**ABSTRACTION**

**Abstraction** in its main sense is a conceptual process by which general [rules](https://en.wikipedia.org/wiki/Rule_of_inference) and [concepts](https://en.wikipedia.org/wiki/Concept) are derived from the usage and classification of specific examples, literal ("real" or "[concrete](https://en.wikipedia.org/wiki/Abstract_and_concrete)") signifiers, [first principles](https://en.wikipedia.org/wiki/First_principle), or other methods. "An abstraction" is the product of this process — a concept that acts as a super-categorical noun for all subordinate concepts, and connects any related concepts as a *group*, *field*, or *category* Conceptual abstractions may be formed by filtering the [information](https://en.wikipedia.org/wiki/Information) content of a [concept](https://en.wikipedia.org/wiki/Concept) or an observable [phenomenon](https://en.wikipedia.org/wiki/Phenomenon), selecting only the aspects which are relevant for a particular purpose. For example, abstracting a leather soccer ball to the more general idea of a [ball](https://en.wikipedia.org/wiki/Ball) selects only the information on general ball attributes and behavior, eliminating the other characteristics of that particular ball  In a [type–token distinction](https://en.wikipedia.org/wiki/Type%E2%80%93token_distinction), a type (e.g., a 'ball') is more abstract than its tokens (e.g., 'that leather soccer ball').

Abstraction in its secondary use is a [material process](https://en.wikipedia.org/wiki/Abstraction#Material_process)  discussed in the [themes below](https://en.wikipedia.org/wiki/Abstraction#Themes).

Example

:( Without abstract method)

class Employee extends Person {

private String empCode;

public String getEmpCode() {

return empCode;

}

public void setEmpCode(String empCode) {

this.empCode = empCode;

}

}

abstract class Person {

private String name;

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

public class Main{

public static void main(String args[]){

//INSTIATING AN ABSTRACT CLASS GIVES COMPILE TIME ERROR

//Person p = new Person() ;

//THIS REFERENCE VARIABLE CAN ACESS ONLY THOSE METHOD WHICH ARE OVERRIDDEN

Person person = new Employee();

person.setName("Jatin Kansagara");

System.out.println(person.getName());

}

}