

### SNS COLLEGE OF TECHNOLOGY



## Coimbatore-35. An Autonomous Institution

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
COURSE CODE & NAME: 23CST205 - Object Oriented Programming Using Java

II YEAR/ III SEMESTER

**UNIT – I INTRODUCTION TO OOP** 

**Topic:Polymorphism** 





- Polymorphism is considered one of the important features of Object-Oriented Programming.
- Polymorphism allows us to perform a single action in different ways.
- In other words, polymorphism allows you to define one interface and have multiple implementations.
- The word "poly" means many and "morphs" means forms, So it means many forms.

#### Example

A person at the same time can have different characteristics. Like a man at the same time is a father, a husband, and an employee.

So the same person possesses different behaviors in different situations. This is called polymorphism.





• Types of Java Polymorphism

• Compile-time Polymorphism

• Runtime Polymorphism





## • Example 1:

We can take a boy as a real-world example. This boy can be a student, a player, and a writer. So that this boy can exist in different ways in different situations.







## • Example 2:

Sound of animals. People have the same sound but different animals make different sounds. The following diagram shows few different sounds make by animals.







