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Encapsulation in Java

- It is the mechanism that binds together code and the data it manipulates in encapsulation, the variables or data of a class is hidden from any other class and can be accessed only through any member function(method) of own class in which they are declared.
- As in encapsulation, the data in a class is hidden from other classes, so it is also known as **data-hiding.**
- Encapsulation can be achieved by: Declaring all the variables in the class as private and writing public methods in the class to set and get the values of variables.**(Getters and setters method to set and get the values of the fields.)**

```java
class Employee{
private int uid;
private String empName;
private int empAge;


public int getEmpuid(){
return uid;
   }

public String getEmpName(){
return empName;
   }

public int getEmpAge(){
return empAge;
   }

Public void set EmpAge(int empAge){
this.empAge =  empAge;
   }

public void setEmpName(String empName){
this.empName = empName;
   }
```

```java
public void setEmpuid(intuid){
this.uid = uid;
    }
}
public class Encapsulate{
public static void main(String args[]){
        Employee obj = new Employee();
obj.setEmpName("Gosling");
obj.setEmpAge(67);
obj.setEmpuid(55773021);
System.out.println("Employee Name: " + obj.getEmpName());
System.out.println("Employee UID: " + obj.getEmpuid());
System.out.println("Employee Age: " + obj.getEmpAge());
    }
}
```

Exercise:

1. What are the main benefits of using encapsulation in Java?
2. What is the difference between Abstraction and Encapsulation?
3. What are the getter and setter methods in Java?