



THE LITTLE FLOWER'S COLLEGE

STD : F. Y. BCA

SUBJECT : C++ PROGRAMMING

TOPIC : INTRODUCTION TO C++



IDENTIFIER

- Identifiers are names given to classes, methods, variables.
- An identifier can be a combination of uppercase and lowercase character, number, underscore and the dollar sign. But they cannot begin with a number.
- Also, remember that C++ is case sensitive so MAX is different from max.



COMMENT

- Comments can be used to explain C++ code, and to make it more readable.
- It can also be used to prevent execution when testing alternative code. Comments can be singled-lined or multiline.
- Single-line comments start with two forward slashes (//).
- Multi-line comments start with /* and ends with */.

KEYWORDS



- A keyword is a reserved word. Every keywords have it's pre-defined meaning and task assigned to them.
- You cannot use it as variable, constant, function or identifier name.
- A list of 32 Keywords in C++ Language which are also available in C language are given below.

auto	break	case	char	const	continue	default	do
double	else	enum	extern	float	for	goto	if
int	long	register	return	short	signed	sizeof	static
struct	switch	typedef	union	unsigned	void	volatile	while



VARIABLE

- A variable is the basic unit of storage in a Java program.
- All variables must be declared before they are used.
- This variable can be of any data type.
- Basic Data Type: int, char, float, double etc.
Derived Data Type: array, pointer etc.

OBJECT-ORIENTED PROGRAMMING



- As the name suggests, OOPs refers to languages that uses objects in programming. It aims to implement real-world entity.
- The main aim of OOP is to bind data and the functions together, so that no other part of the code can access this data except that function.
- OOP concept allows to break the program into the small problems that can be solved easily (one object at a time).

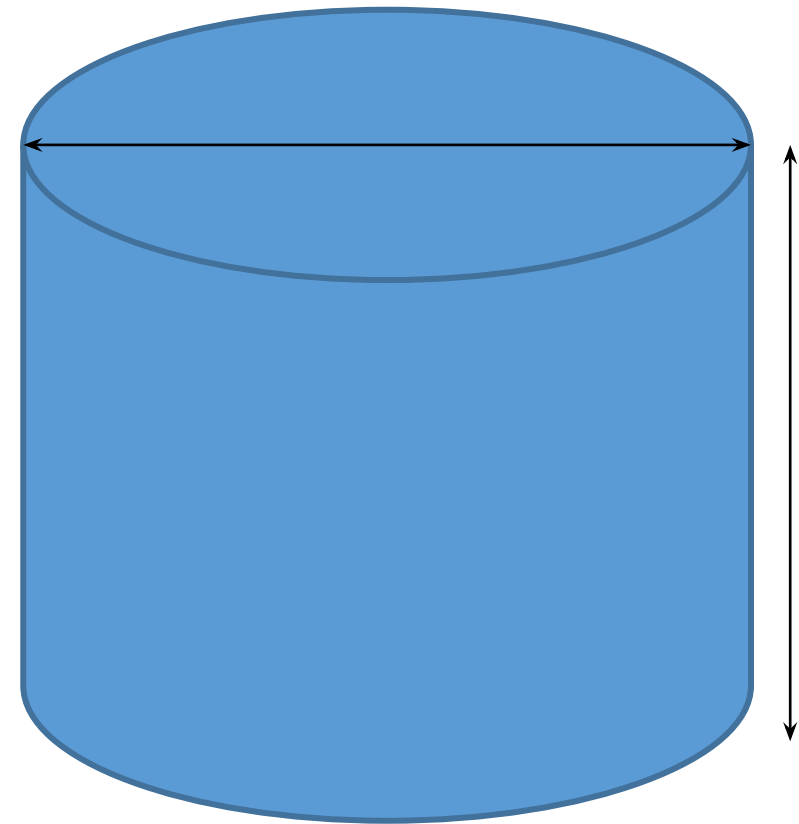
OOPS CONCEPTS

1. Object
2. Class
3. Encapsulation
4. Abstraction
5. Polymorphism
6. Inheritance



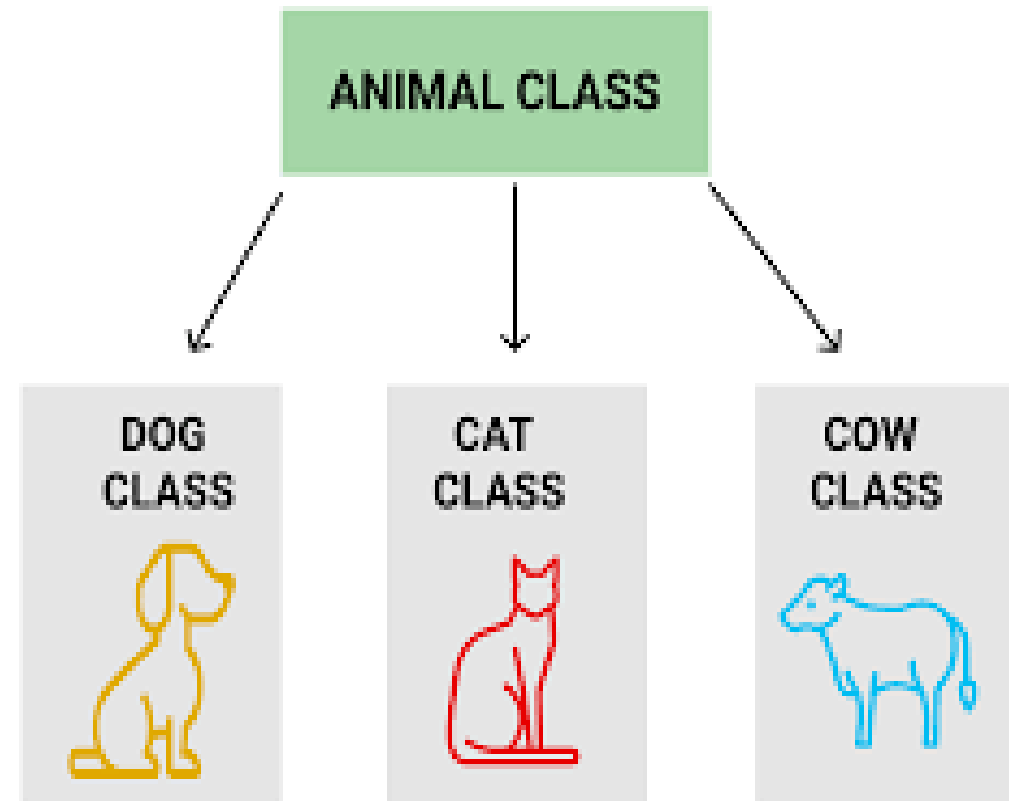
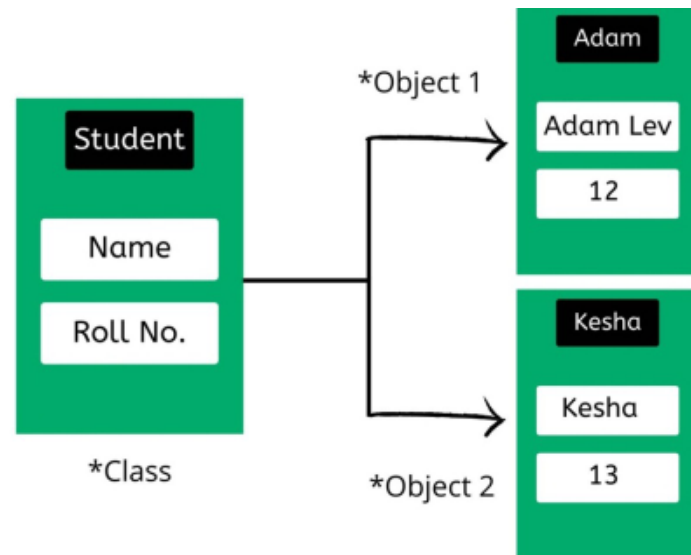
1. OBJECT

- Object means an real-world entity such as a chair, table.
- Object is an instance of class by which we can access the members & function of class.
- It simplifies sw development and



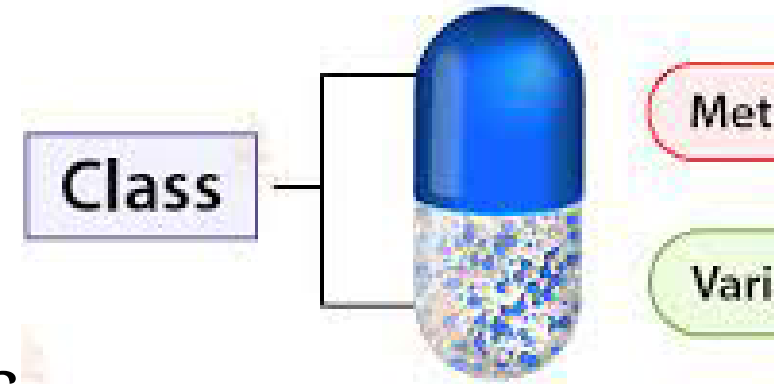
2. CLASS

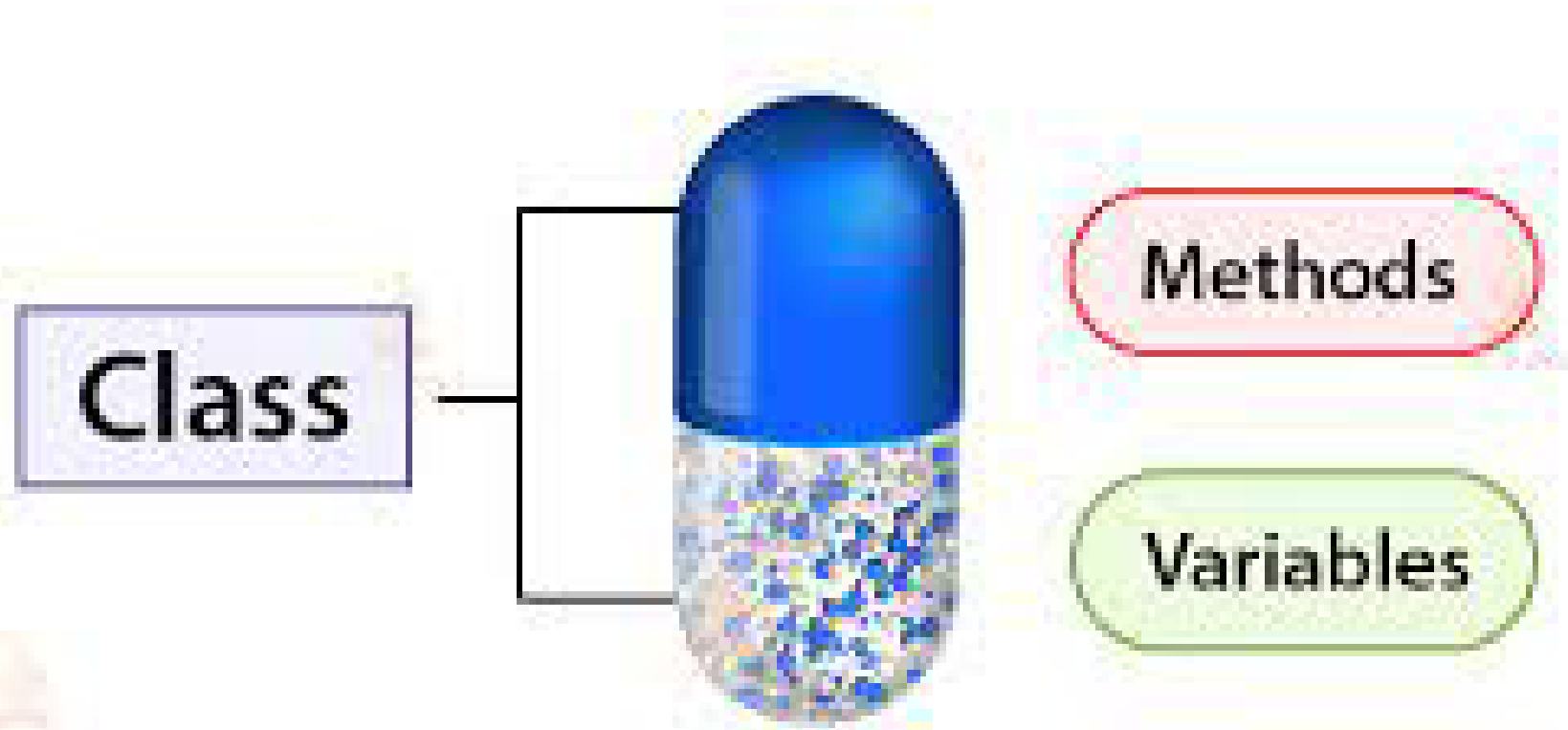
- In object-oriented programming, a class is a blueprint for creating objects.



3. Encapsulation

- Encapsulation is an Object Oriented Programming concept.
- It binds together the data and functions that manipulate the data.
- It keeps data safe from both outside interference and misuse.
- A class is an example of encapsulation in computer science. It consists of data and methods that have been bundled into a single unit.





4. ABSTRACTION



- **Abstraction** is a process of hiding the implementation details and showing only functionality to the user.
- Another way, it shows only essential things to the user and hides the internal details.
- A class which is declared with the abstract keyword is known as an abstract class in C++.
- Focuses on results than process to achieve the result.

5. POLYMORPHISM



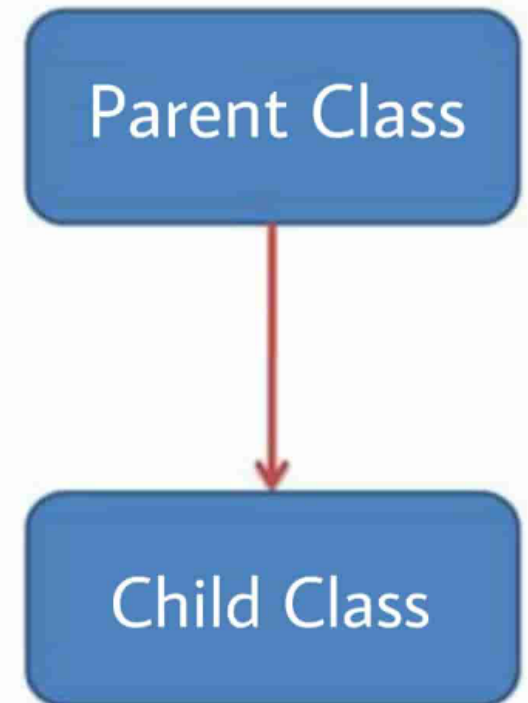
- Polymorphism in C++ is a concept by which we can perform a single action in different ways.
- Here poly means many and morph means forms means many forms.
- There are two types of polymorphism in C++: compile-time polymorphism and runtime polymorphism.
- We can perform polymorphism in C++ by method overloading and method overriding.

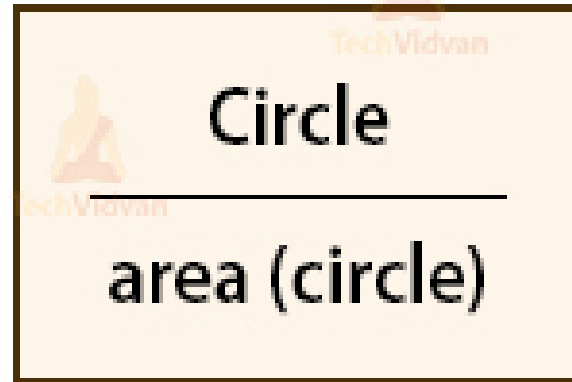
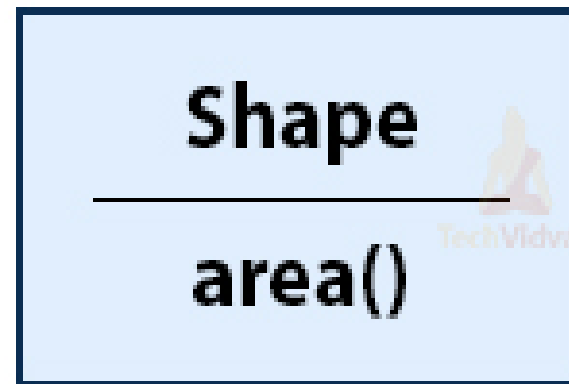
6. INHERITANCE



Inheritance can be defined as inheriting the attributes and methods from one class to another. It is useful for code reusability.

- Super/Parent/Base class:
Class whose properties are being inherited from
- Sub/Child/Derived class:
Class that inherits properties from another class
- To inherit from a class, use the 'extends' keyword







Thank You!