**Module -3 introduction To OOPS Programming**

**Lab Exercise**

* **Introduction To C++:-**

🡪1. First C++ Program: Hello World

o Write a simple C++ program to display "Hello, World!".

**Objective:** Understand the basic structure of a C++ program, including #include, main(), and cout.

Ans.

#include<iostream>

using namespace std;

int main(){

cout<<"Hello World"<<endl;

return 0;

}

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🡪2. Basic Input/Output

o Write a C++ program that accepts user input for their name and age and then displays a personalized greeting.

**Objective:** Practice input/output operations using cin and cout.

Ans.

#include<iostream>

using namespace std;

int main(){

int age;

char name[100];

cout<<" Enter Your Name= ";

cin>>name;

cout<<" Enter Your Age= ";

cin>>age;

cout<<" Hi,"<<name<<" Your Current Age is "<<age<<endl;

return 0;

}

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🡪3. POP vs. OOP Comparison Program

Write two small programs: one using Procedural Programming (POP) to calculate the area of a rectangle, and another using Object-Oriented Programming (OOP) with a class and object for the same task.

**Objective**: Highlight the difference between POP and OOP approaches.

Ans.

🡪In Pop(Procedural Oriented Programming):-

#include<stdio.h>

int main(){

int length,width,area;

printf("\n Enter the Length is= ");

scanf("%d",&length);

printf("\n Enter the Width is= ");

scanf("%d",&width);

area=length\*width;

printf("\n Length is =%d",length);

printf("\n width is =%d",width);

printf("\n Area is =%d",area);

return 0;

}

🡪In OOP(Object Oriented Programming):

#include<iostream>

using namespace std;

class area{

int length,width,area;

public:

void getdata(){

cout<<"Enter the Length= ";

cin>>length;

cout<<"Enter the width= ";

cin>>width;

}

void display(){

area=length\*width;

cout<<"Length= "<<length<<endl<<"Width= "<<width<<endl<<"Area= "<<area<<endl;

}

};

int main(){

area a;

a.getdata();

a.display();

return 0;

}

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🡪4.Setting Up Development Environment

o Write a program that asks for two numbers and displays their sum. Ensure this is done after setting up the IDE (like Dev C++ or CodeBlocks).

o **Objective**: Help students understand how to install, configure, and run programs in an IDE.

**Ans**.

#include<iostream>

using namespace std;

int main(){

int num1,num2,sum;

cout<<"Enter The Number1= and Number2= ";

cin>>num1>>num2;

sum=num1+num2;

cout<<"Sum of "<<num1<<" And "<<num2<<" is = "<<sum;

return 0;

}

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* **Variable ,Data Type And Operator:**-

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