ENCAPSULATION

Date - Page

ENCAPSULATION:- is a process of wrapping code and dato together into a single unit.

FOR Ex:- A capsuler ninich is mixed

OF several medicines.

OR

Encapsulation simply means binding
Object State (Fields) and behaviour
(methods) together. 9F you are
creating class, you are doing
encapsulation.

OR

Encapsulation in Java is on objectOriented procedure of combine
the dato members and dato
metrod of the class inside the
User-defined class.

* 9+ is important to declare tris

1D64

The whole ideo behind encepsulation
is to hide the implementation
details from users. 9F o data
member is private it means it can
only be accessed within the
same class. No outside class
con access private data member(w)

of other class

Honever if he setup public getter ond setter methods to update (For example void setson (int son) and read (For example int getson() the private data fields them the outside class can access those private data fields via public merods.

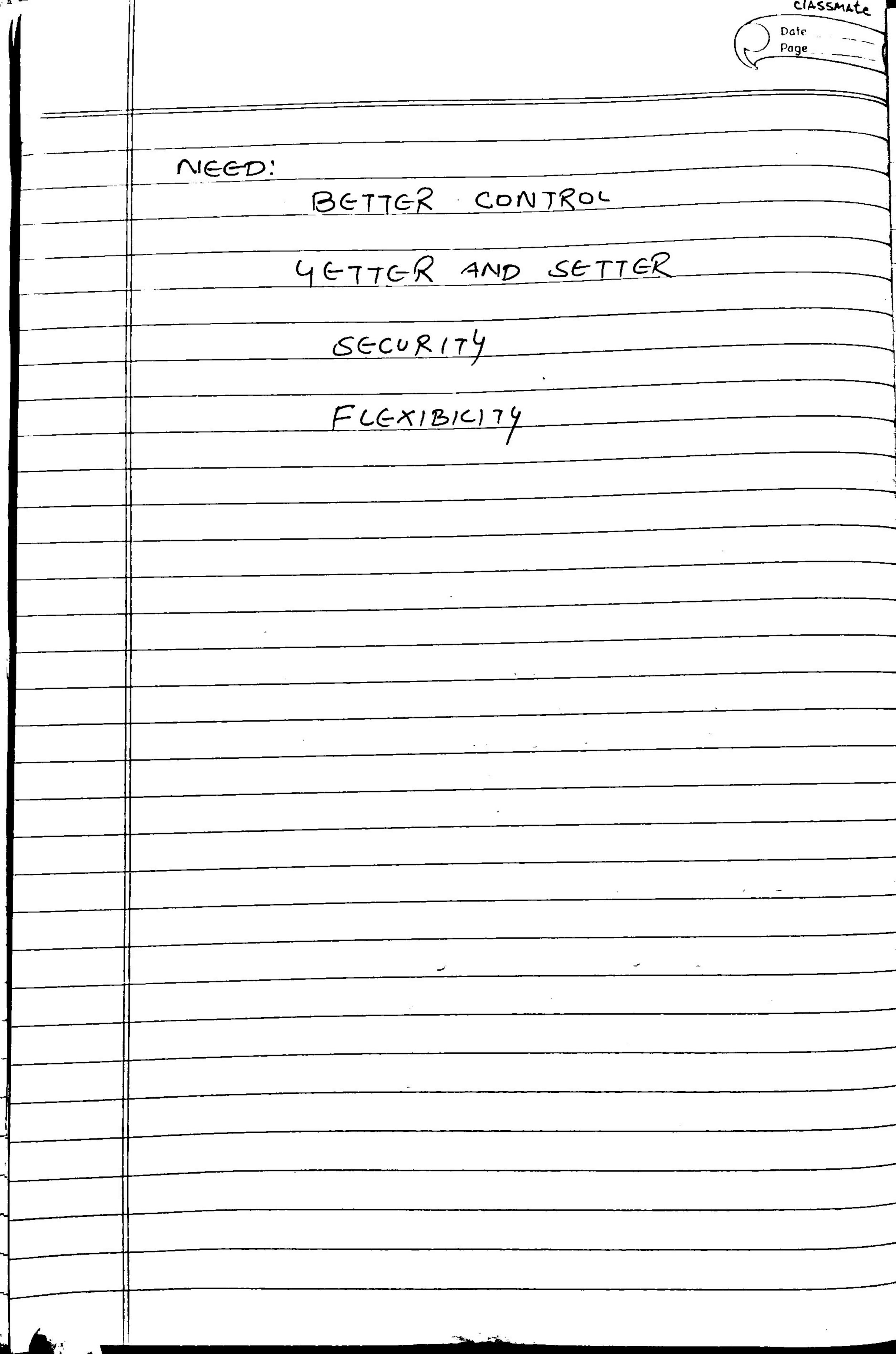
This may do to con only be occessed by public mercods thus making the private Frelds and their implementation hidden for outside classes. That's why encapsulation is known as dato hiding.

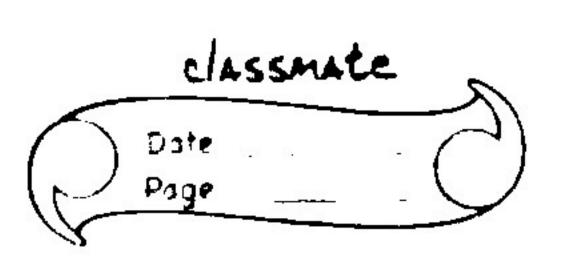
HOW TO IMPLEMENT ENCAPSUCATIONS:-

1. Make the instance variables private
soffney cannot be accessed
directly from outside the
class. You can only set and get
values of these variables through
the methods of the class.

2. Hove getter and setter methods in the class to set ond get the volues of the fields.

	NOTE
:	Javo beon class is the example of o
	Fully encopsulated closs.
	ADVANTAGE:-
*	By providing only a setter or getter merod,
	you can make the class read-only or
	Write-only. On other words, you can
	skip the getter or setter methods.
*	9t provides you the control over the
	data
	Suppose
	You mont to set the value of id
	ninich should be greater kan 100
	only rie con virite re logic inside
	the setter method. We can write
	the logic not to store the
	negotive numbers in the setter
	mercods.
*	
	Deto Hiding
*.	The standard inches
	The stondord ine's ore providing the
	Facility to generate the getter and
	setters so
	it is easy and Fost to create
	on encepsujated class in Joua.





DATA-HIDING

Data hiding is a procedure done to avoid occess to the data members and their logical implementation. Data hiding can be done by using the occess specifiers.

Four access specifier:

- Defoult: Defoult is the first line

 of doto hiding. 9F ony

 closs in Jova is not mentioned

 with on occess specifier, then

 the compiler will set idefoult!

 as the occess specifier, the

 occess specifications of defoult

 ore extremely similar to Pat

 of the public occess specifies.
- (ii) Public
- (iii) Privote
- Protected: The product access specified

 protects the closs marrod and

 members similar to the private

 access specifier. The main

 difference is that the access is

 limited to the entire package

 unlike only a class nite re

 private access specified