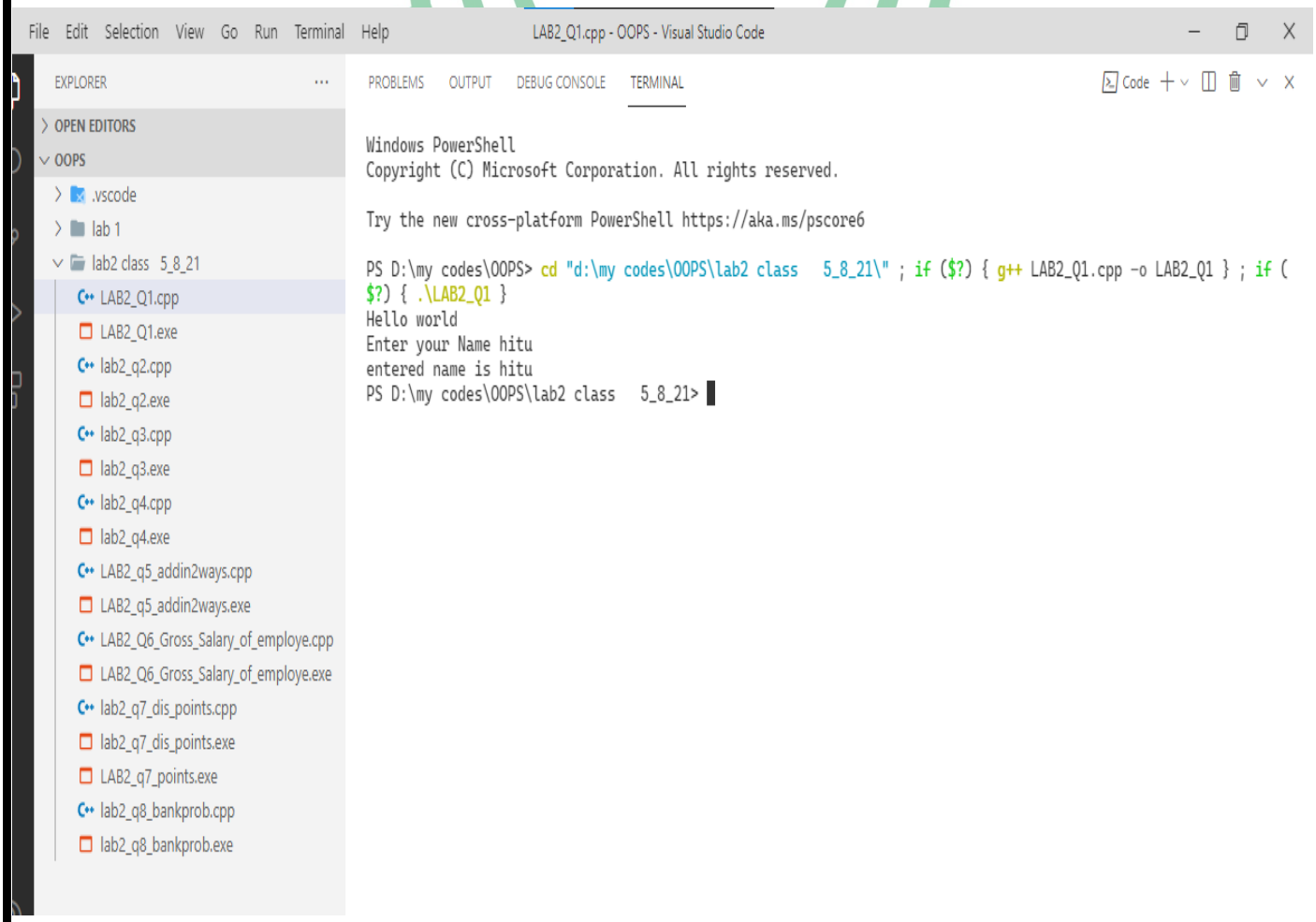
```cpp
//q1 WAP to display the message "hello" followed by yo
ur name on screen
 #include <iostream>
 using namespace std;
 int main()
 {
     char name_025[50];
     cout << "Hello world \n";

     cout << "Enter your Name ";
     cin >> name_025;
     cout << "entered name is " << name_025;

     return 0;
 }
```

OUTPUT Q1



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```
//Q2.Create a class which stores name_025, roll_025 num
ber and total marks for a student.
//Input the data for a student and display it.
#include <iostream>
using namespace std;
class stud
{
    char
    name_025[20];
    int roll_025, total_marks_025;

public:
    void input()
    {
        cout << "enter the name ";
        gets(name_025);
        cout << "enter roll_025 ";
        cin >> roll_025 ;
        cout << "enter marks in 5 subj";
        int sum=0;
        for (int i = 0; i < 5; i++)
        {
            cin>>total_marks_025;
            sum=sum+total_marks_025;
        }
        total_marks_025=sum;
```

```
    }
    void output()
    {
        cout << "The name roll and total marks are " <<
 name_025 <<" " << roll_025<<" " << total_marks_025;
    }
};
 int main()
{
    stud s;
    s.input();
    s.output();

    return 0;
}
```

OUTPUT Q2

```
PS D:\my codes\OOPS> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q2.cpp -o lab2_q2 } ; if (
$?) { .\lab2_q2 }
enter the name hitu
enter roll_025 raj
enter marks in 5 subjThe name roll and total marks are hitu 0 20972160
PS D:\my codes\OOPS\lab2 class   5_8_21> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q2.cpp
 -o lab2_q2 } ; if ($?) { .\lab2_q2 }
enter the name hitu
enter roll_025 24
enter marks in 5 subj23
32
43
23
21
The name roll and total marks are hitu 24 142
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

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```
//Q3. Modify the program ii) to store marks in 5 subjec
ts. Calculate the total
//marks and percentage of a student and display it.
#include <iostream>
using namespace std;
class stud
{
    char name_025[20];
    int roll_025, total_marks_025;
    float perc;

public:
    void input()
    {
        cout << "enter the name ";
        gets(name_025);
        cout << "enter roll ";
        cin >> roll_025;
        cout << "enter marks in 5 subj";
        int sum = 0;
        for (int i = 0; i < 5; i++)
        {
            cin >> total_marks_025;
            sum = sum + total_marks_025;
        }
        total_marks_025 = sum;
        perc = total_marks_025/ 5;
```

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```
    }
    void output()
    {
        cout << "The name, roll , total marks and perce
ntage  are \n" << name_025 << " \n" << roll_025<< " \n"
 << total_marks_025 << " \n" << perc << "%";
    }
};
int main()
{
    stud s;
    s.input();
    s.output();

    return 0;
}
```

OUTPUT Q3

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\my codes\OOPS> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q3.cpp -o lab2_q3 } ; if (
$?) { .\lab2_q3 }
c:/mingw/bin/../lib/gcc/mingw32/9.2.0/../../../../mingw32/bin/ld.exe: cannot open output file lab2_q3.exe: Perm
ission denied
collect2.exe: error: ld returned 1 exit status
PS D:\my codes\OOPS\lab2 class   5_8_21> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q3.cpp
 -o lab2_q3 } ; if ($?) { .\lab2_q3 }
enter the name HITU RAJ
enter roll 25
enter marks in 5 subj98
95
99
94
96
The name, roll , total marks and percentage  are
HITU RAJ
25
482
96%
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

ways.cpp
ways.exe
Salary_of_employe.cpp
Salary_of_employe.exe
ts.cpp
ts.exe
exe
b.cpp

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```
//q4 Create a class complex which stores real_025
 and imaginary part of a complex
//number. Input 10 complex numbers and display th
em.
#include <iostream>
using namespace std;
class complex
{
    float real_025;
    float img_025;

public:
    void input(int i)
    {
        cout << " \n Enter" << i + 1 << "complex
no.\n",
            cout << "enter the real part ";
        cin >> real_025;
        cout << "enter img part ";
        cin >> img_025;
    }
    void output()
    {

        cout << "\n The complex no. is " << real_
025 << "+" << img_025 << "i";
    }
};
int main()
{
    int n;
    complex c[10];
    cout << "how many complexno. you have ";
    cin >> n;
    for (int i = 0; i < n; i++)
    {
```

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```
        c[i].input(i);
    }

    for (int i = 0; i < n; i++)
    {
        c[i].output();
    }


        return 0;
}
```

OUTPUT Q4

```
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\my codes\OOPS> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q4.cpp -o lab2_q4 } ; if (
$?) { .\lab2_q4 }
how many complexno. you have 3

 Enter1complex no.
enter the real part 23
enter img part 42

 Enter2complex no.
enter the real part 321
enter img part 432

 Enter3complex no.
enter the real part 321
enter img part 23

 The complex no. is 23+42i
 The complex no. is 321+432i
 The complex no. is 321+23i
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

Ln 39, Col 6 Spaces: 4 UTF-8 CRLF C++ Win32

```
//Q5 Create a class distance which stores a dista
nce in feet_025 and inches_025. Input 2
//distance values in objects, add them, store the
 resultant distance in an object
//and display it.
#include <iostream>
#include <stdio.h>
#include <stdlib.h>
using namespace std;

class dist
{

    int feet_025, inches_025;

public:
    void input()
    {
        cout << "enter the value of feet and inch
es \n";
        cin >> feet_025 >> inches_025;
    }
    void display()
    {

        cout << "the required distance is " << fe
et_025 << " feet " << inches_025 << " inches";
    }
    void add(dist a, dist b) // 1ST METHOD
    {

        inches_025 = a.inches_025 + b.inches_025;
        feet_025 = a.feet_025 + b.feet_025 + inch
es_025 / 12;
        inches_025 = inches_025 % 12;
        cout << "the added distance is";
    }
```

```
    dist add(dist a) // 2ST METHOD
    {
        dist c;
        c.inches_025 = a.inches_025 + inches_025;
        c.feet_025 = a.feet_025 + feet_025 + inch
es_025 / 12;
        c.inches_025 = c.inches_025 % 12;

        return c;
    }

} d[2];
int main()
{
    for (int i = 0; i < 2; i++)
    {
        d[i].input();
    }
    dist c;
    c.add(d[0], d[1]);
    // c=d[0].add(d[1]);
    // cout<<"the added value of the disstance is
 \n";
    c.display();

    return 0;
}
```

OUTPUT Q5

```
PS D:\my codes\OOPS\lab2 class   5_8_21> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ LAB2_q5_add
in2ways.cpp -o LAB2_q5_addin2ways } ; if ($?) { .\LAB2_q5_addin2ways }
enter the value of feet and inches
12
2
enter the value of feet and inches
13
14
the added distance isthe required distance is 26 feet 4 inches
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

Ln 17, Col 57 Spaces: 4 UTF-8 CRLF C++ Win32

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```
/* Q6. Create a class which storesid_025, name, age_025
 and basic salary of an employee.
Input data for n number of employees. Calculate the gro
ss salary of all the
employees and display it along with all other details i
n a tabular form.
[Gross salary= Basic salary + DA + HRA,
DA = 80% of Basic salary
HRA=10% of Basic salary ]*/
#include <cstdio>
#include <iostream>
using namespace std;

class employee
{
    char name[100];
    int age_025,id_025;
    float bacicsalary_025;
    float grosssalary_025;

public:
    void input()
    {
        cout << "enter the name of employee ";
        cin >> name;
        cout << "enter the age_025 ,id and basic salary
 of employee ";
```

```
        cin >> age_025 >>id_025 >> bacicsalary_025;

        grosssalary_025 = bacicsalary_025 + 0.8 * bacic
salary_025 + 0.1 * bacicsalary_025;
    }
    void display()
    {
        cout << " The age_025 :" << age_025 << "id is :
" <<id_025 << "\nBasic salary is " << bacicsalary_025 <
< "\ngross salary :" << grosssalary_025;
    }
};

int main()
{
    int n;

    employee e[10];
    printf("how many employees you have ");
    scanf("%d", &n);

    for (int i = 0; i < n; i++)
    {
        e[i].input();
    }

    for (int i = 0; i < n; i++)
```

```
    {
        cout << " \n \nThe details of " << i + 1 << " e
mployee is : \n";
        e[i].display();
    }

    return 0;
}
```

OUTPUT Q6

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\my codes\OOPS> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ LAB2_Q6_Gross_Salary_of_employe
.cpp -o LAB2_Q6_Gross_Salary_of_employe } ; if ($?) { .\LAB2_Q6_Gross_Salary_of_employe }
how many employees you have 2
enter the name of employee hitu
enter the age_025 ,id and basic salary of employee 21
123
12000
enter the name of employee richa
enter the age_025 ,id and basic salary of employee 24
3432
23000


The details of 1 employee is :
 The age_025 :21id is :123
Basic salary is 12000
gross salary :22800

The details of 2 employee is :
 The age_025 :24id is :3432
Basic salary is 23000
gross salary :43700
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

Ln 46, Col 1 Spaces: 4 UTF-8 CRLF C++ Win32

```
/*Q7 Create a class which stores x_025 and y_025
coordinates of a point. Calculate
distance between two given points and display_025
 it.

*/
#include <iostream>
#include <math.h>
using namespace std;

class dist
{
  int x_025, y_025;

public:
  void input()
  {

    cout << "enter the coordinates ";
    cin >> x_025 >> y_025;
  }
  double point(dist b)
  {
    double dis = sqrt(pow((x_025 -
 b.x_025), 2) + pow((y_025 - b.y_025), 2));
    return dis;
  }
```

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```
}d[2];


int main()
{

  for (int i = 0; i < 2; i++)
  {
    d[i].input();
  }
  cout <<"\n Distance b/w the 2 coordinates is "<
< d[0].point(d[1]);

  return 0;
}
```

OUTPUT Q7

```
PS D:\my codes\OOPS\lab2 class  5_8_21> cd "d:\my codes\OOPS\lab2 class  5_8_21\" ; if ($?) { g++ lab2_q7_dis
_points.cpp -o lab2_q7_dis_points } ; if ($?) { .\lab2_q7_dis_points }
enter the coordinates 3
2
enter the coordinates 4
3

 Distance b/w the 2 coordinates is 1.41421
PS D:\my codes\OOPS\lab2 class  5_8_21>
```

Ln 7, Col 21 Spaces: 2 UTF-8 CRLF C++ Win32

```
/*Q8 Define a class to represent a bank account. Include the following mem
bers:
Data Members

b) name_025 of the depositor
b) Account number c) Type of account
c) d) Balance amount in the account
Member Functions
a) To assign initial value
b) To deposit an amount
c) To withdraw an amount after checking the balance
d) To display name_025 and balance
Write a main program to test the program.*/

#include <iostream>
#include<stdlib.h>
#include<cstdio>
using namespace std;

class bank
{
    int accno_025;
    char name_025[20],acctype_025[10];
    double accbalance_025;

public:
    void input()
    {
        cout << "enter the acc no.  , acc balance, name , type\n ";

        cin >> accno_025 >> accbalance_025;
        gets(name_025);
        gets(acctype_025);//why it is not reading???
    }
    void deposit()
    {
        double temp;
        cout << " \nhow much ammount you want to deposit ";
        cin >> temp;
        accbalance_025 = temp + accbalance_025;
        cout << "your acc balance is =" << accbalance_025;
    }
    void withdraw()
    {
        double temp;
        cout << " \nhow much money you want to withdraw  ";
```

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```
        cin >> temp;
        if (temp > accbalance_025 && (accbalance_025 - temp) <= 500)
        {
            cout << "insufficient balance in your account";
        }
        else
        {
            cout << "ammount withdrawl succefull " << endl;
            accbalance_025 = accbalance_025 - temp;
            cout << "your acc balance left is = " << accbalance_025;
        }
    }

    void display()
    {
\
        cout <<" \n the name is " <<name_025<<" \nthe acc. balance" << acc
balance_025;
    }
}b;
int main()
{
   b.input();
   b.deposit();
   b.withdraw();
   b.display();
    return 0;
}
```

OUTPUT Q8

```
PS D:\my codes\OOPS\lab2 class   5_8_21> cd "d:\my codes\OOPS\lab2 class   5_8_21\" ; if ($?) { g++ lab2_q8_ban
kprob.cpp -o lab2_q8_bankprob } ; if ($?) { .\lab2_q8_bankprob }
enter the acc no.  , acc balance, name , type
 1234
23000
hitu

how much ammount you want to deposit 2300
your acc balance is =25300
how much money you want to withdraw  1000
ammount withdrawl succefull
your acc balance left is = 24300
 the name is
the acc. balance24300
PS D:\my codes\OOPS\lab2 class   5_8_21>
```

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Subject :OOP

Branch :CSE

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