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Class: B.Sc. Computer Science (Entire)- II **Semester :** 3

Course Title: Object Oriented Programming using C++

- **C++ Reference variable**

C++ introduces a new kind of variable known as *Reference Variable*. It provides an alias (alternative name) for a previously defined variable.

A reference variable must be initialized at the time of declaration.

This establishes the correspondences between the reference and the data object which it names.

When a reference is created, you must tell it which variable it will become an alias for. After you create the reference, whenever you use the variable, you can just treat it as though it were a regular integer variable.

But when you create it, you must initialize it with another variable, whose address it will keep around behind the scenes to allow you to use it to modify that variable.

Declaration

`[data_type] & [reference_variable]=[regular_variable];`

regular_variable is a variable that has already initialized,

and reference_variable is an alternative name (alias) to represent the variable regular_variable.

Consider the example

```
#include <iostream.h>
int main()
{
    int student_age=10;
    int &age=student_age;    // reference variable

    cout<< " value of student_age :"<< student_age << endl;
    cout<< " value of age :"<< age << endl;

    age=age+10;
    cout<<"\nAFTER ADDING 10 INTO REFERENCE VARIABLE \n";
    cout<< " value of student_age :"<< student_age << endl;
    cout<< " value of age :"<< age << endl;
    return 0;
}
```

THANK YOU...