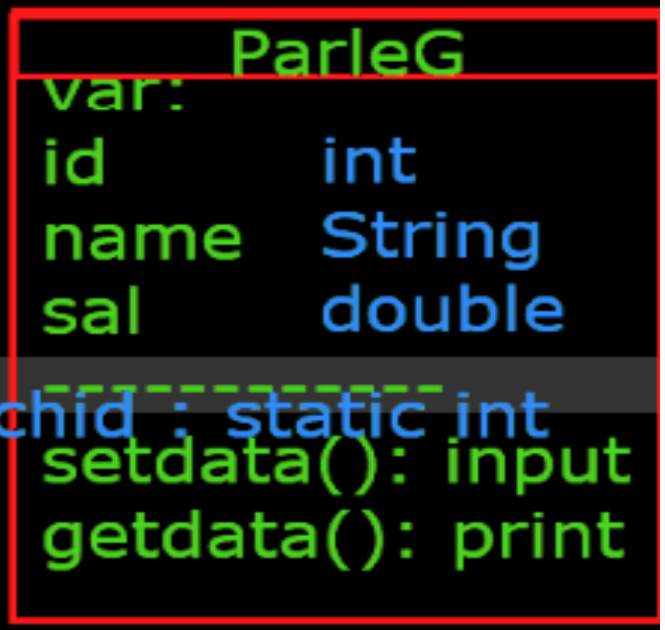
Concepts of Programming
Day 4: March 2022

Kiran Waghmare

```
class ParleG
{
    int id;
    String name;
    double sal;
    static String branchid="Transport";

    void setdata(int id, String name, double sal)
    {
    }

        public static void main(String args[])
    {



    }

}
```



```java
int id;
String name;
double sal;
static String branchid="Transport";

void setdata(int empid, String empname, double empsal)
{
    id=empid;
    name=empname;
    sal=empsal;

}

void getdata()
{
    System.out.println("Emp id ="+ id);
    System.out.println("Emp name ="+ name);
    System.out.println("Emp sal ="+ sal);
}

    public static void main(String args[])
{
    ParleG e1 = new ParleG();
    e1.setdata(111,"Amit",10000);
    e1.getdata();


}
```

Mouse Select Text Draw Stamp Spotlight Eraser Format

Who can see what you share here? Recording

ParleG
var:
id int
name String
sal double
branchid : static int
setdata(): input
getdata(): print

```
C:\CDAC22>javac ParleG.java

C:\CDAC22>java ParleG
Emp id =111
Emp name =Amit
Emp sal =10000.0

C:\CDAC22>
```

```
{
    System.out.println("Emp id ="+ id);
    System.out.println("Emp name ="+ name);
    System.out.println("Emp sal ="+ sal);
    System.out.println("Emp branchid ="+ branchid);
}
```

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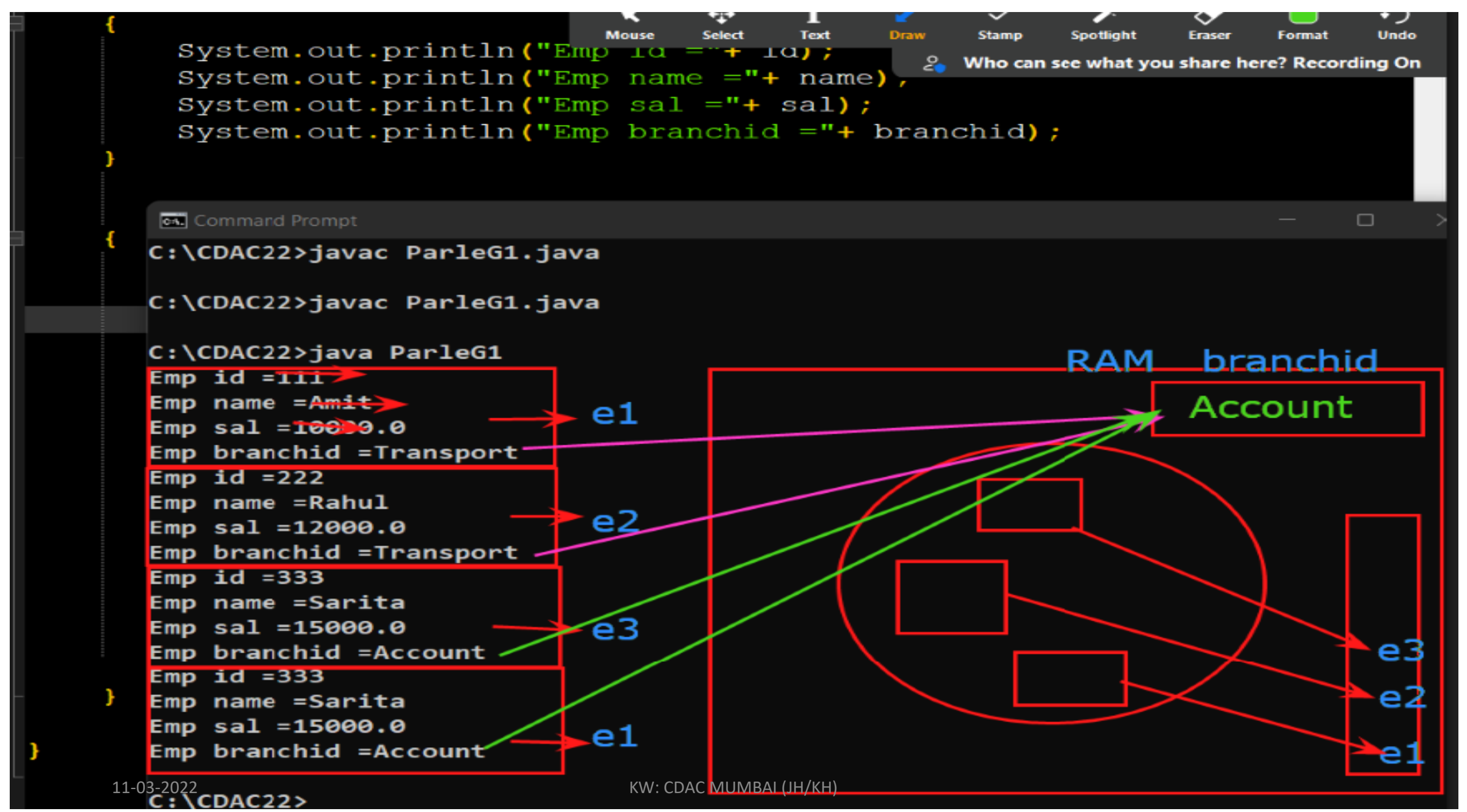
Command Prompt

```
C:\CDAC22>javac ParleG1.java

C:\CDAC22>javac ParleG1.java

C:\CDAC22>java ParleG1
Emp id =111
Emp name =Amit
Emp sal =10000.0
Emp branchid =Transport
Emp id =222
Emp name =Rahul
Emp sal =12000.0
Emp branchid =Transport
Emp id =333
Emp name =Sarita
Emp sal =15000.0
Emp branchid =Account
Emp id =333
Emp name =Sarita
Emp sal =15000.0
Emp branchid =Account

C:\CDAC22>
```



```
    System.out.println("Emp id ="+ id);
    System.out.println("Emp name ="+ name);
    System.out.println("Emp sal ="+ sal);
    System.out.println("Emp branchid ="+ branchid);
}
```

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Who can see what you share here? Recording On

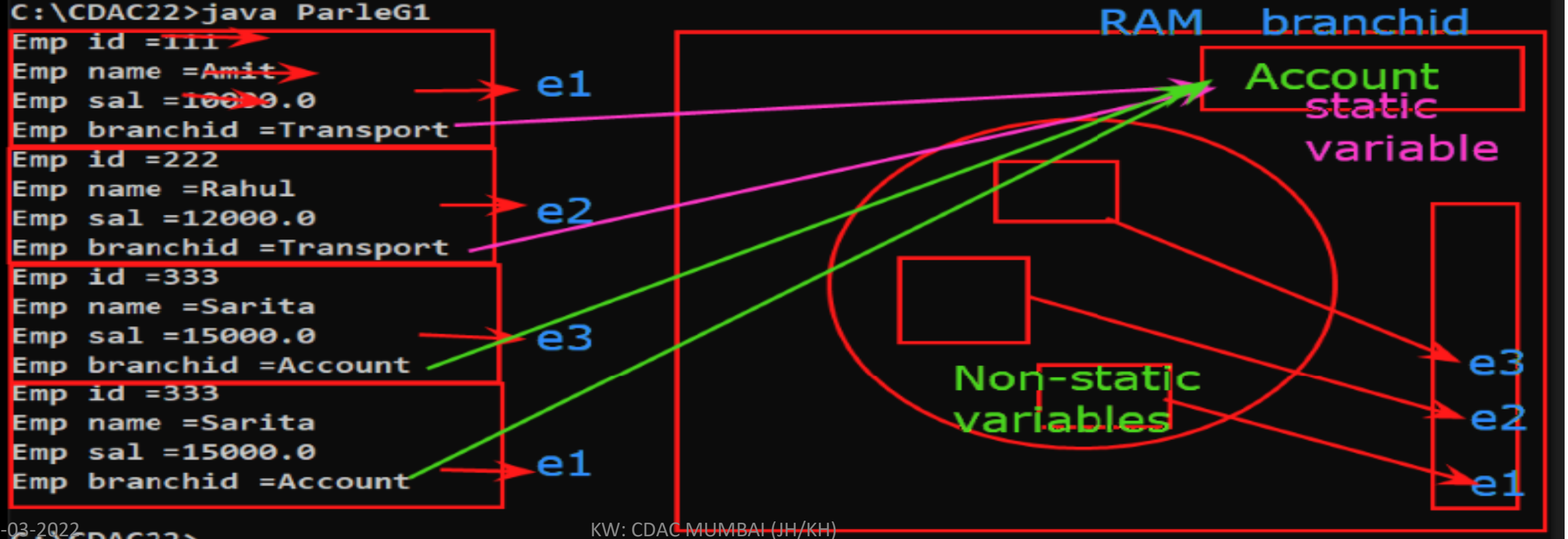
Command Prompt

```
C:\CDAC22>javac ParleG1.java

C:\CDAC22>javac ParleG1.java

C:\CDAC22>java ParleG1
Emp id =111
Emp name =Amit
Emp sal =10000.0
Emp branchid =Transport
Emp id =222
Emp name =Rahul
Emp sal =12000.0
Emp branchid =Transport
Emp id =333
Emp name =Sarita
Emp sal =15000.0
Emp branchid =Account
Emp id =333
Emp name =Sarita
Emp sal =15000.0
Emp branchid =Account

C:\CDAC22>
```



```java
class ParleG2
{
    int id;
    String name;
    double sal;
    static String branchid="Transport";

    void setdata(int id, String name, double sal)
    {
        this.id=id;
        this.name=name;
        this.sal=sal;

    }

    void getdata()
    {
        System.out.println("Emp id ="+ id);
        System.out.println("Emp name ="+ name);
        System.out.println("Emp sal ="+ sal);
        System.out.println("Emp branchid ="+ branchid);
    }

        public static void main(String args[])
    {
        ParleG2 e1 = new ParleG2();
        ParleG2 e2 = new ParleG2();
        ParleG2 e3 = new ParleG2();
        e1.setdata(111,"Amit",10000);
        e1.getdata();

        e2.setdata(222,"Rahul",12000);
        e2.getdata();
```

```
class ParleG2
{
    int id;
    String name;
    double sal;
    static String branchid="Transport";

    void setdata(int id, String name, double sal)
    {
        this.id=id;
        this.name=name;
        this.sal=sal;

    }

    void getdata()
    {
        System.out.println("Emp id ="+ id);
        System.out.println("Emp name ="+ name);
        System.out.println("Emp sal ="+ sal);
        System.out.println("Emp branchid ="+ branchid);
    }

        public static void main(String args[])
    {
        ParleG2 e1 = new ParleG2();
        ParleG2 e2 = new ParleG2();
        ParleG2 e3 = new ParleG2();
        e1.setdata(111,"Amit",10000);
        e1.getdata();

        e2.setdata(222,"Rahul",12000);
        e2.getdata();
```

```java
class ParleG2
{
    int id;
    String name;
    double sal;
    static String branchid="Transport";

    void setdata(int id, String name, double sal)
    {
        this.id=id;
        this.name=name;
        this.sal=sal;

    }

    void getdata()
    {
        System.out.println("Emp id ="+ id);
        System.out.println("Emp name ="+ name);
        System.out.println("Emp sal ="+ sal);
        System.out.println("Emp branchid ="+ branchid);
    }

        public static void main(String args[])
    {
        ParleG2 e1 = new ParleG2();
        ParleG2 e2 = new ParleG2();
        ParleG2 e3 = new ParleG2();
        e1.setdata(111,"Amit",10000);
        e1.getdata();

        e2.setdata(222,"Rahul",12000);
        e2.getdata();
```

Ques:1

sal= Basic+DA+incen

Baic=15000
Da=10%
inc=7%

Ques:2

Everyday :8 hrs
if <8hrs: 100 deduction

What will be the impact on your program ?

```java
class Operation
{
    void add(int x, int y)
    {
        int z = x+y;
        System.out.println(z);
    }
}


class sum
{
    public static void main(String args[])
    {
        //sum s1 = new sum();
        Operation o1 = new Operation();
        o1.add(10,20);
    }
}
```

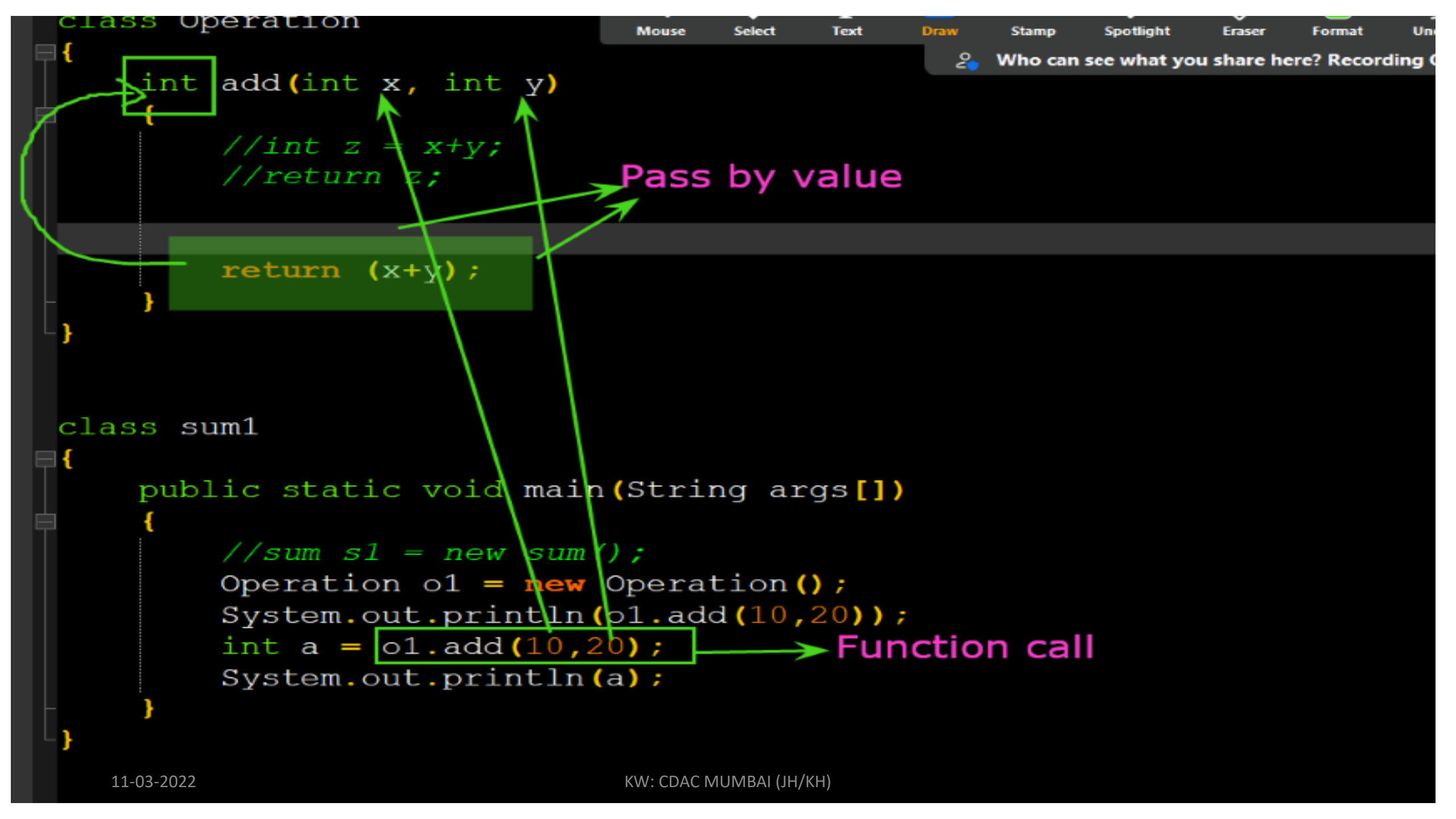
```java
class Operation
{
    int add(int x, int y)
    {
        int z = x+y;
        return z;
    }
}

class sum1
{
    public static void main(String args[])
    {
        //sum s1 = new sum();
        Operation o1 = new Operation();
        System.out.println(o1.add(10,20));
        int a = o1.add(10,20);
        System.out.println(a);
    }
}
```

z=local variable

Method 1

Mehod 2


Mouse
Select
Text
Draw
Stamp
Spotlight
Eraser
Format
Who can see what you share here? Recording
class Operation
{
int add(int x, int y)
{
//int z = x+y;
//return z;
return (x+y);
}
}
Pass by value
class sum1
{
public static void main(String args[])
{
//sum s1 = new sum();
Operation o1 = new Operation();
System.out.println(o1.add(10,20));
int a = o1.add(10,20);
System.out.println(a);
}
}
Function call

Constructors:

```
class Student
{
    Student()
    {

    }
}
```

Function

```
void display()
{

}
```

```
int x=55;

Student s1 = new Student();
```

Day 4: 11-03-2022

Topics:

- Constructors
- Access Specifiers
- Arrays

Constructors:

```
class Student
{
    Student()
    {

    }
}
```

Function

```
void display()
{

}
```

```
int x=55;
```

```
Student s1 = new Student();
```

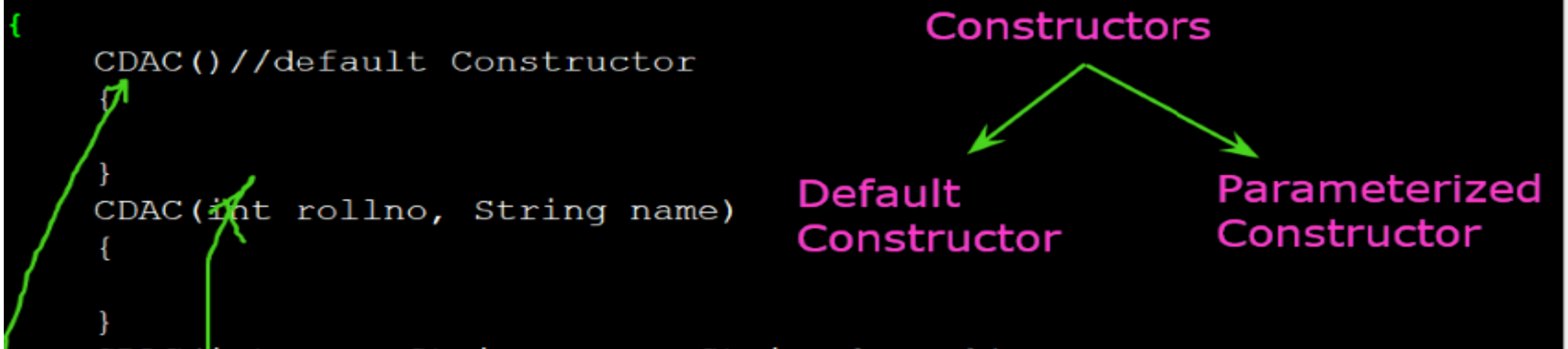
```
class CDAC
{
    CDAC()//default Constructor
    {

    }
    CDAC(int rollno, String name)
    {

    }
    CDAC(int prn, String name, String branch)
    {

    }

    public static void main(String args[])
    {
        CDAC c1 = new CDAC();//object create--> default
        CDAC c2 = new CDAC(33,"Bhavesh");----> 2nd const
        CDAC c3 = new CDAC(2124035067,"Ankit","Juhu");----> 2nd const
    }
}
```



```
double n;
CDAC()//default Constructor
{
    System.out.println("Default Const
}
CDAC( int x, double y)//default Const
{
    m=x;
    n=y;
    System.out.println("Parametrized
}
CDAC( double y, int x)//default Const
{
    m=x;
    n=y;
    System.out.println("Parametrized
}
CDAC( double y, int x, int z)//defaul
{
    m=x;
    n=y;
    int k=z;
    System.out.println("Parametrized
}
public static void main(String args[])
{
    CDAC c1 = new CDAC(23.45.6789);
    CDAC c2 = new CDAC(45.6789,5,9);
    //CDAC c1 = new CDAC();//object create--> invoke default

}
}
```

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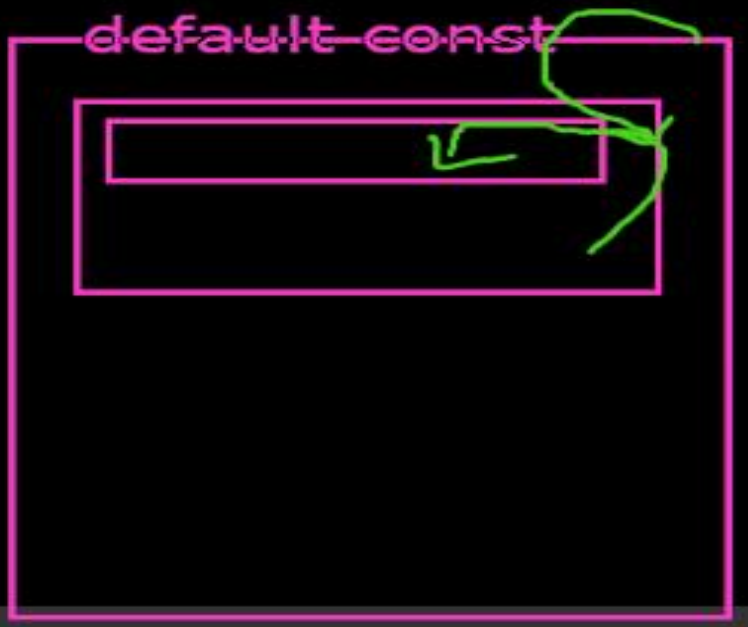
Who can see what you share here? Recording On

```
C:\CDAC22>jav
Parametrized Constructor !!!23 45.6789

C:\CDAC22>javac CDAC.java

C:\CDAC22>java CDAC
Parametrized Constructor !!!23 45.6789

C:\CDAC22>javac CDAC.java

C:\CDAC22>java CDAC
Parametrized Constructor !!!23 45.6789
Parametrized 3 Constructor !!!5 45.6789 9

C:\CDAC22>javac CDAC.java

C:\CDAC22>java CDAC
Parametrized Constructor !!!23 45.6789
Parametrized 3 Constructor !! 45.6789 5 9

C:\CDAC22>
```

```
class CDAC1
{
    int m;
    double n;
    CDAC()//default Constructor
    {
        System.out.println("Default Constructor !!!");
    }
    CDAC( int x, double y)
    {
        m=x;
        n=y;
        System.out.println("Parametrized Constructor !!!"+m+" "+n);
    }
    CDAC( double y, int x)
    {
        m=x;
        n=y;
        System.out.println("Parametrized 2 Constructor !!!"+m+" "+n);
    }

    CDAC( int y, int x, int z)
    {
        m=x;
        int n1=y;
        int k=z;
        System.out.println("Parametrized 3 Constructor !!!"+n1+" "+m+" "+k);
    }
    public static void main(String args[])
    {
        CDAC c1 = new CDAC(23,45.6789);
        CDAC c2 = new CDAC(4,5,6);
        CDAC c1 = new CDAC();//object create--> invoke default

    }
```

```java
class MEssage
{
    MEssage()
    {
        this("Arvind");//default set
        System.out.print("Hi Arvind !!!");
    }

    MEssage(String name)
    {

        System.out.print("Hi Girish!!!");
    }

    public static void main(String args[])
    {
        MEssage m = new MEssage();
    }
}
```



constructor chaining

```java
class MEssage
{
    MEssage()
    {
        this("Arvind");//Constructor chain
        System.out.println("Hi ----------!!!");
    }

    MEssage(String name)
    {

        System.out.println("Hi"+name+"!!!");
    }

    public static void main(String args[])
    {
        MEssage m = new MEssage();
        MEssage m1 = new MEssage("Radha");
    }
}
```

m2

```
Select Command Prompt

C:\CDAC22>javac MEssage.java

C:\CDAC22>java MEssage
HiArvind!!!Hi ----------!!!

C:\CDAC22>javac MEssage.java

C:\CDAC22>java MEssage
HiArvind!!!
Hi ----------!!!
HiRadha!!!
```

Array:

-array is an indexed collection of similar data elements thant has fixed size.

Syntax:
---

1. Array declaration:

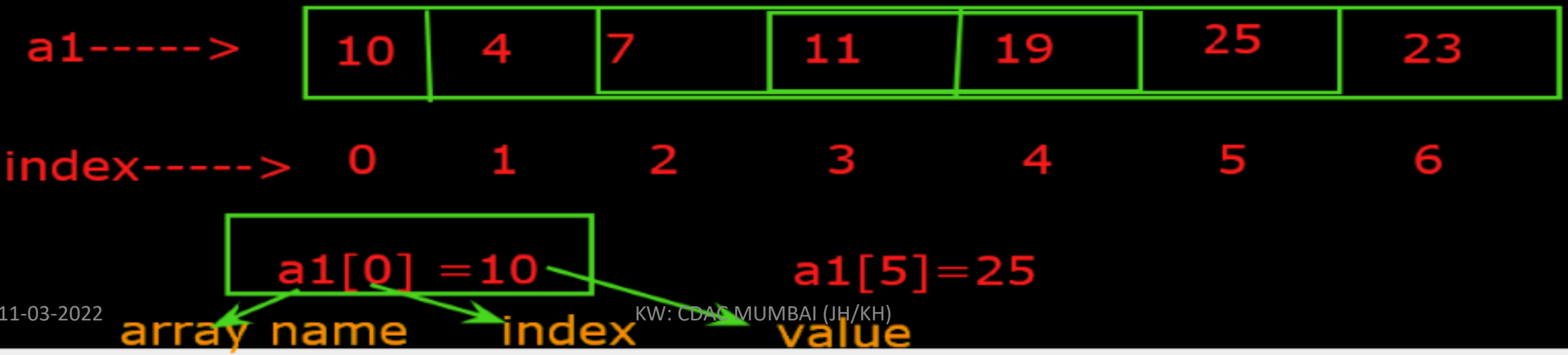
<datatype> < arrayname> [];

or

<datatype> [] < arrayname>;

2.Array creation:

<arrayname> = new <datatype>[size];



```java
import java.util.*;
class Array1
{

    public static void main(String args[])
    {
        int a1[] = new  int[5];
        Scanner sc = new Scanner(System.in);

        for(int i=0;i<=4;i++){
        a1[i] = sc.nextInt();

        }



        for(int i=0;i<=4;i++){

        System.out.println("Array element = "+a1[i]);
        }
    }
}
```