



Programming Fundamental

Week 03 - Lab Manual Solution



Task 04(CP): Write a program that takes charge (Q) and time (t) as input from the user and prints the current (I) on the console. $\text{Current(I)} = \text{Charge (Q)}/\text{Time(t)}$

```
#include <iostream>
using namespace std;
int main(){
    float time, charge, current;

    cout<< "Enter Charge in Wire: ";
    cin >> charge;
    cout<< "Enter Time: ";
    cin >> time;

    current = charge/time;
    cout<< "Current in the Wire: "<<current;

    return 0;
}
```

Task 05(CP): Write a program that takes the name, matric (out of 1100), intermediate(out of 550), and ecat (out of 400) marks of the student and print their aggregate score for UET. $\text{Ecat} = 50\%$ & $\text{intermediate} = 40\%$ & $\text{Matric} = 10\%$

The screenshot shows a C++ program in a Notepad window titled 'aggregate.cpp'. The code is annotated with red boxes and arrows pointing to descriptive labels:

- Variable declaration:** Points to the declaration of `string studentName;`, `float matricMarks, interMarks, ecatMarks;`, `float matricPercent, interPercentage, ecatPercentage;`, and `float total;`.
- Taking Input from User:** Points to the `cout<< "Enter your name: "; cin>> studentName;` and `cout<< "Enter your Matric Marks: "; cin>> matricMarks;` lines.
- Expression for calculating weightage:** Points to the calculation of `matricPercent = matricMarks/1100.0*100*0.10;`.
- Calculating final aggregate and printing on screen:** Points to the final calculation `total = matricPercent + interPercentage + ecatPercentage;` and the output statement `cout<<"Aggregate: "<< total;`.

```
aggregate.cpp - Notepad
File Edit Format View Help
# include <iostream>
using namespace std;

int main(){

    string studentName;
    float matricMarks, interMarks, ecatMarks;
    float matricPercent, interPercentage, ecatPercentage;
    float total;

    cout<< "Enter your name: ";
    cin>> studentName;
    cout<< "Enter your Matric Marks: ";
    cin>> matricMarks;
    cout<< "Enter your Intermediate Marks: ";
    cin>> interMarks;
    cout<< "Enter your ECAT Marks: ";
    cin>> ecatMarks;

    matricPercent = matricMarks/1100.0*100*0.10;
    interPercentage = interMarks/550.0*100*0.40;
    ecatPercentage= ecatMarks/400.0*100*0.50;

    total = matricPercent + interPercentage + ecatPercentage;
    cout<<"Aggregate: "<< total;

    return 0;
}
```



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Good Luck and Best Wishes !!

Happy Coding ahead :)