



# ADITYA ENGINEERING COLLEGE (A)

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Department of Information Technology

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## OBJECT ORIENTED PROGRAMMING THROUGH C++

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Semester: III Semester

Designation: Assistant Professor

Course: Object Oriented Programming Through C++

Department: IT

Topic: Object oriented technology

Conventional Methods: Chalk & Talk

Teaching Methodology: Project based Learning

**Object-oriented technology (OOT)** is a software design model in which objects contain both data and the instructions that work on the data. It is increasingly deployed in distributed computing. This topic can be discussed by using the chalk and talk method. For better understanding about the application development using OOT, I used project-based learning while discussing this topic. This makes the students to use OOT in project development.

### References:

1. <https://www.geeksforgeeks.org/oops-object-oriented-design/>
2. <https://www.javatpoint.com/what-is-object-oriented-programming>

### OBJECT ORIENTED TECHNOLOGY

Object-oriented technology (OOT) is a software design model in which objects contain both data and the instructions that work on the data. It is increasingly deployed in distributed computing.

#### Pros of object-oriented technology:

1. It allows for parallel development.

If you're working with programming teams, then each can work independently of one another once the modular classes have been worked out. That allows for a relative level of parallel development that wouldn't be available otherwise.

2. The modular classes are often reusable.

Once the modular classes have been created, they can often be used again in other applications or projects. At times, little-to-no modification is necessary for the next project as well. That gives a team more flexibility once they get beyond the initial start-up phase.

3. The coding is easier to maintain.

With OOT, because your coding base has been centralized, it is easier to create a maintainable procedure code. That makes it easier to keep your data accessible when it becomes necessary to perform an upgrade. This process also improves the security of the programming since high levels of validation are often required.

#### **Cons of object-oriented technology:**

1. It can be inefficient.

Object-oriented Technology tends to use more CPU than alternative options. That can make it be an inefficient choice when there are technical limitations involved due to the size that it can end up being. Because of the duplication involved, the first-time coding can be more extensive than other options as well.

2. It can be too scalable.

If OOT is left to run out of control, then it can create a massive amount of bloated, unnecessary code. When that occurs, the overhead rises and that makes it difficult to keep costs down.

3. It can cause duplication.

OOT projects tend to be easier to design than implement. That is because the modular classes are so flexible in their application. You may be able to get new projects up and running at a greater speed, but that comes at the cost of having projects sometimes feel like they've been cloned.

#### **Object-oriented technology (OOT) using Project based learning:**

The Innovative teaching method, project-based learning helped the students to better understand the concept OOT and apply it solving different problems.

