

```
3 class Alpha {
4
5     Alpha()
6     {
7         System.out.println("Empty Args");
8     }
9     Alpha(int x)
10    {
11        this();
12        System.out.println("int x = "+x);
13    }
14    Alpha(int x,int y)
15    {
16        this(x);
17        System.out.println("int y = "+y);
18    }
```

```
8  
9  
10 Alpha(int x)  
11 {  
12     this();  
13     System.out.println("int x = "+x);  
14 }  
15 Alpha(int x,int y)  
16 {  
17     this(x);  
18     System.out.println("int y = "+y);  
19 }  
20 public static void main(String[] args) {  
21     Alpha a1=new Alpha(10,20);  
22 }  
23
```

```
1 package constructor;  
2  
3 public class Student {  
4     String sname;  
5     int age;  
6     long cno;  
7  
8     Student() {  
9         System.out.println("Student Details");  
10    }  
11    Student(String sname)  
12    {  
13        this();  
14        this.sname=sname;  
15    }  
16    Student(String cname int age)
```



```
Eclipse Java Batchers - WeekendCamp/Nonstatic/constructor/Student.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
C:\java\Alpha\java\Student.java StudentDriver.java
11 Student(String sname)
12 {
13     this();
14     this.sname=sname;
15 }
16 Student(String sname,int age)
17 {
18     this(sname);
19     this.age=age;
20 }
21 Student(String sname,int age, long cno)
22 {
23     this(sname, age);
24     this.cno=cno;
25 }
26 void printDetails()
```

```

16 Student(String sname,int age)
17 {
18     this(sname);
19     this.age=age;
20 }
21 Student(String sname,int age, long cno)
22 {
23     this(sname, age);
24     this.cno=cno;
25 }
26 void printDetails()
27 {
28     System.out.println("Student Name : "+sname);
29     System.out.println("Student Age : "+age);
30     System.out.println("Student Cno : "+cno);
31 }

```

```
1 package constructor;  
2  
3 public class StudentDriver {  
4  
5     public static void main(String[] args) {  
6         Student s1=new Student("Dilip", 22, 9090908787L);  
7         s1.printDetails();  
8     }  
9  
10 }  
11
```



```
3 public class Insta {
4     private String userName;
5     private String pwd;
6
7     // setter-->To initialize private dataMember
8     public void setUsername(String userName) {
9         this.userName = userName;
10    }
11
12    public void setPwd(String pwd) {
13        this.pwd = pwd;
14    }
15
16    // getter-->To access private dataMem from class to class
17    public String getUsername()
18    {
```

```
8  
9 public void setUsername(String userName) {  
10     this.userName = userName;  
11 }  
12  
13 public void setPwd(String pwd) {  
14     this.pwd = pwd;  
15 }  
16  
17 // getter-->To access private dataMem from class to class  
18 public String getUsername()  
19 {  
20     return userName;  
21 }  
22 public String getPwd()  
23 {  
    return pwd;  
}
```



```
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```

```
public void setPwd(String pwd) {  
    this.pwd = pwd;  
}  
  
// getter-->To access private dataMem from class to class  
public String getUsername()  
{  
    return userName;  
}  
  
public String getPwd()  
{  
    return pwd;  
}  
}
```

```
Eclipse IDE
File Edit Source Window Help
InstaDriver.java x
InstaDriver.java x

3 public class InstaDriver {
4
5
6     public static void main(String[] args) {
7         Insta i1=new Insta();
8         /*
9          * i1.userName="Ae-Sun@123"; i1.pwd="Ae-Sun@123";
10          * System.out.println("Insta User : "+i1.userName);
11          * System.out.println("Insta Pwd : "+i1.pwd);
12          */
13         i1.setUserName("AK");
14         i1.setPwd("RedDragon@123");
15         System.out.println(i1.getUserName());
16         System.out.println(i1.getPwd());
17     }
}
```

90°F HAZE

Search

10:28:29

ENG IN

10/24/2024

### ACTIVITY :

1. Design the following

Facebook

- user\_name(r/w)
- user\_id(r)
- password(w)

7 KB



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ENG

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## Constructor Chaining:

-->Constructor chaining is a concept of a constructor calling another Constructor, so that n number of instance are created for only one Object.

this() call statement:

\*Constructor chaining is possible with the help of "this()" call statement.  
\*"this()" call statement is used to call constructor of current class.

What is OOP?

\*OOP stands for Object Oriented Programming.  
\*Procedural Programming is about Writing procedures or methods that perform operations on the data, while Object Oriented programming is about creating Object that contains both data and methods.

Advantage of OOP:

\*OOP is faster and easier to maintain.

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Constructor Chaining

- \* Constructor chaining is possible with the help of "this()" call statement.
- \* "this()" call statement is used to call constructor of current class.

What is OOP?

- \* OOP stands for Object Oriented Programming.
- \* Procedural programming is a programming paradigm that uses functions and procedures to perform operations on data.

What is OOP?

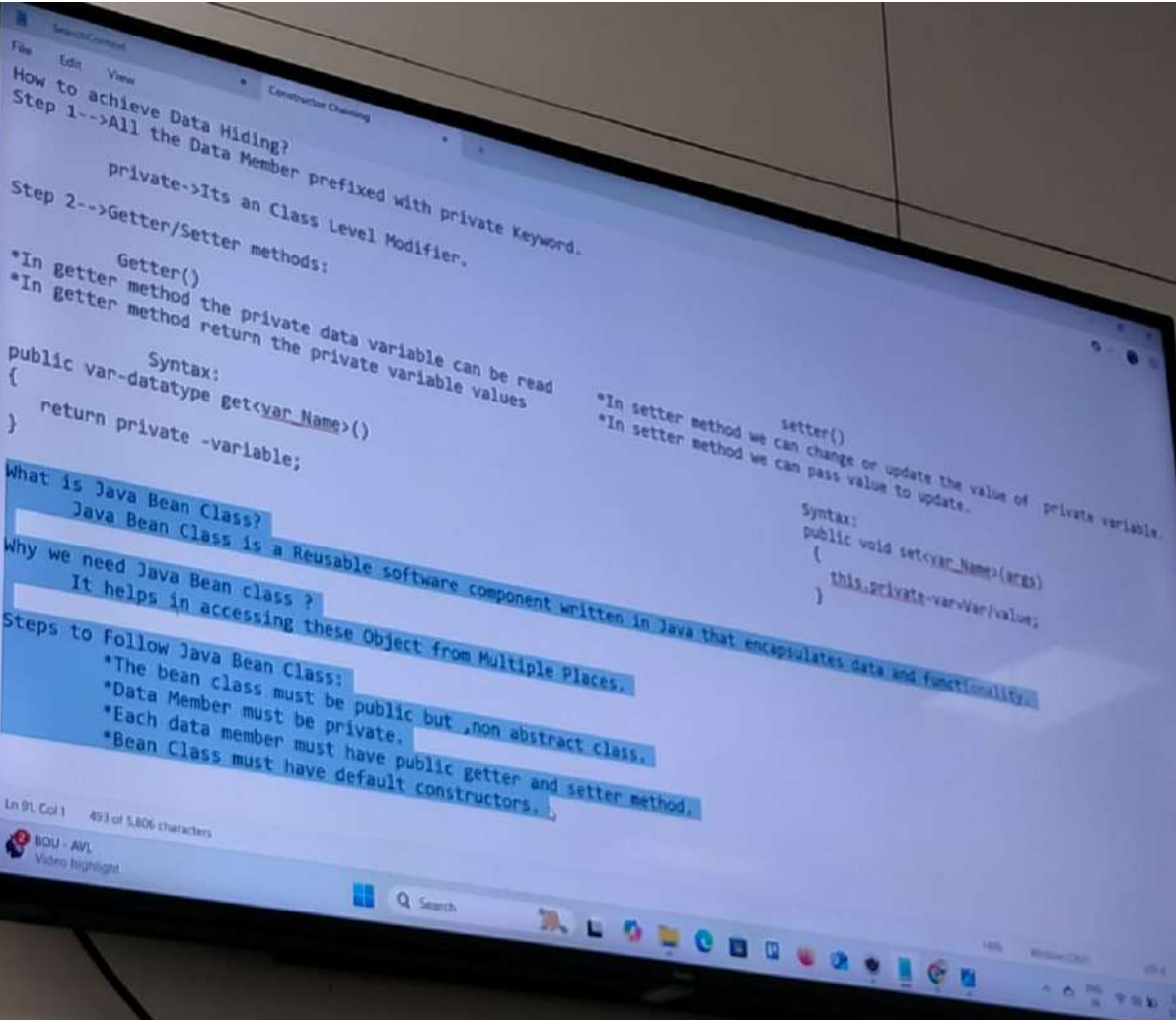
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Advantage of OOP:

- \* Advantage of OOP:
  - \* OOP is faster and easier to Execute.
  - \* OOP provides a clear structure for the programs.
  - \* OOP helps to keep the java code DRY "Don't Repeat Yourself", and make the code easier to maintain, modify and debug.
  - \* OOP makes it possible to create full reusable application with less code and shorter development time.





Encapsulation:  
-->It is

Encapsulation:  
->It is Process of binding or wrapping up of data member, behavior as well as Object Together.

Advantage:  
\*We can Protect the data from unauthorized access.  
\*We can Perform data validation.  
\*We can Make the data readable and Writeable

what is meant by

Advantage:  
"We can..."

- \*We can Protect the data from unauthorized access.
- \*We can Perform data validation.
- \*We can Make the data readable and Writeable.

what is meant by Data Hiding?  
Data Hiding is a concept

How to achieve Data Hiding?  
Step 1-->All the Data

Step 1-->All the Data Member prefixed with private Keyword.

Step 2-->Getter/Setter method

Step 2-->Getter/Setter methods:

Getter()

```

    Getter()
    *In getter method the private data variable can be read
    *In getter method return the private variable values
    public
    Syntax:

```

```
Syntax:
public var-datatype get<var_Name>()
{
    return private -variable;
}
```

**Syntax:**

```
Syntax:
public var-datatype get<var_Name>()
{
    return private -variable;
}
```

```

    setter()
    *In setter method we can change or update the value of private variable.
    *In setter method we can pass value to update.

```

letter()

### Syntax:

```
public void setCar_Name(String s)
{
    this.private-var=Var/value;
}
```

### What is Java Bean Class?

Ln 23, Col 1 587 of 5,806 characters

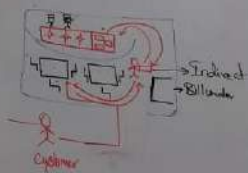
## OOP

- Access Specifier
- Encapsulation
- Relationship
- Inheritance
- Typecasting
- Polymorphism
- Abstraction
- Final Modifier

### Encapsulation

- Binding or wrapping up the data member and function into a single unit
- non public var
- non public method

### Data Hiding



How to achieve Data Hiding?

Step 1: Define with private

private datatype variable = value/Address;

Step 2:

Getters & Setters

→ If accept only one private distribution

Getter()

```
[AM] datatype getVariable()
{
    return private;
}
```

Setter()

```
[AM] void SetVariable(private)
{
    private type/operation = local var;
}
```

local variable

## OOP

- Access Specifier
- Encapsulation
- Relationship
- Inheritance
- Type casting
- Polymorphism
- Abstraction
- Final Modifier

### Access Specifier

Access Specifier	within class	within Package	Subpackage Through Subclass	Outpackage
private	Yes	No	No	No
default	Yes	Yes	No	No
protected	Yes	Yes	Yes	No
public	Yes	Yes	Yes	Yes

### Project Design Identification

- + → public
- → private
- # → protected



## Constructor chaining

class Alpha

{

Alpha()

{

}

Alpha(int x){

}

Alpha(int x, int y){

}

}

this() call statement