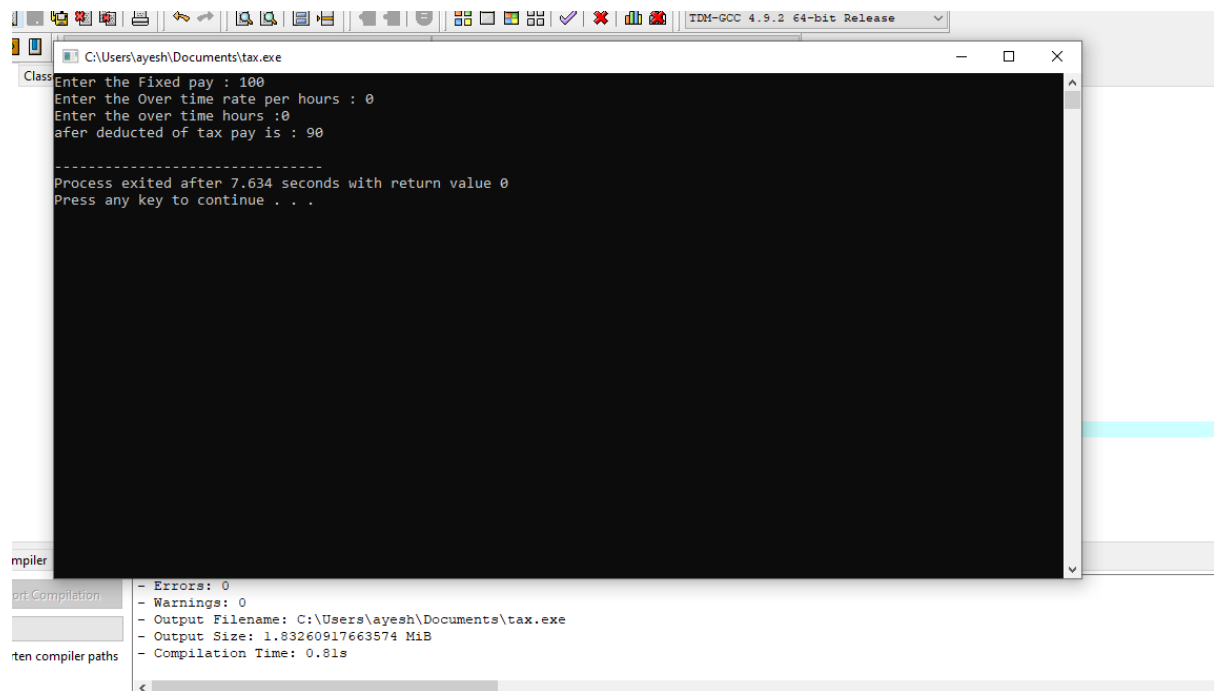
    cout<<"Enter the Over time rate per hours : ";
    cin>>over_time_rate;

    cout<<"Enter the over time hours :";
    cin>>over_time_hours;

    total_pay=fixed_pay+(over_time_rate*over_time_hours);

    after_deducted_pay =(total_pay * 0.9);
    cout<<"after deducted of tax pay is : "<<after_deducted_pay<<endl;
    return 0;
}
```

Output:



Q.3. Compute electricity bill using the following rates:

☐ First 100 units cost Rs 7.00 per unit

☐ Next 50 units cost Rs 10.00 per unit

☐ All other units cost Rs 15.00 per unit

The user should be asked to input only the number of units consumed.

The output should be of the following format;

----- A Typical Display-----

Please enter the total number of consumed units :: 231

Units in First Slab :: 100

Units in Second Slab :: 50

Units in Third Slab :: 81

Total Bill :: 2415

Source code:

```
#include <iostream>

using namespace std;

int main() {

    int amount, firstlab, secondslab, thirdslab, total;

    cout << "please enter the amount \n";

    cin >> amount;


    if (amount <= 100 and amount > 0) {

        firstlab = amount;

        secondslab = 0;

        thirdslab = 0;


        total = amount * 7;


    } else if (amount > 100 && amount <= 150) {

        firstlab = amount - (amount - 100);


        total = firstlab * 7 + (amount - 100) * 10;

    } else if (amount > 150) {

        firstlab = amount - (amount - 150) - 50;

        secondslab = amount - (amount - 150) - 100;

        thirdslab = amount - 150;

        total = (firstlab * 7.0) + (secondslab * 10.0) + (amount - 150) * 15.0;

    }

    cout << "Units in First Slab : " << firstlab << endl;

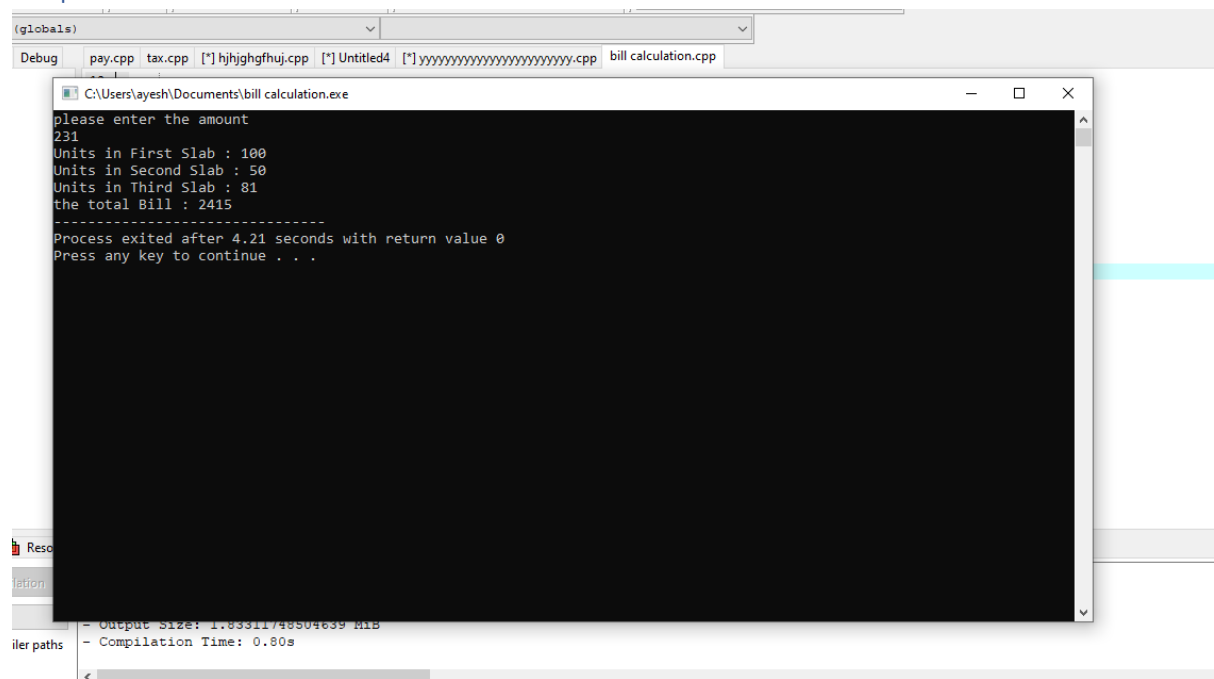
    cout << "Units in Second Slab : " << secondslab << endl;

    cout << "Units in Third Slab : " << thirdslab << endl;

    cout << "the total Bill : " << total;

    return 0; }
```

output:



The screenshot shows a C++ IDE with a file explorer at the top displaying a project named "bill calculation.cpp". The main window shows the output of the program, which is a bill calculation. The output text is as follows:

```
please enter the amount
231
Units in First Slab : 100
Units in Second Slab : 50
Units in Third Slab : 81
the total Bill : 2415
-----
Process exited after 4.21 seconds with return value 0
Press any key to continue . . .
```

At the bottom of the IDE, there is a status bar showing the output size and compilation time:

```
- Output Size: 1.83311748504639 MiB
- Compilation Time: 0.80s
```