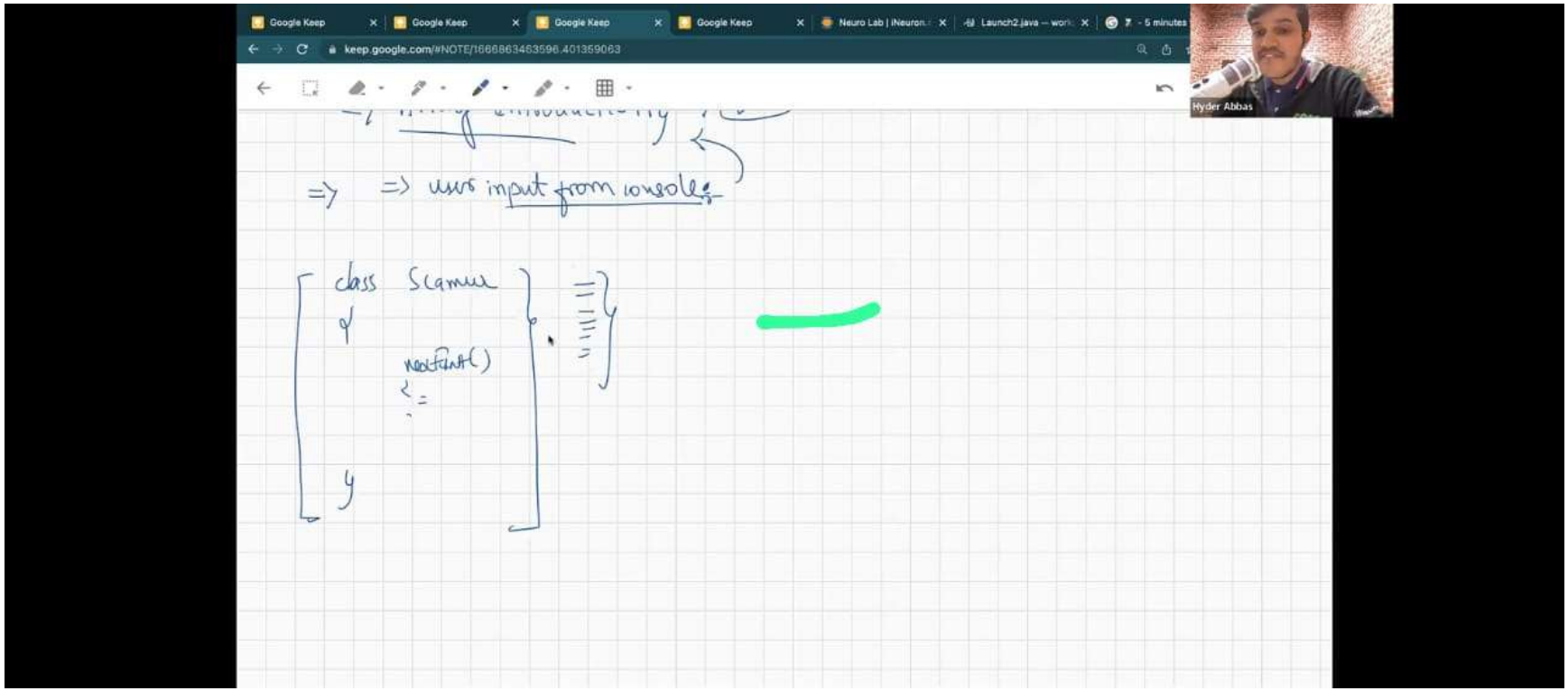
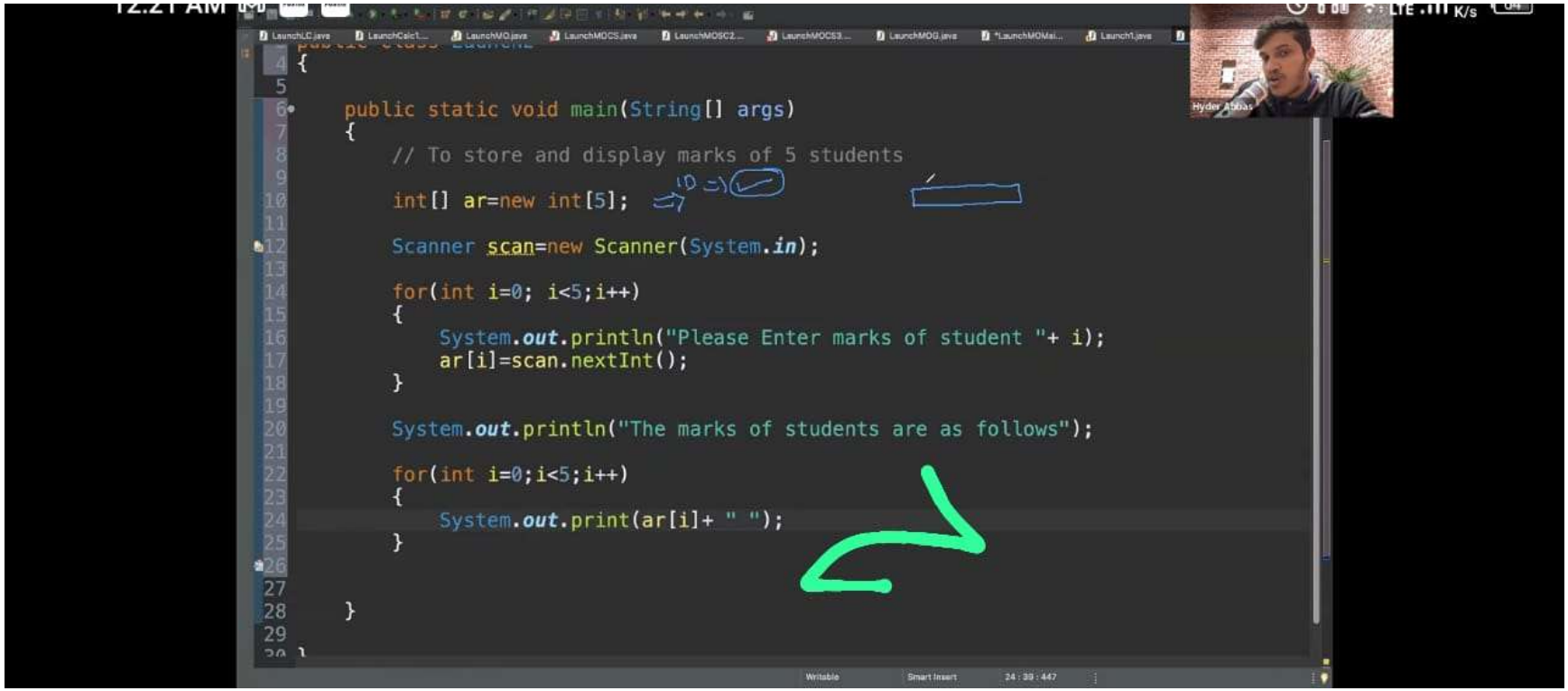
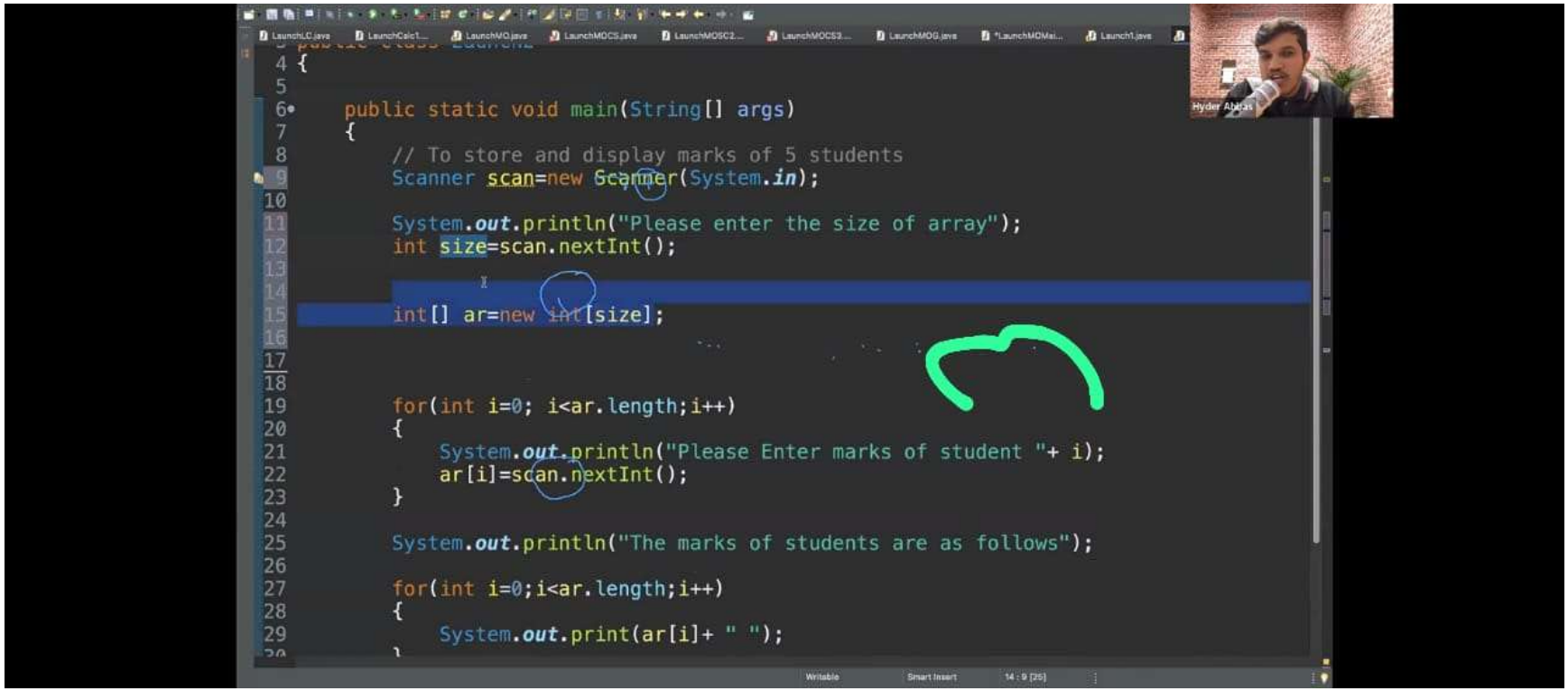
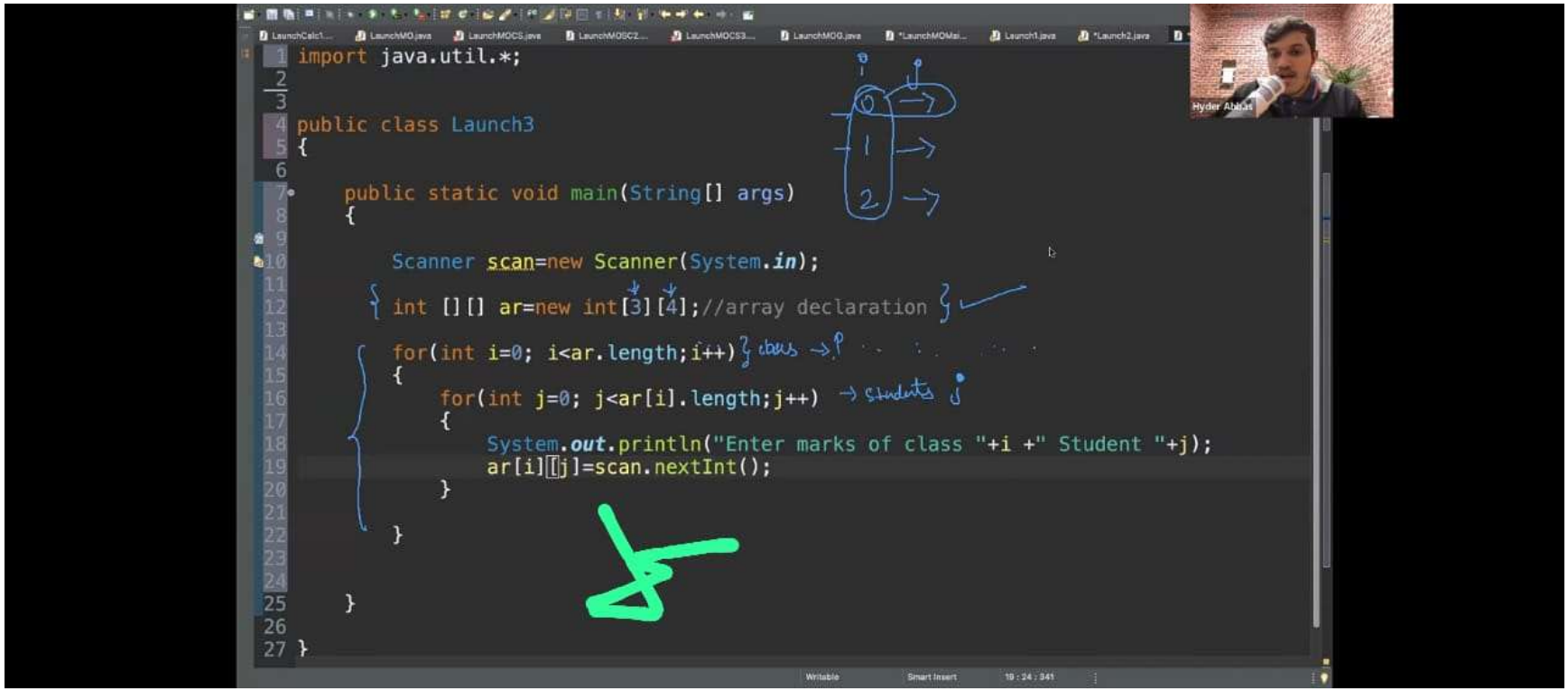
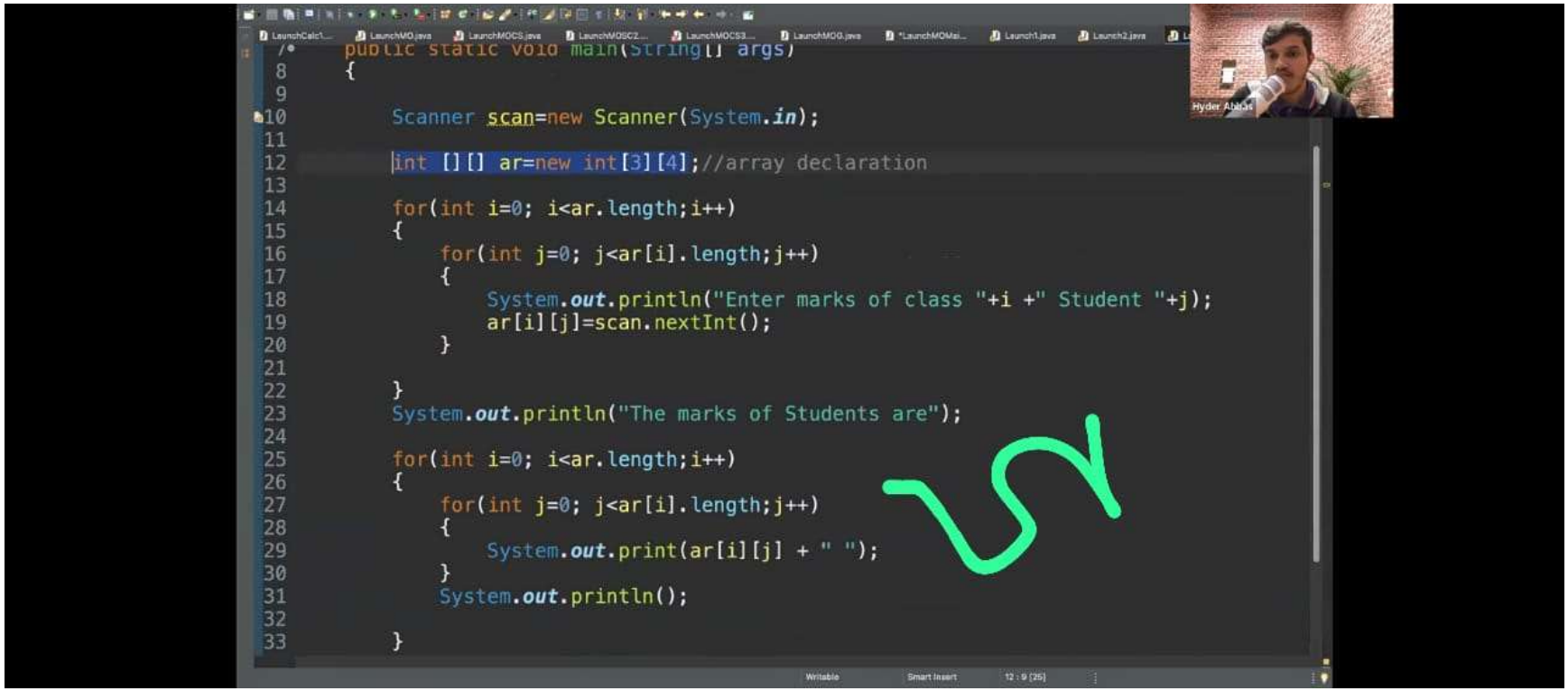
Java In Array

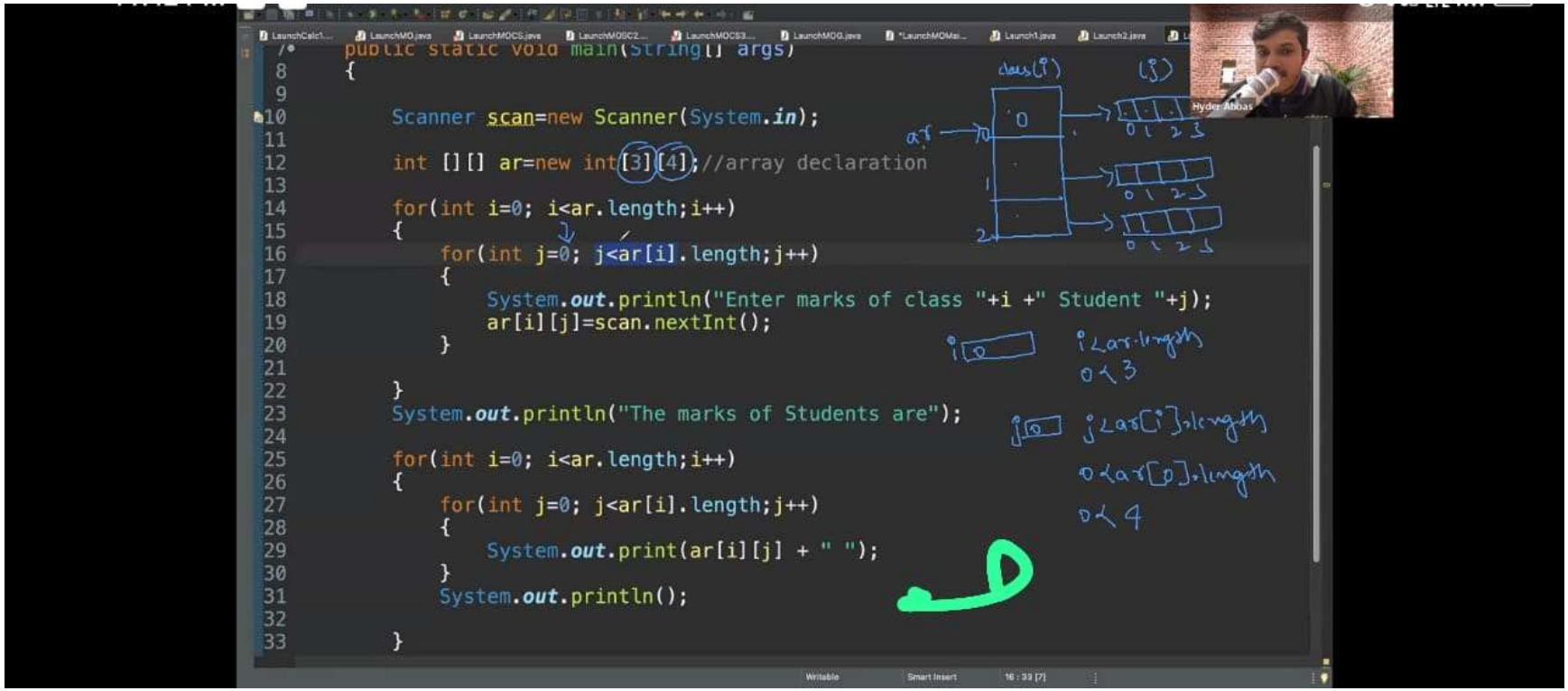


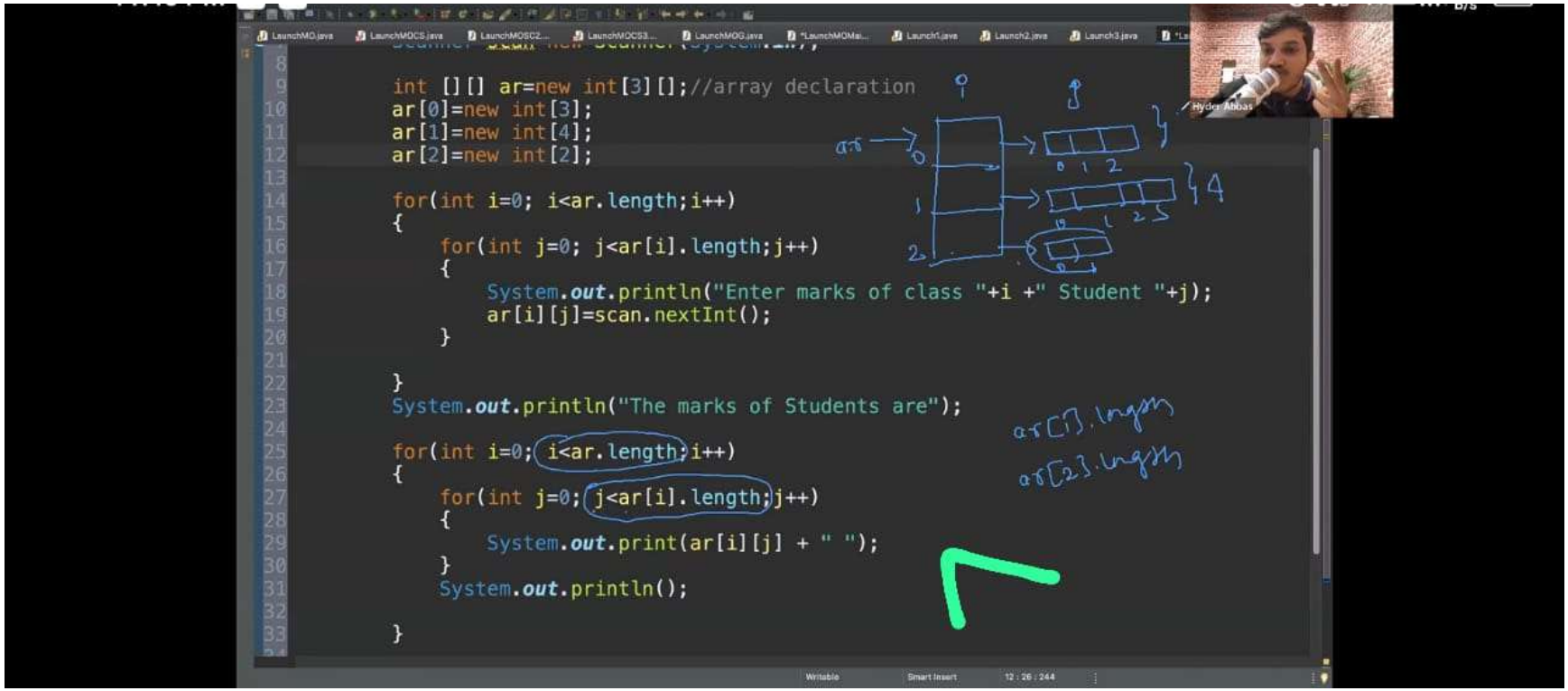

{
public static void main(String[] args)
{
// To store and display marks of 5 students
int[] ar=new int[5];
Scanner scan=new Scanner(System.in);
for(int i=0; i<5;i++)
{
System.out.println("Please Enter marks of student "+ i);
ar[i]=scan.nextInt();
}
System.out.println("The marks of students are as follows");
for(int i=0;i<5;i++)
{
System.out.print(ar[i]+ " ");
}
}
Hyder Abbas

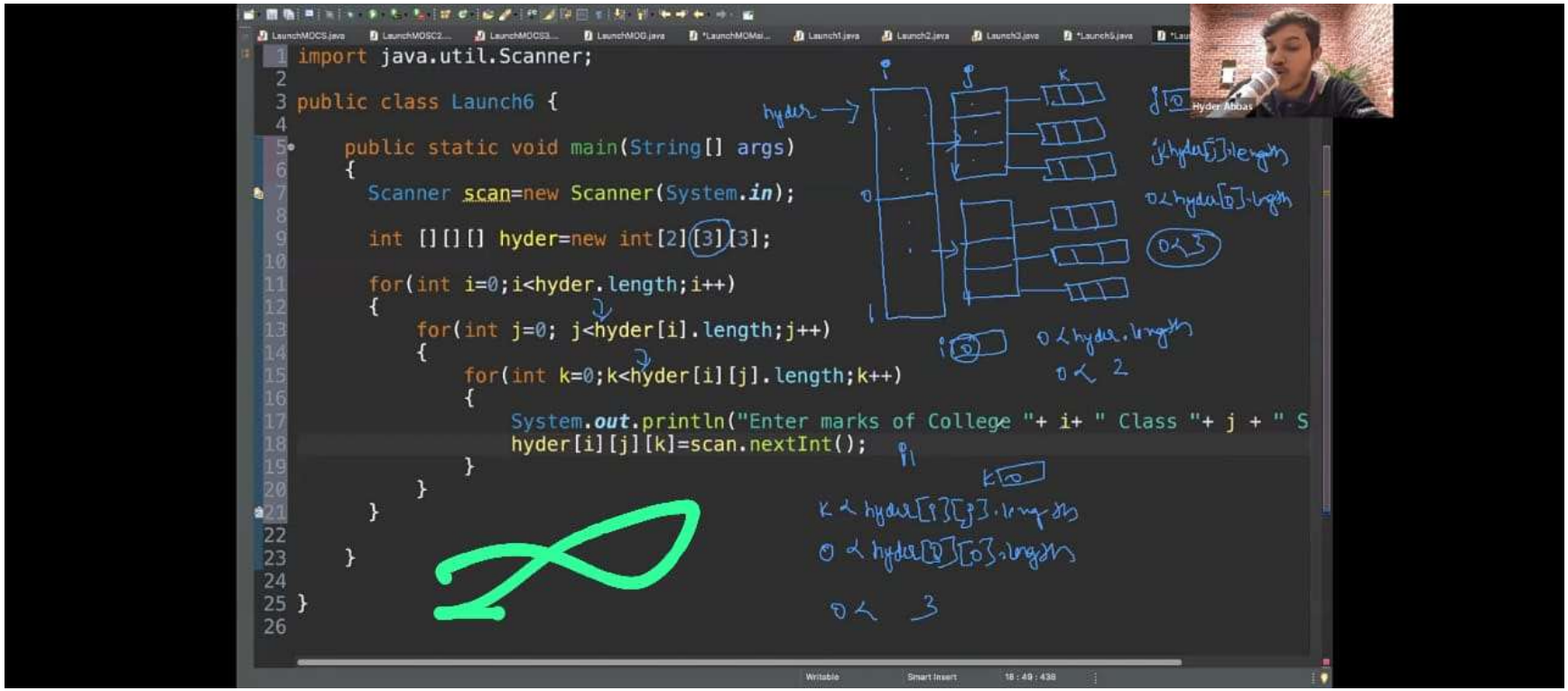

{
public static void main(String[] args)
{
// To store and display marks of 5 students
Scanner scan=new Scanner(System.in);
System.out.println("Please enter the size of array");
int size=scan.nextInt();
int[] ar=new int[size];
for(int i=0; i<ar.length;i++)
{
System.out.println("Please Enter marks of student "+ i);
ar[i]=scan.nextInt();
}
System.out.println("The marks of students are as follows");
for(int i=0;i<ar.length;i++)
{
System.out.print(ar[i]+ " ");
Writable
Smart Insert
14 : 9 [25]

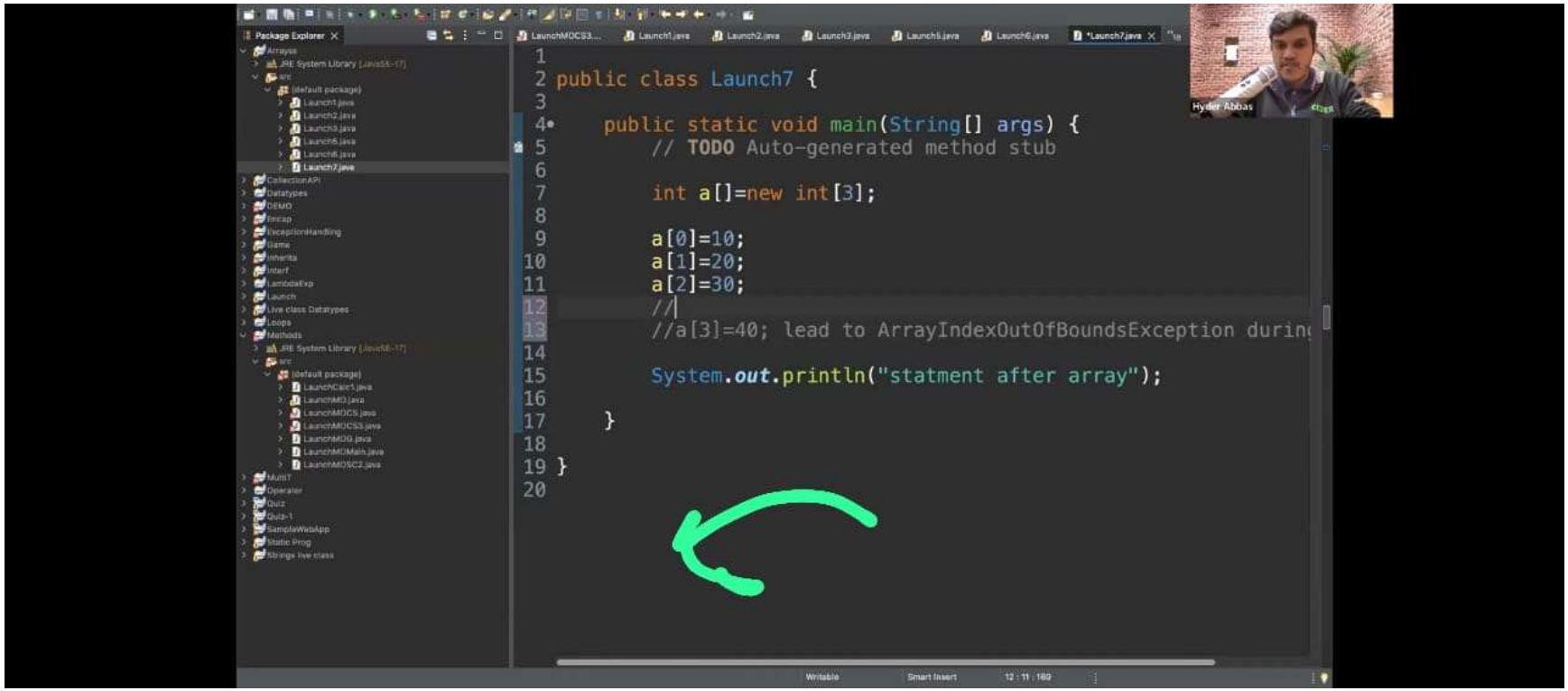

import java.util.*;
public class Launch3
{
public static void main(String[] args)
{
Scanner scan=new Scanner(System.in);
int [][] ar=new int[3][4];//array declaration
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.println("Enter marks of class "+i +" Student "+j);
ar[i][j]=scan.nextInt();
}
}
}
}
Hyder Abbas
Writable
Smart Insert
19 : 24 : 341

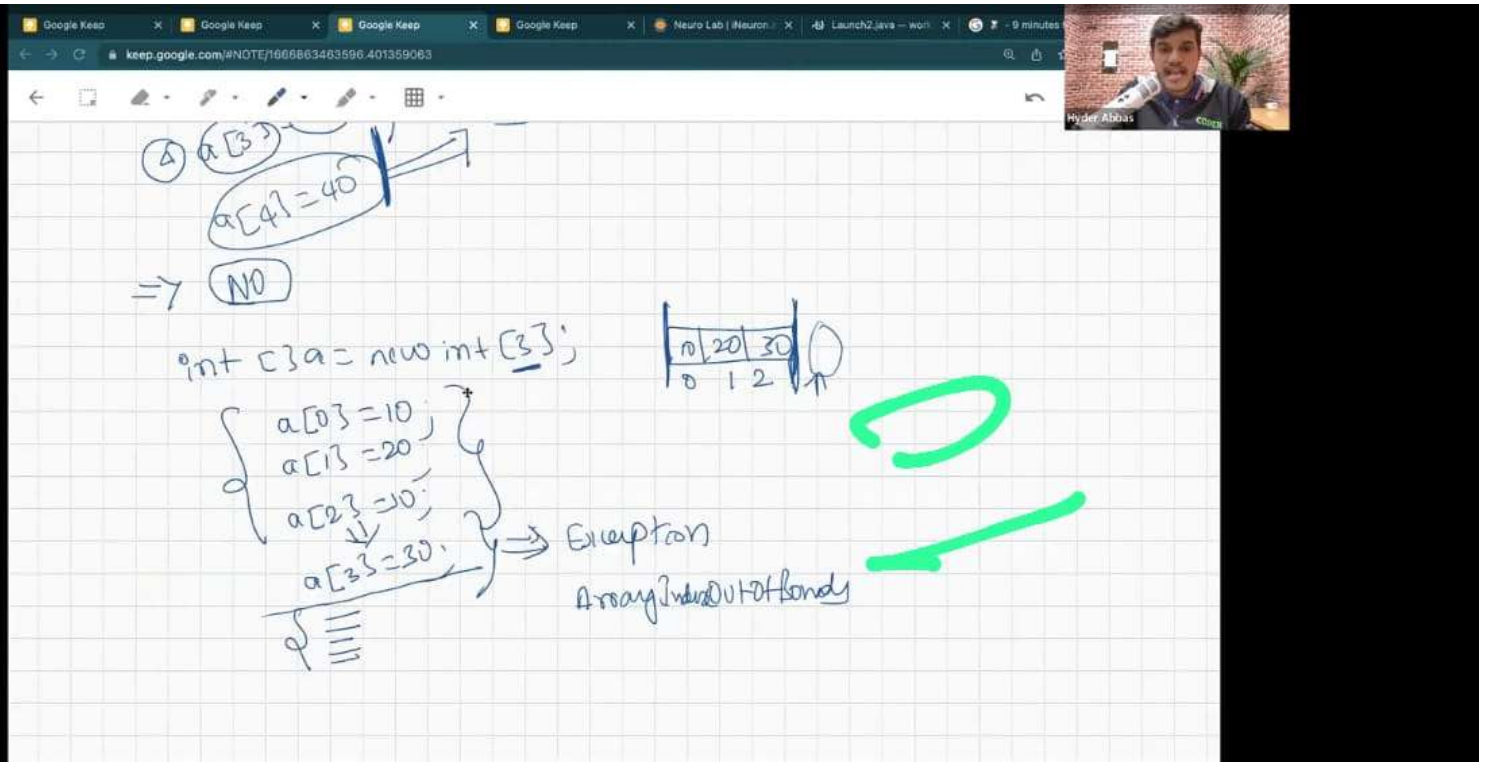

public static void main(String[] args)
{
Scanner scan=new Scanner(System.in);
int [][] ar=new int[3][4];//array declaration
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.println("Enter marks of class "+i +" Student "+j);
ar[i][j]=scan.nextInt();
}
}
System.out.println("The marks of Students are");
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.print(ar[i][j] + " ");
}
System.out.println();
}
Writable
Smart Insert
12 : 9 [25]

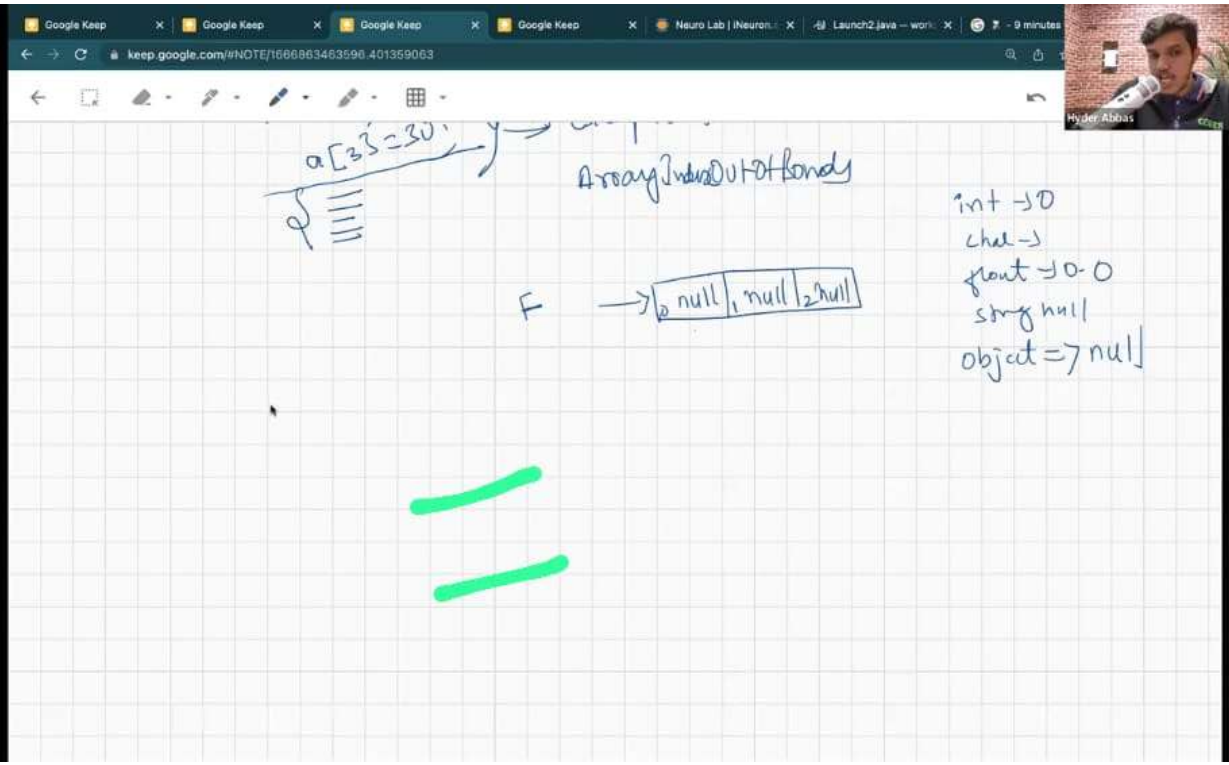

public static void main(String[] args)
{
Scanner scan=new Scanner(System.in);
int [][] ar=new int[3][4];//array declaration
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.println("Enter marks of class "+i +" Student "+j);
ar[i][j]=scan.nextInt();
}
}
System.out.println("The marks of Students are");
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.print(ar[i][j] + " ");
}
System.out.println();
}
class(i)
(j)
ar
i<ar.length
0<3
j<ar[i].length
0<ar[0].length
0<4
Hyder Abbas

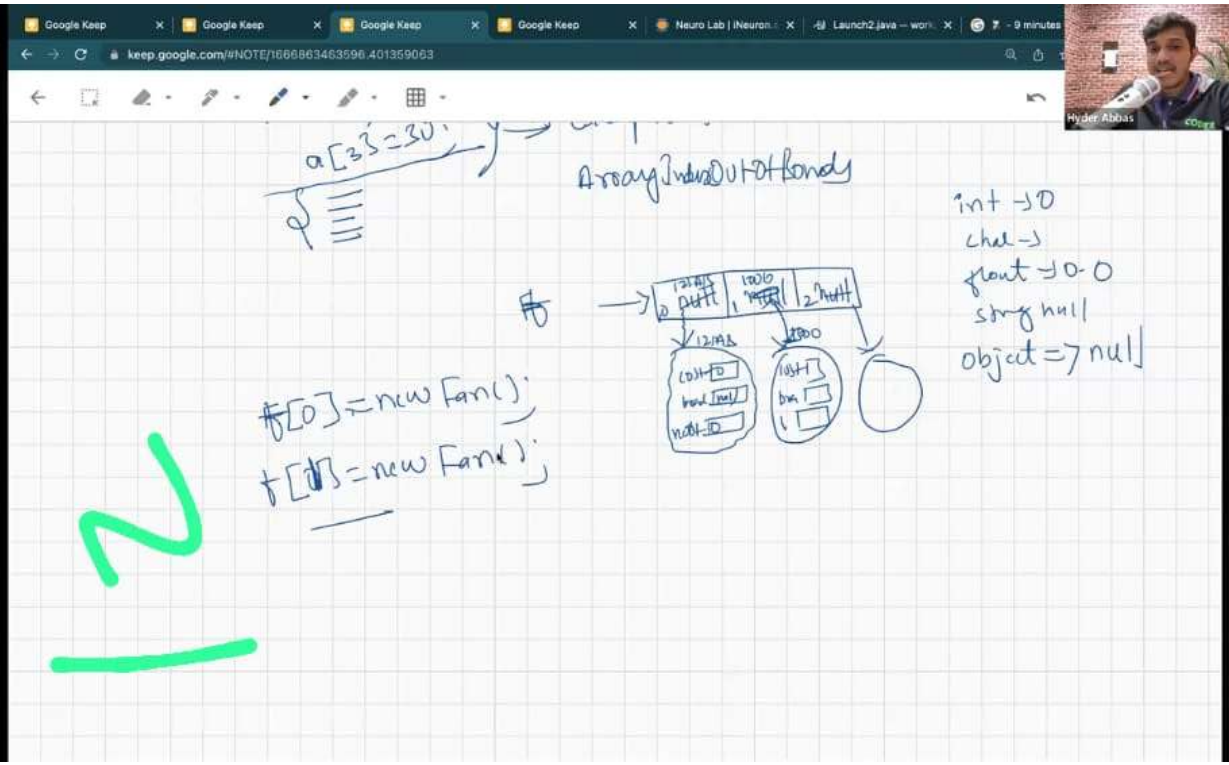

int [][] ar=new int[3][];//array declaration
ar[0]=new int[3];
ar[1]=new int[4];
ar[2]=new int[2];
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.println("Enter marks of class "+i +" Student "+j);
ar[i][j]=scan.nextInt();
}
}
System.out.println("The marks of Students are");
for(int i=0; i<ar.length;i++)
{
for(int j=0; j<ar[i].length;j++)
{
System.out.print(ar[i][j] + " ");
}
System.out.println();
}
ar[].length
ar[2].length
Writable
Smart Insert
12 : 26 : 244

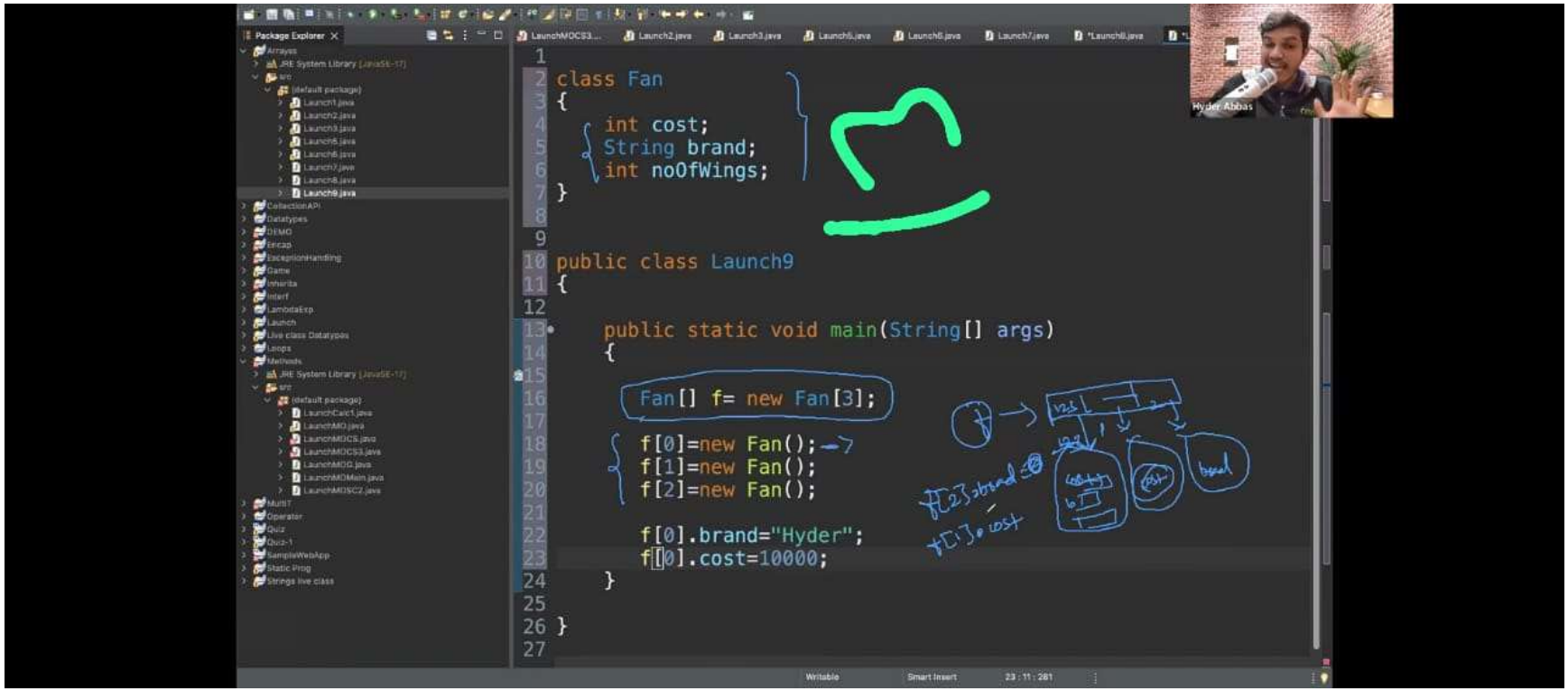

import java.util.Scanner;
public class Launch6 {
public static void main(String[] args)
{
Scanner scan=new Scanner(System.in);
int [][][] hyder=new int[2][3][3];
for(int i=0;i<hyder.length;i++)
{
for(int j=0; j<hyder[i].length;j++)
{
for(int k=0;k<hyder[i][j].length;k++)
{
System.out.println("Enter marks of College "+ i+ " Class "+ j + " S
hyder[i][j][k]=scan.nextInt();
}
}
}
}
}
Hyder Abbas

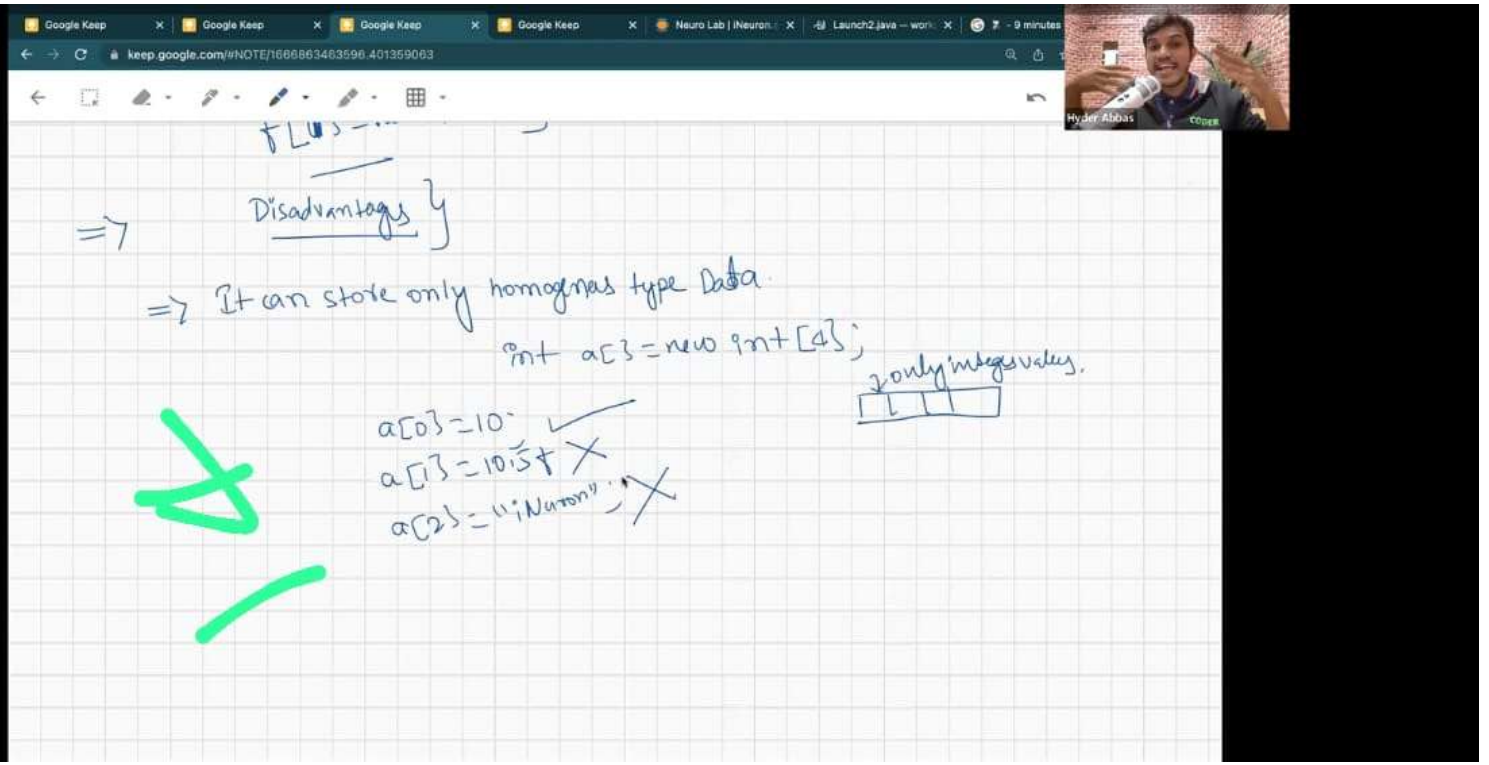

Package Explorer
LaunchMOCS3...
Launch1.java
Launch2.java
Launch3.java
Launch5.java
Launch6.java
*Launch7.java
Hyder Abbas
1 public class Launch7 {
2
3 public static void main(String[] args) {
4 // TODO Auto-generated method stub
5
6 int a[]=new int[3];
7
8 a[0]=10;
9 a[1]=20;
10 a[2]=30;
11 //
12 //a[3]=40; lead to ArrayIndexOutOfBoundsException durin
13
14 System.out.println("statment after array");
15
16 }
17
18 }
19
20
Writable
Smart Insert
12 : 11 : 169

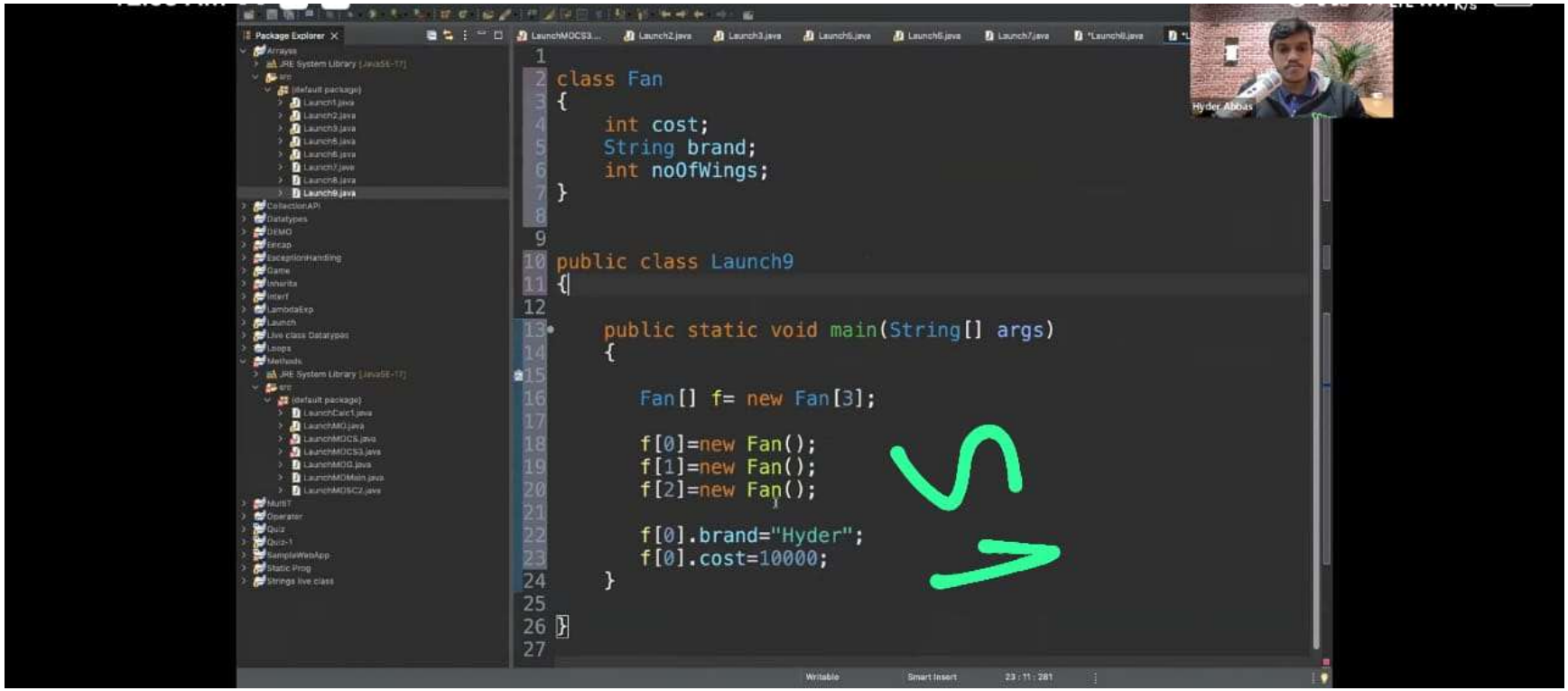

Google Keep
Google Keep
Google Keep
Google Keep
Neuro Lab | iNeuron
Launch2.java — work
keep.google.com/#NOTE/1666863463596.401359063
Hyder Abbas
a[3]
a[4]=40
NO
int[]a=new int[3];
a[0]=10;
a[1]=20;
a[2]=30;
a[3]=30;
Exception
ArrayIndexOutOfBounds
10 20 30
0 1 2

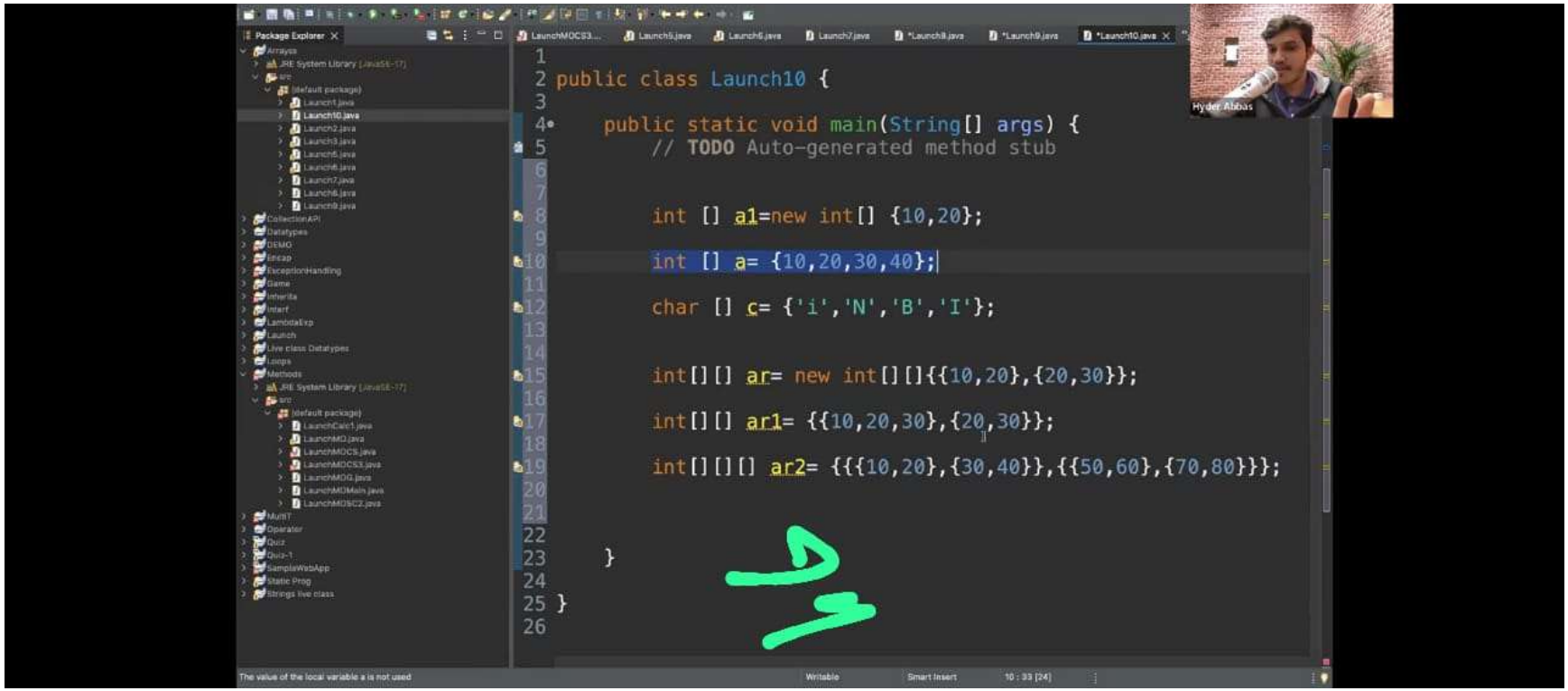

Google Keep
Google Keep
Google Keep
Google Keep
Neuro Lab | iNeuron
Launch2.java — work
9 minutes
keep.google.com/#NOTE/1666863463596.401359063
Hyder Abbas
a[3]=30;
ArrayIndexOutOfBoundy
F
0 null
1 null
2 null
int → 0
char →
float → 0.0
String null
object → null

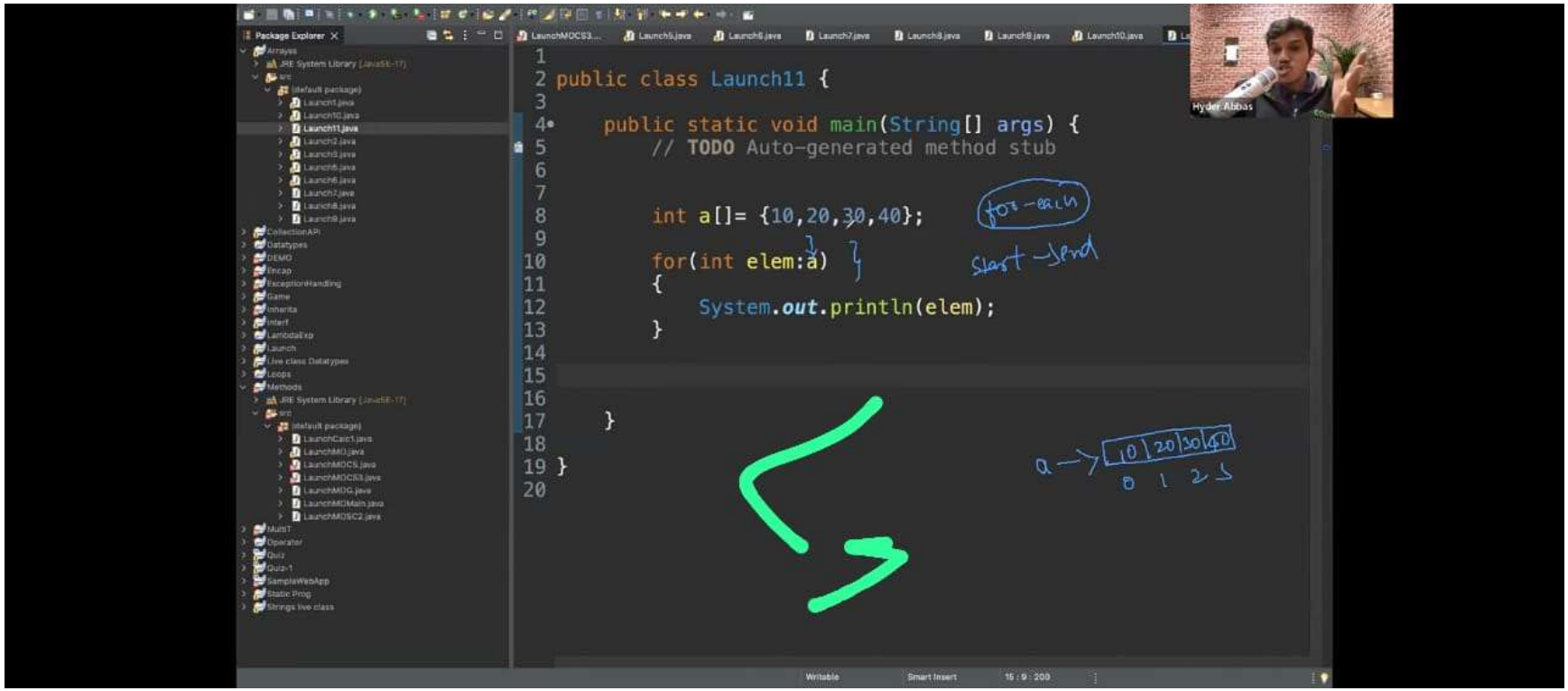

Google Keep
Google Keep
Google Keep
Google Keep
Neuro Lab | iNeuron
Launch2.java — work
9 minutes
keep.google.com/#NOTE/1666863463596.401359063
Hyder Abbas
a[3]=30;
ArrayIndexOutOfBoundy
int -> 0
char ->
float -> 0.0
String null
object => null
f[0]=new Fan();
f[1]=new Fan();

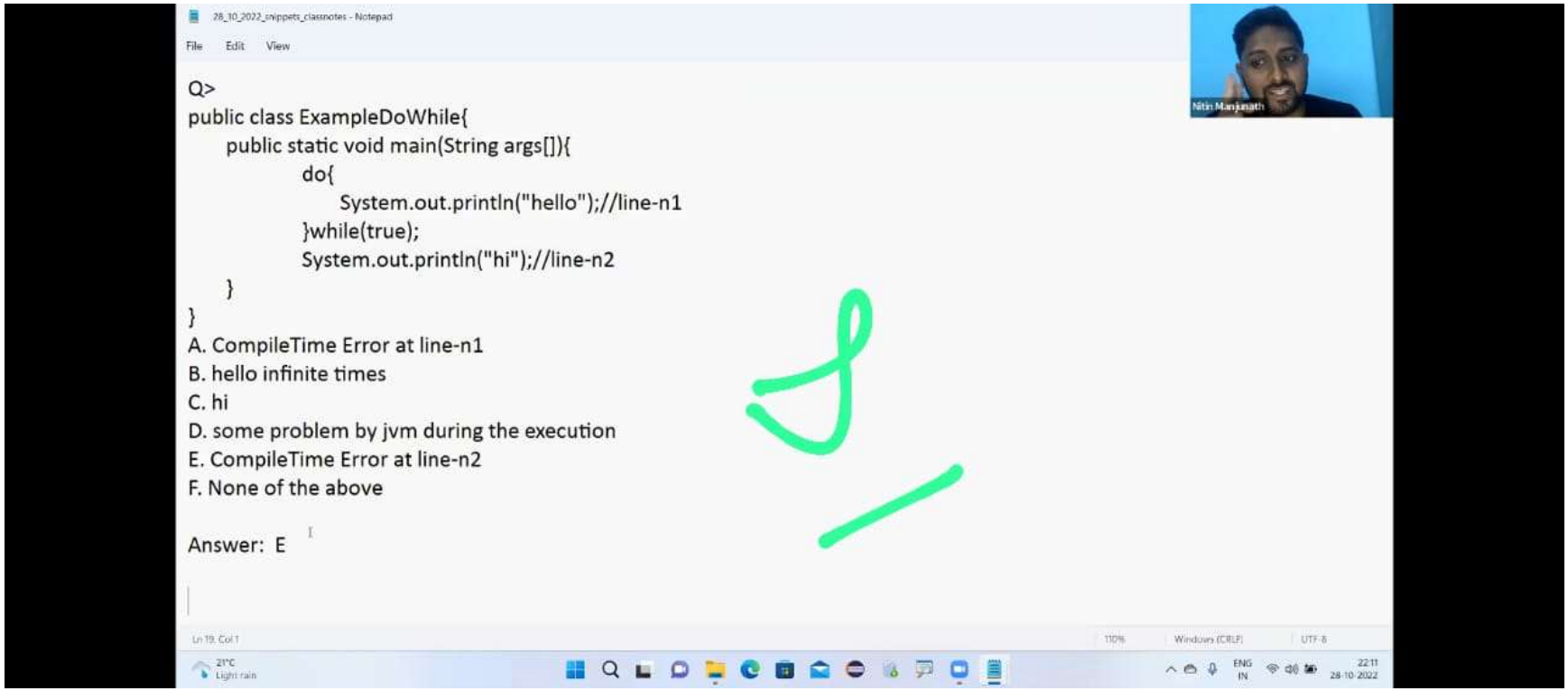

Package Explorer
Launch2.java
Launch3.java
Launch5.java
Launch6.java
Launch7.java
Launch9.java
Hyder Abbas
class Fan
{
int cost;
String brand;
int noOfWings;
}
public class Launch9
{
public static void main(String[] args)
{
Fan[] f= new Fan[3];
f[0]=new Fan();
f[1]=new Fan();
f[2]=new Fan();
f[0].brand="Hyder";
f[0].cost=10000;
}
}
Writable
Smart Insert
23 : 11 : 281

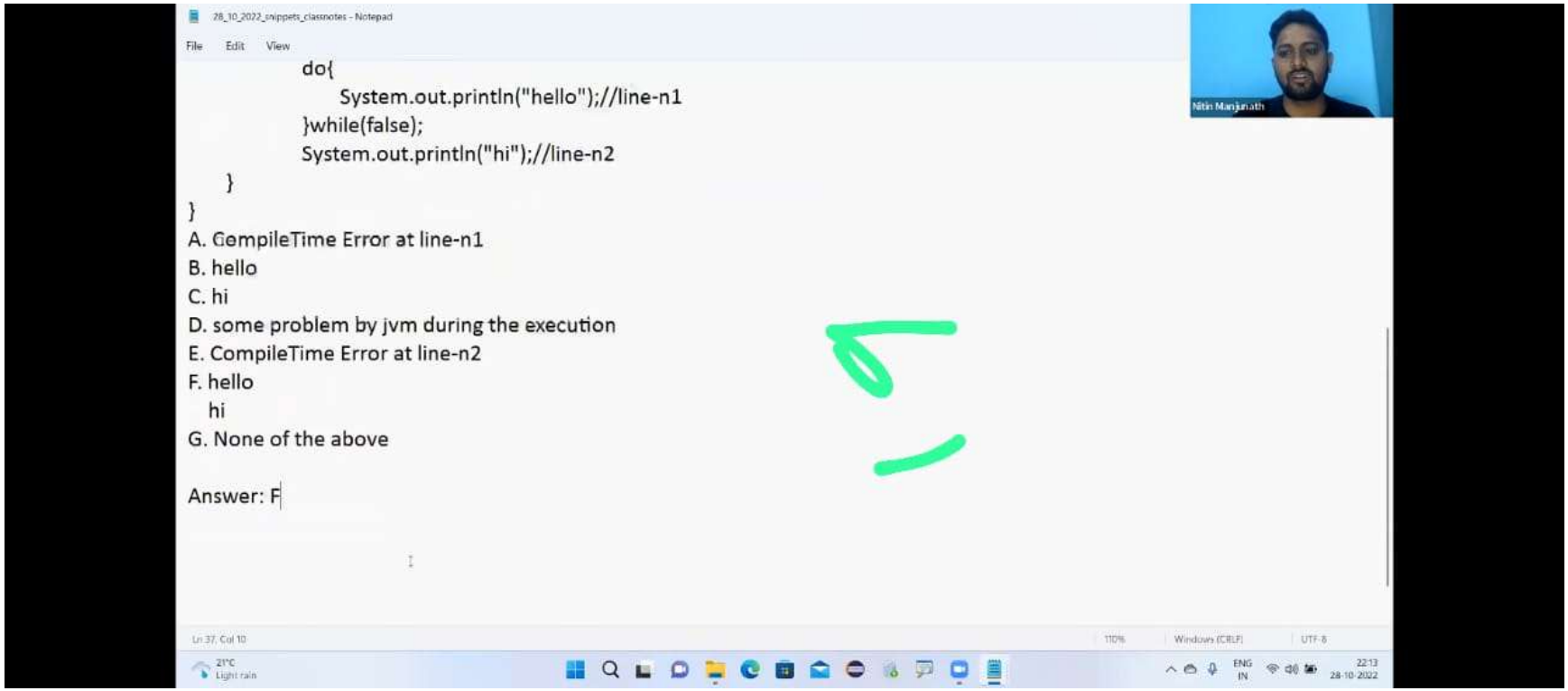

Google Keep
Google Keep
Google Keep
Google Keep
Neuro Lab | iNeuron
Launch2.java — work
9 minutes
keep.google.com/#NOTE/1666863463596.401359063
Hyder Abbas
Disadvantages
=> It can store only homogenes type Data.
int a[] = new int[4];
only integers values.
a[0] = 10;
a[1] = 10.5f
a[2] = "iNeuron"

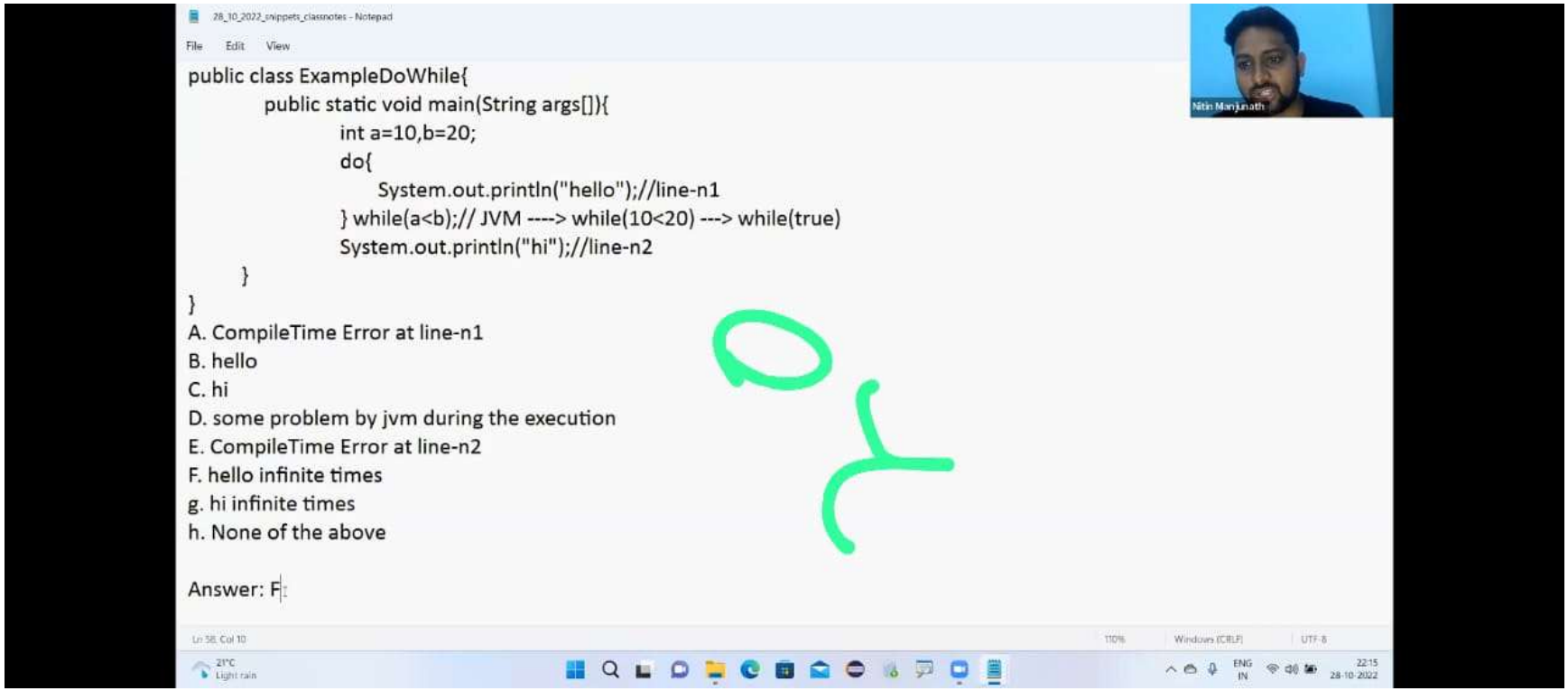

Package Explorer
Launch2.java
Launch3.java
Launch5.java
Launch6.java
Launch7.java
Launch9.java
Hyder Abbas
class Fan
{
int cost;
String brand;
int noOfWings;
}
public class Launch9
{
public static void main(String[] args)
{
Fan[] f= new Fan[3];
f[0]=new Fan();
f[1]=new Fan();
f[2]=new Fan();
f[0].brand="Hyder";
f[0].cost=10000;
}
}
Writable
Smart Insert
23 : 11 : 281

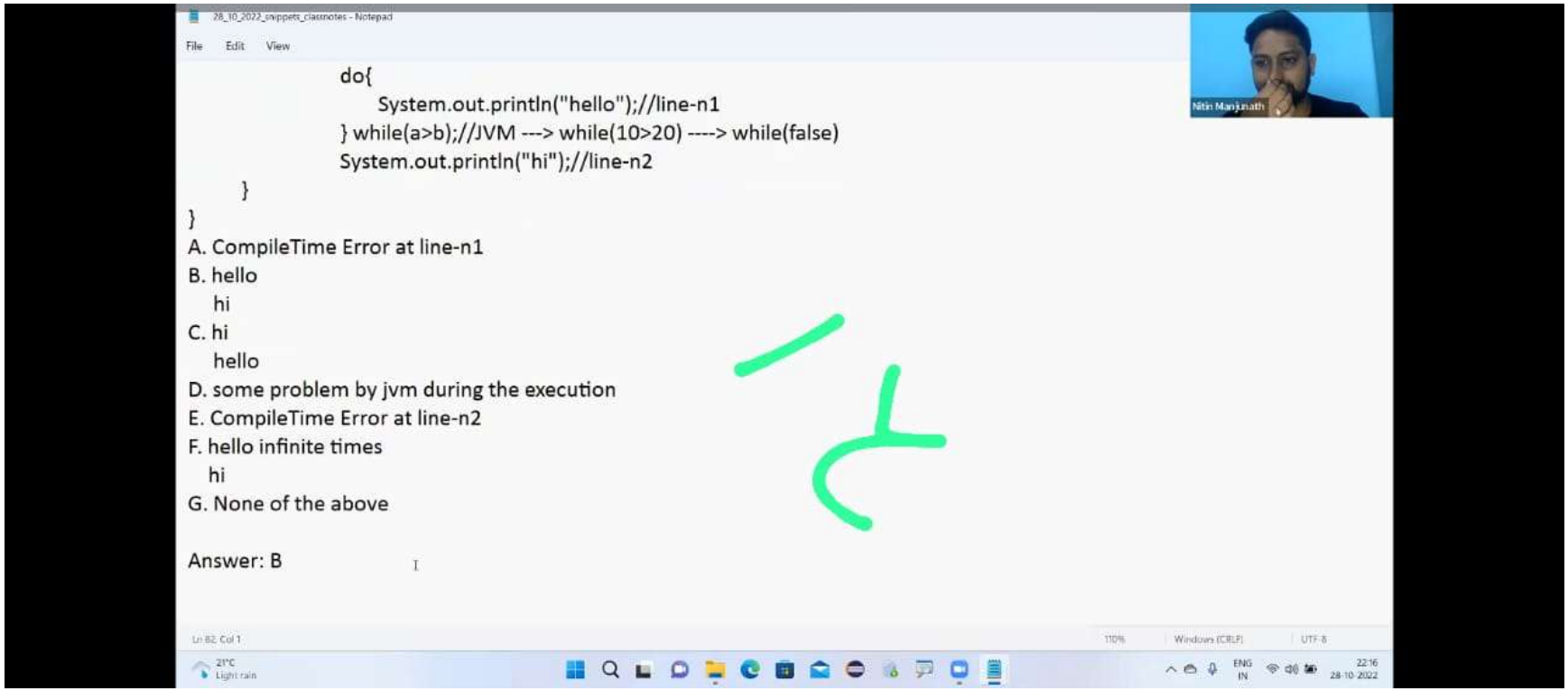

Package Explorer
Launch10.java
public class Launch10 {
public static void main(String[] args) {
// TODO Auto-generated method stub
int [] a1=new int[] {10,20};
int [] a= {10,20,30,40};
char [] c= {'i','N','B','I'};
int[][] ar= new int[][]{{10,20},{20,30}};
int[][] ar1= {{10,20,30},{20,30}};
int[][][] ar2= {{{10,20},{30,40}},{{50,60},{70,80}}};
}
}
Hyder Abbas
The value of the local variable a is not used
Writable
Smart Insert
10 : 33 [24]

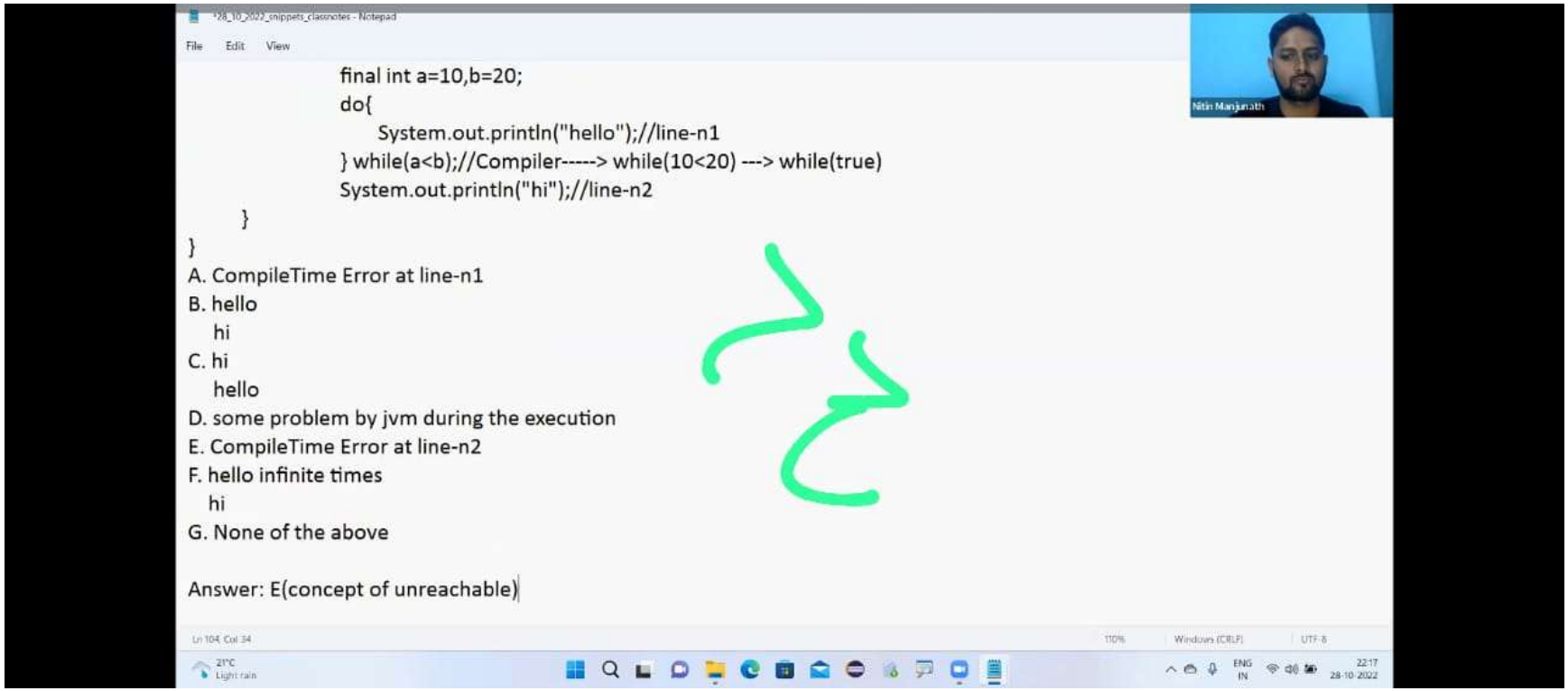

Package Explorer
Launch11.java
public class Launch11 {
public static void main(String[] args) {
// TODO Auto-generated method stub
int a[]= {10,20,30,40};
for(int elem:a)
{
System.out.println(elem);
}
}
}
for-each
Start - End
a -> 10 20 30 40
0 1 2 3
Hyder Abbas

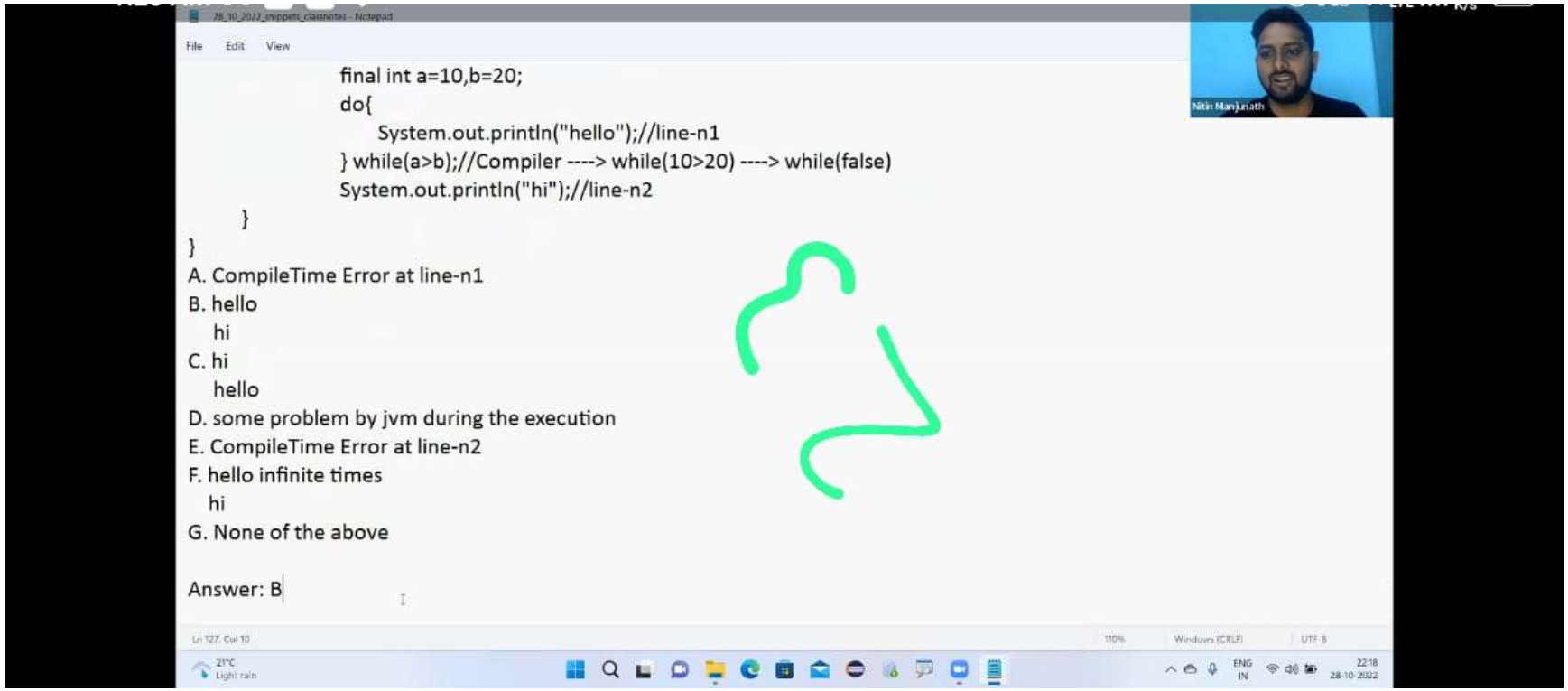

28_10_2022_snippets_classnotes - Notepad
File Edit View
Q>
public class ExampleDoWhile{
public static void main(String args[]){
do{
System.out.println("hello");//line-n1
}while(true);
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello infinite times
C. hi
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. None of the above
Answer: E
Nitin Manjunath

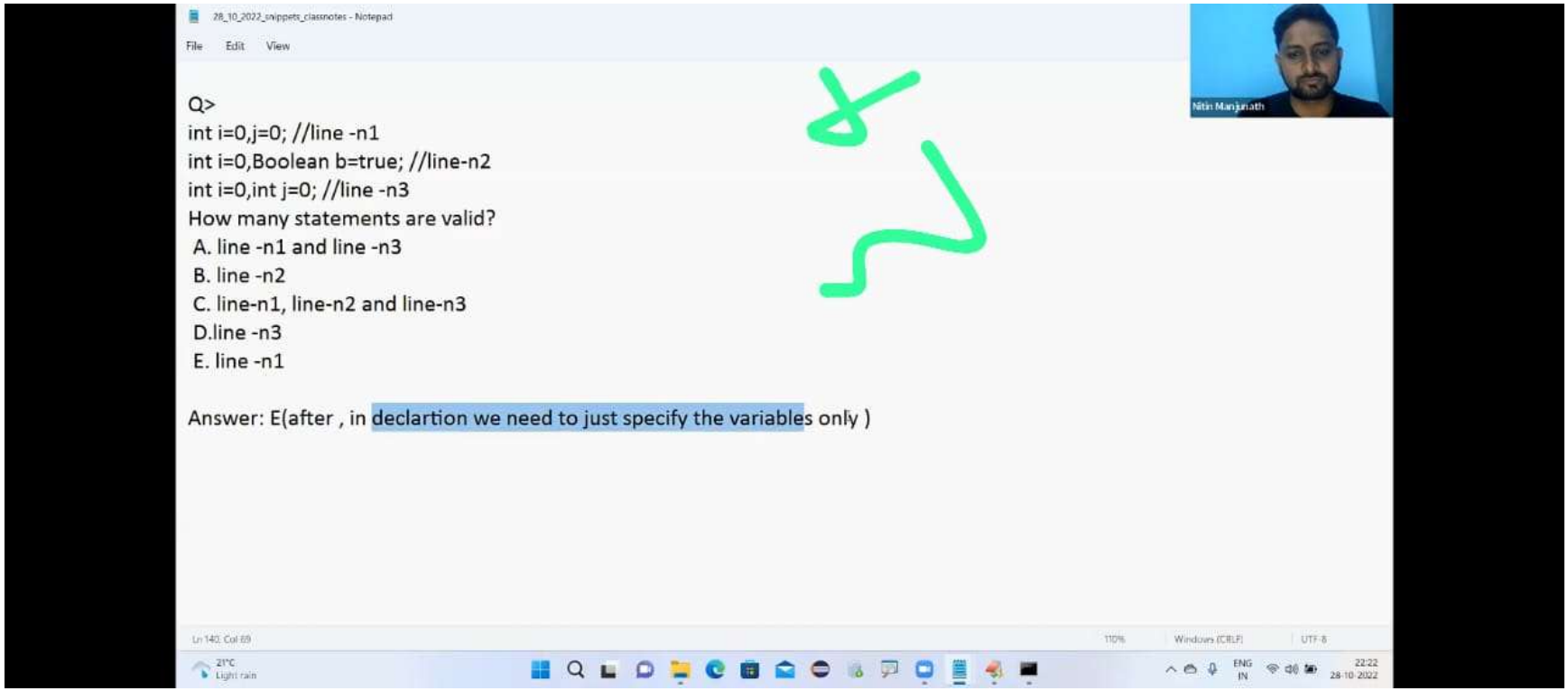

28_10_2022_snippets_classnotes - Notepad
File Edit View
do{
System.out.println("hello");//line-n1
}while(false);
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello
C. hi
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. hello
hi
G. None of the above
Answer: F
Nitin Manjunath
Ln 37, Col 10
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:13
28-10-2022

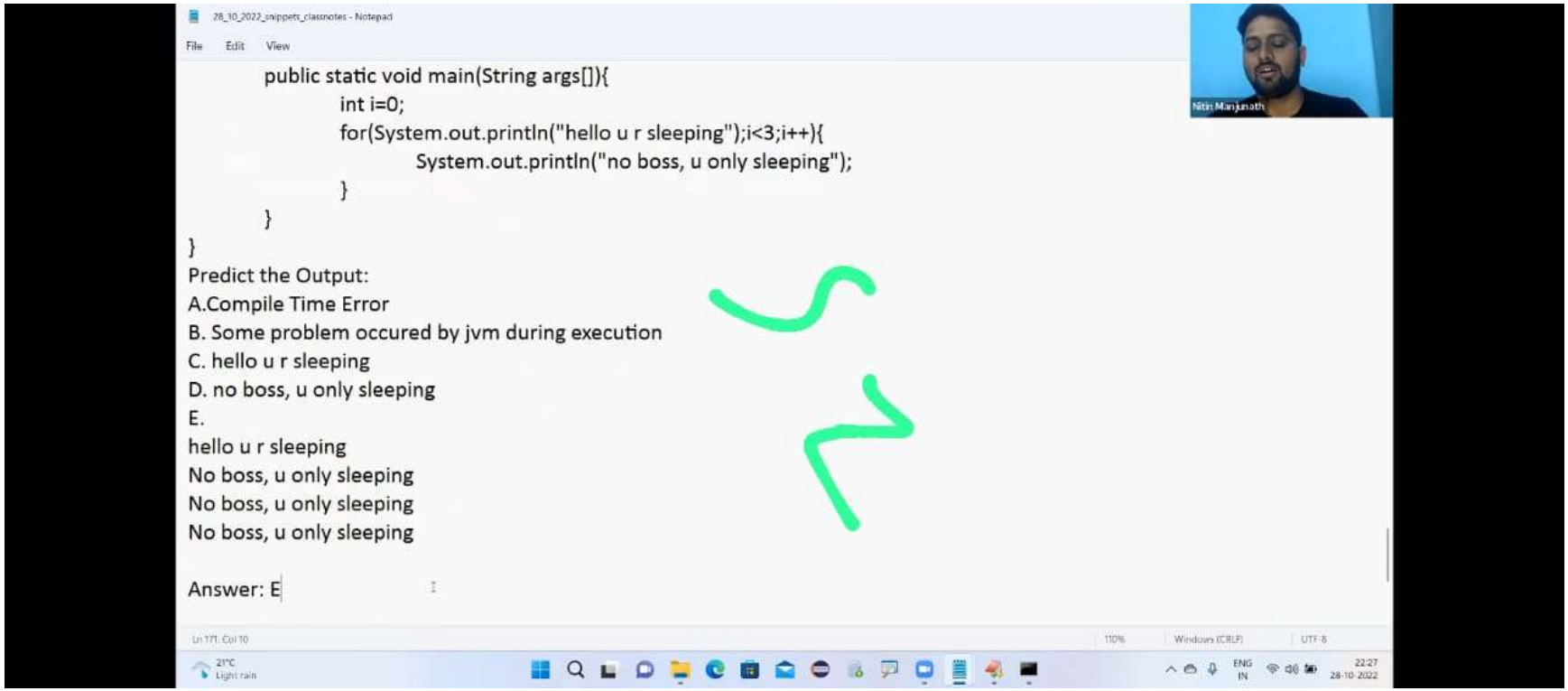

28_10_2022_snippets_classnotes - Notepad
File Edit View
public class ExampleDoWhile{
public static void main(String args[]){
int a=10,b=20;
do{
System.out.println("hello");//line-n1
} while(a<b);// JVM ----> while(10<20) ---> while(true)
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello
C. hi
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. hello infinite times
g. hi infinite times
h. None of the above
Answer: F
Nitin Manjunath

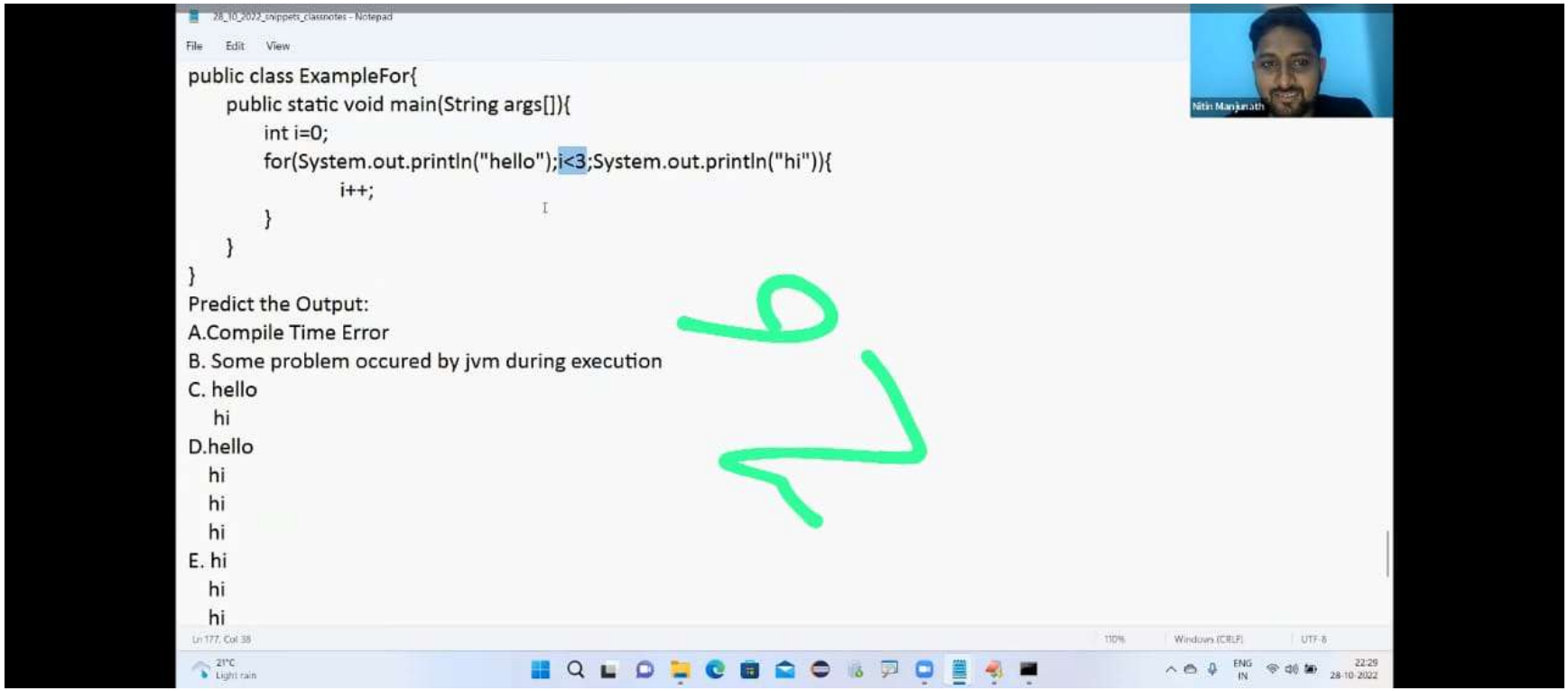

28_10_2022_snippets_classnotes - Notepad
File Edit View
do{
System.out.println("hello");//line-n1
} while(a>b);//JVM ---> while(10>20) ----> while(false)
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello
hi
C. hi
hello
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. hello infinite times
hi
G. None of the above
Answer: B
Nitin Manjunath

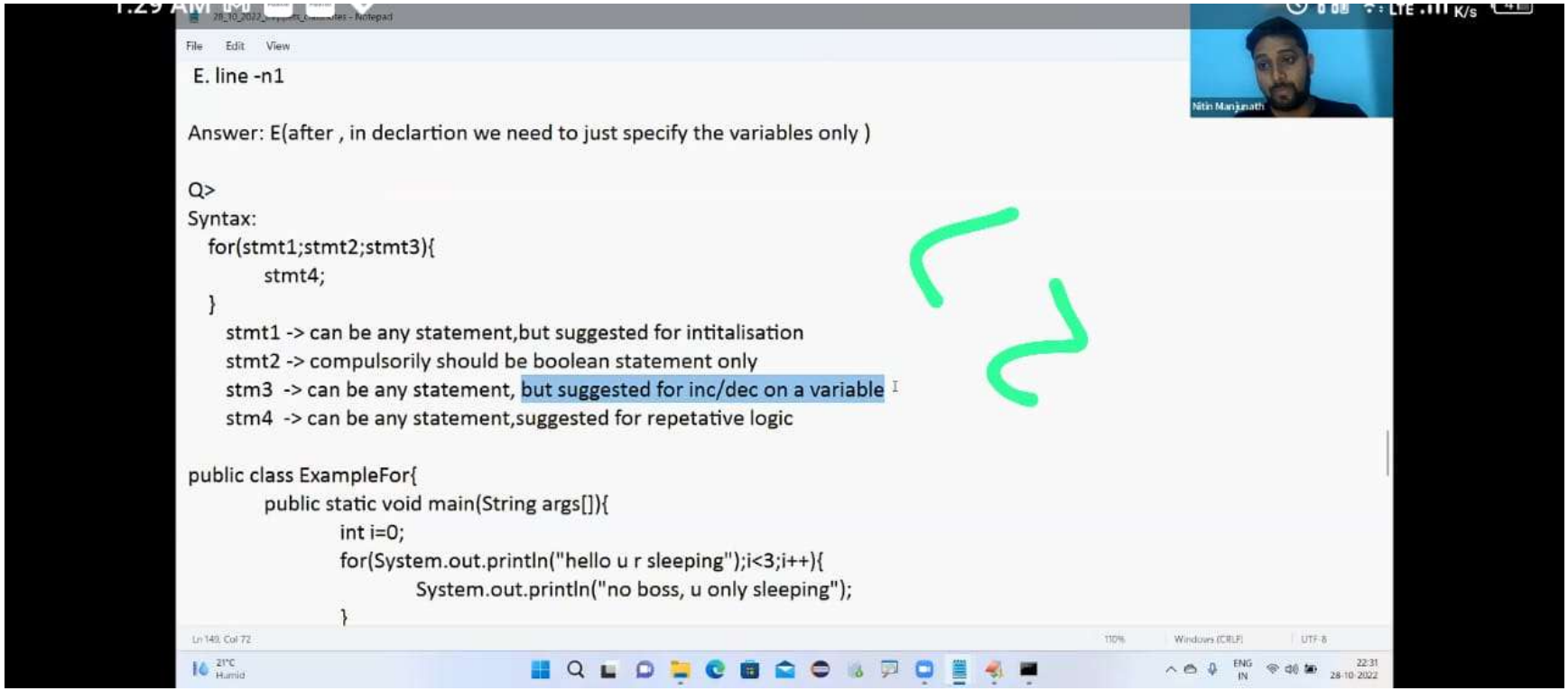

*28_10_2022_snippets_classnotes - Notepad
File Edit View
final int a=10,b=20;
do{
System.out.println("hello");//line-n1
} while(a<b);//Compiler-----> while(10<20) ---> while(true)
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello
hi
C. hi
hello
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. hello infinite times
hi
G. None of the above
Answer: E(concept of unreachable)
Nitin Manjunath
Ln 104, Col 34
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:17
28-10-2022


28_10_2022_snippets_classnotes - Notepad
File Edit View
final int a=10,b=20;
do{
System.out.println("hello");//line-n1
} while(a>b);//Compiler ----> while(10>20) ----> while(false)
System.out.println("hi");//line-n2
}
}
A. CompileTime Error at line-n1
B. hello
hi
C. hi
hello
D. some problem by jvm during the execution
E. CompileTime Error at line-n2
F. hello infinite times
hi
G. None of the above
Answer: B
Nitin Manjunath
Ln 127, Col 10
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:18
28-10-2022


28_10_2022_snippets_classnotes - Notepad
File Edit View
Q>
int i=0,j=0; //line -n1
int i=0,Boolean b=true; //line-n2
int i=0,int j=0; //line -n3
How many statements are valid?
A. line -n1 and line -n3
B. line -n2
C. line-n1, line-n2 and line-n3
D.line -n3
E. line -n1
Answer: E(after , in declartion we need to just specify the variables only)
Nitin Manjunath
Ln 140, Col 69
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:22
28-10-2022


28_10_2022_snippets_classnotes - Notepad
File Edit View
public static void main(String args[]){
int i=0;
for(System.out.println("hello u r sleeping");i<3;i++){
System.out.println("no boss, u only sleeping");
}
}
}
Predict the Output:
A.Compile Time Error
B. Some problem occured by jvm during execution
C. hello u r sleeping
D. no boss, u only sleeping
E.
hello u r sleeping
No boss, u only sleeping
No boss, u only sleeping
No boss, u only sleeping
Answer: E
Nitin Manjunath


28_10_2022_snippets_classnotes - Notepad
File Edit View
public class ExampleFor{
public static void main(String args[]){
int i=0;
for(System.out.println("hello");i<3;System.out.println("hi")){
i++;
}
}
}
Predict the Output:
A.Compile Time Error
B. Some problem occured by jvm during execution
C. hello
hi
D.hello
hi
hi
hi
E. hi
hi
hi
Nitin Manjunath
Ln 177, Col 38
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:29
28-10-2022


File Edit View
E. line -n1
Answer: E(after , in declartion we need to just specify the variables only)
Q>
Syntax:
for(stmt1;stmt2;stmt3){
stmt4;
}
stmt1 -> can be any statement,but suggested for intitalisation
stmt2 -> compulsorily should be boolean statement only
stm3 -> can be any statement, but suggested for inc/dec on a variable
stm4 -> can be any statement,suggested for repetative logic
public class ExampleFor{
public static void main(String args[]){
int i=0;
for(System.out.println("hello u r sleeping");i<3;i++){
System.out.println("no boss, u only sleeping");
}
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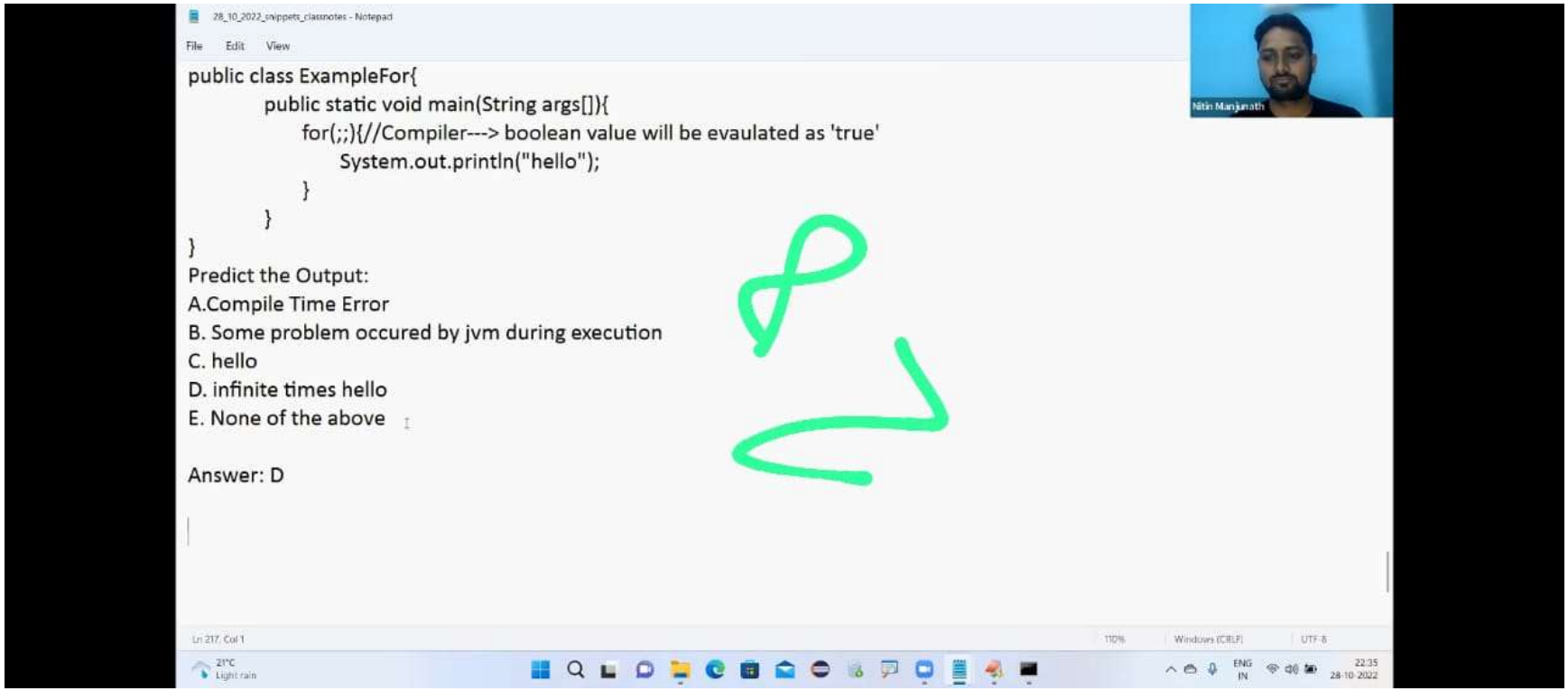
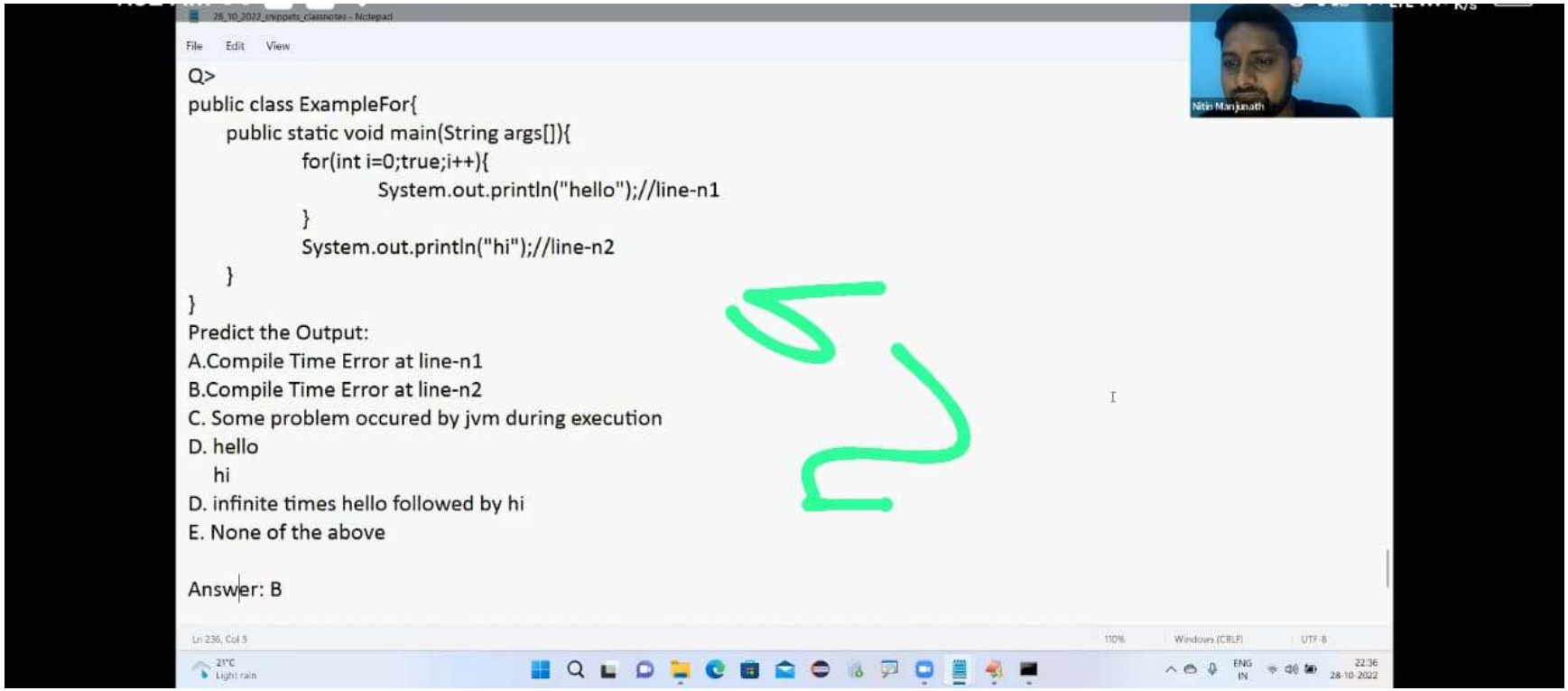
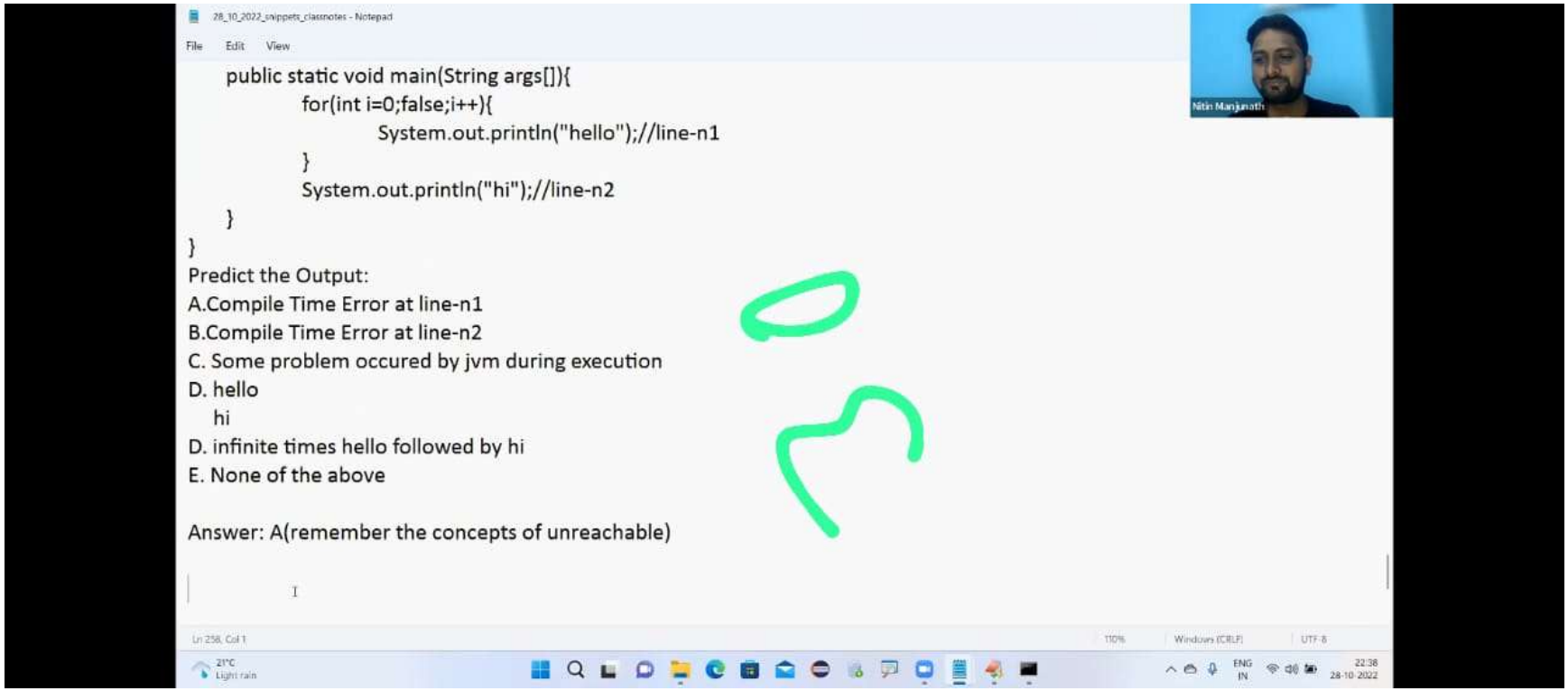
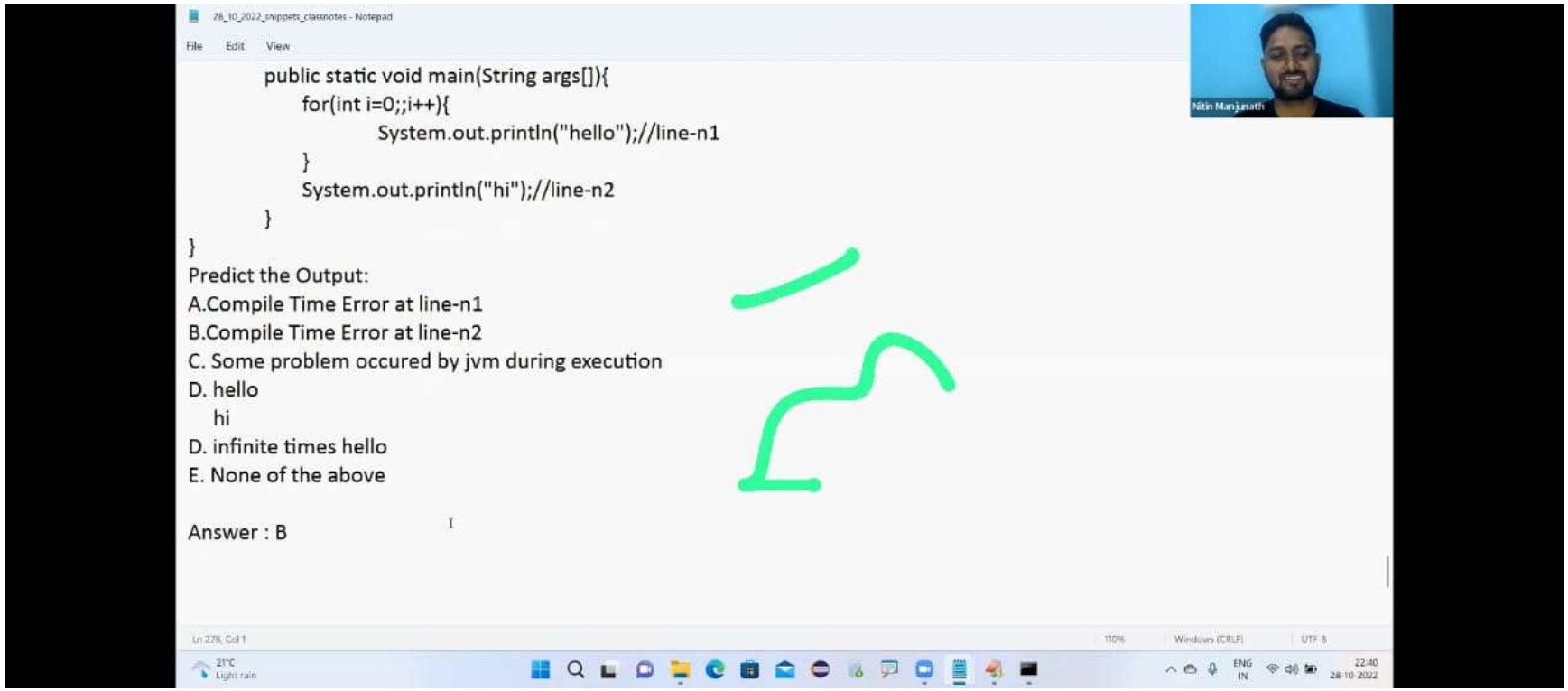
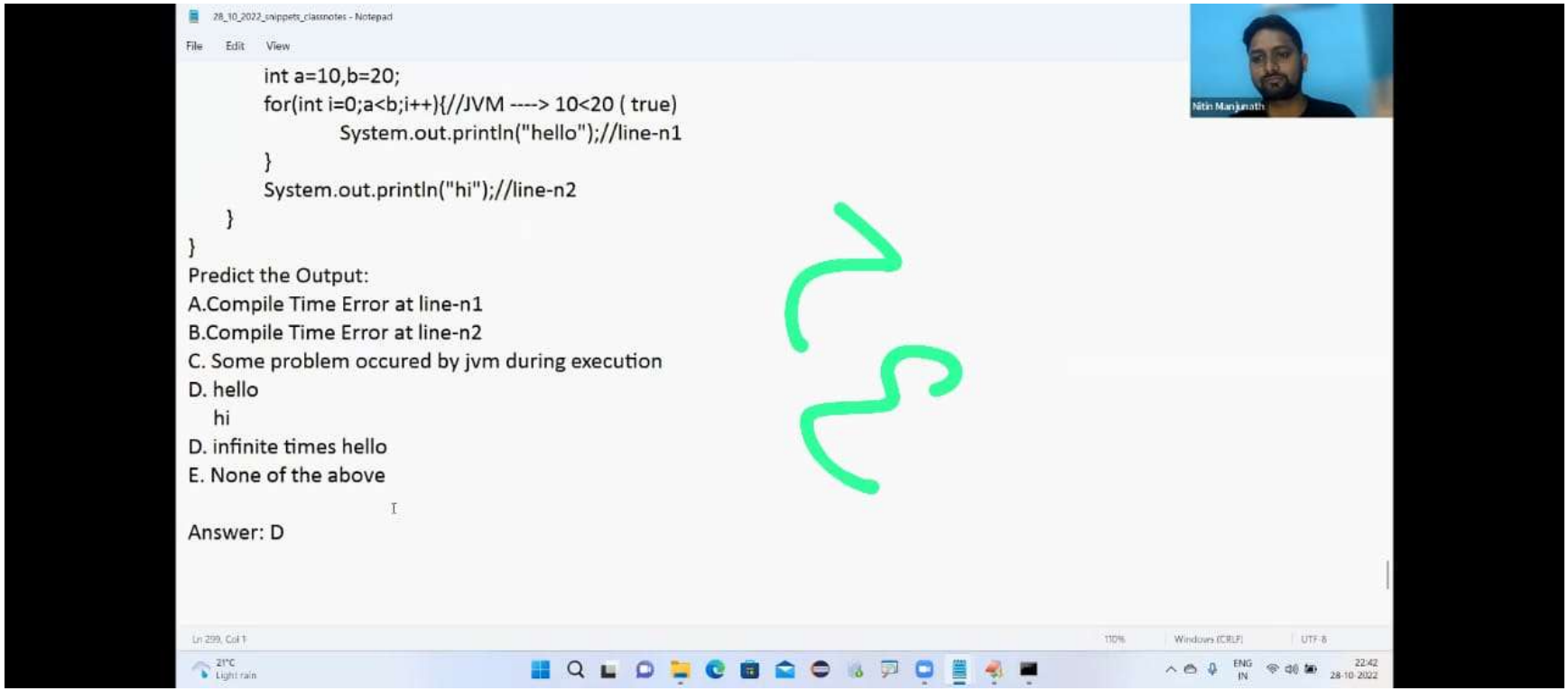
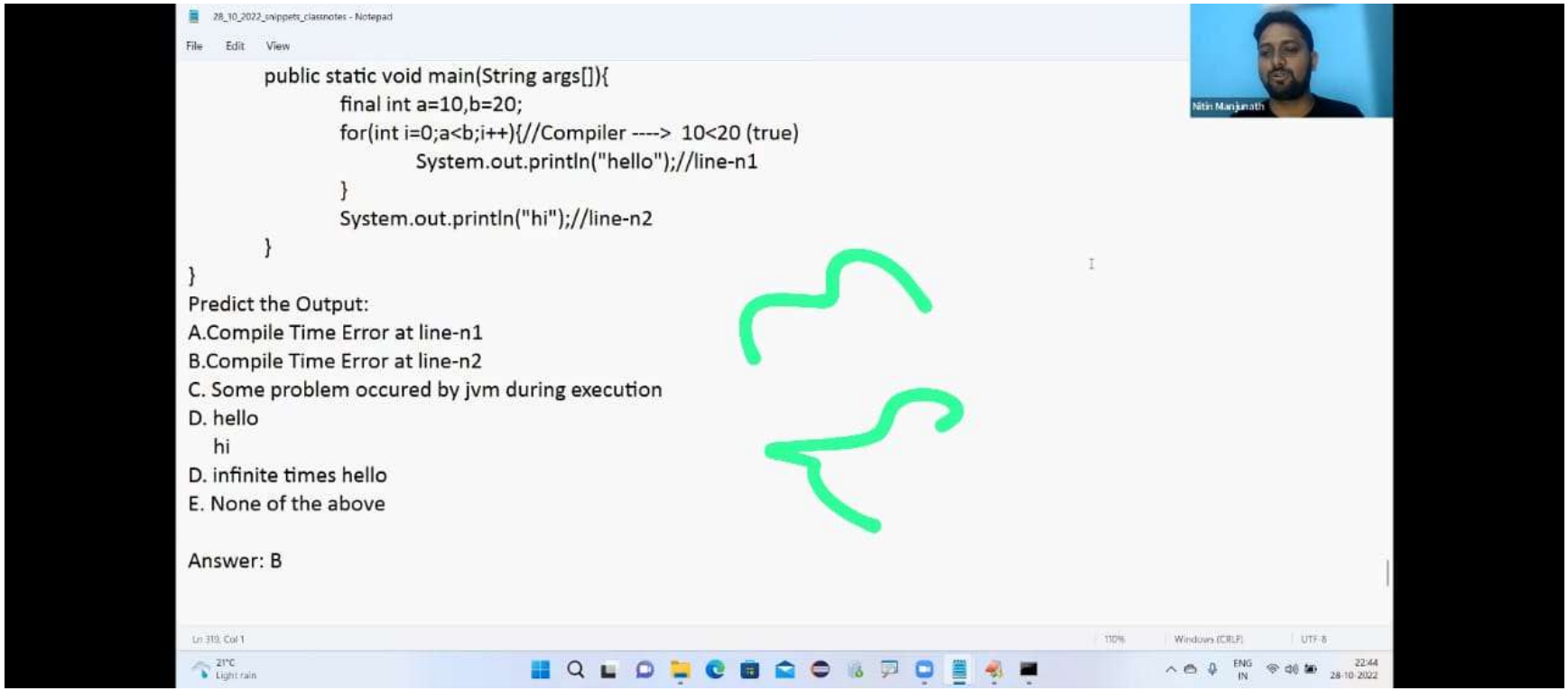

28_10_2022_snippets_classnotes - Notepad
File Edit View
public class ExampleFor{
public static void main(String args[]){
for(;;){//Compiler---> boolean value will be evaulated as 'true'
System.out.println("hello");
}
}
}
Predict the Output:
A.Compile Time Error
B. Some problem occured by jvm during execution
C. hello
D. infinite times hello
E. None of the above
Answer: D
Nitin Manjunath
Ln 217, Col 1
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:35
28-10-2022

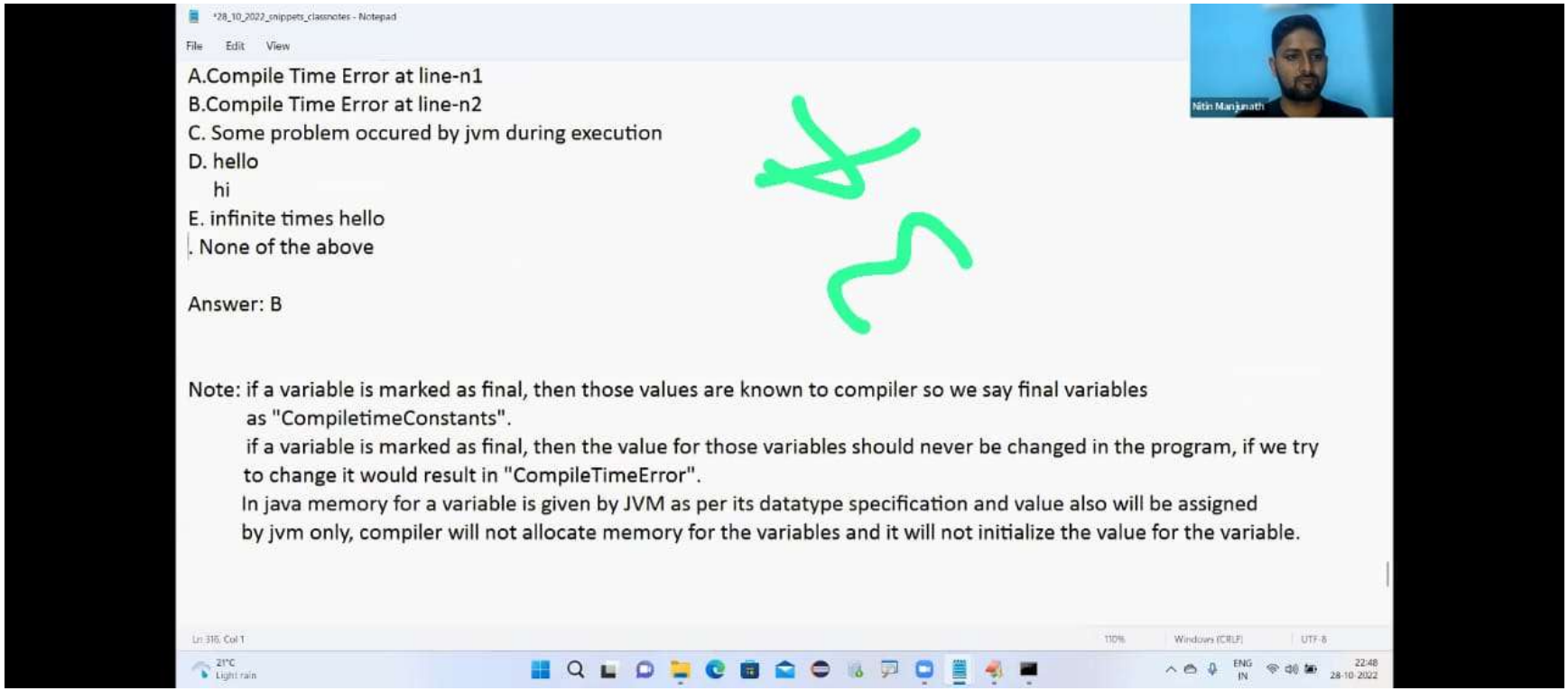

28_10_2022_snippets_classnotes - Notepad
File Edit View
Q>
public class ExampleFor{
public static void main(String args[]){
for(int i=0;true;i++){
System.out.println("hello");//line-n1
}
System.out.println("hi");//line-n2
}
}
Predict the Output:
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
D. infinite times hello followed by hi
E. None of the above
Answer: B
Nitin Manjunath
Ln 236, Col 5
110%
Windows (CRLF)
UTF-8
21°C
Light rain
ENG
IN
22:36
28-10-2022


28_10_2022_snippets_classnotes - Notepad
File Edit View
public static void main(String args[]){
for(int i=0;false;i++){
System.out.println("hello");//line-n1
}
System.out.println("hi");//line-n2
}
}
Predict the Output:
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
D. infinite times hello followed by hi
E. None of the above
Answer: A(remember the concepts of unreachable)
Nitin Manjunath


28_10_2022_snippets_classnotes - Notepad
File Edit View
public static void main(String args[]){
for(int i=0;;i++){
System.out.println("hello");//line-n1
}
System.out.println("hi");//line-n2
}
}
Predict the Output:
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
D. infinite times hello
E. None of the above
Answer : B
Nitin Manjunath


28_10_2022_snippets_classnotes - Notepad
File Edit View
int a=10,b=20;
for(int i=0;a<b;i++){//JVM ----> 10<20 (true)
System.out.println("hello");//line-n1
}
System.out.println("hi");//line-n2
}
}
Predict the Output:
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
D. infinite times hello
E. None of the above
Answer: D
Nitin Manjunath


28_10_2022_snippets_classnotes - Notepad
File Edit View
public static void main(String args[]){
final int a=10,b=20;
for(int i=0;a<b;i++){//Compiler ----> 10<20 (true)
System.out.println("hello");//line-n1
}
System.out.println("hi");//line-n2
}
}
Predict the Output:
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
D. infinite times hello
E. None of the above
Answer: B
Nitin Manjunath


*28_10_2022_snippets_classnotes - Notepad
File Edit View
A.Compile Time Error at line-n1
B.Compile Time Error at line-n2
C. Some problem occured by jvm during execution
D. hello
hi
E. infinite times hello
. None of the above
Answer: B
Note: if a variable is marked as final, then those values are known to compiler so we say final variables as "CompiletimeConstants".
if a variable is marked as final, then the value for those variables should never be changed in the program, if we try to change it would result in "CompileTimeError".
In java memory for a variable is given by JVM as per its datatype specification and value also will be assigned by jvm only, compiler will not allocate memory for the variables and it will not initialize the value for the variable.
Nitin Manjunath

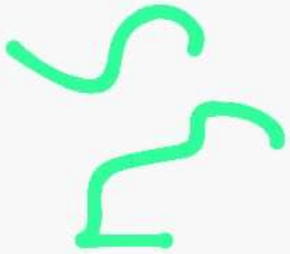
28_10_2022_snippets_classnotes - Notepad

File Edit View

Note: if a variable is marked as final, then those values are known to compiler so we say final variables as "CompiletimeConstants".
if a variable is marked as final, then the value for those variables should never be changed in the program, if we try to change it would result in "CompileTimeError".
In java memory for a variable is given by JVM as per its datatype specification and value also will be assigned by jvm only, compiler will not allocate memory for the variables and it will not initialize the value for the variable.

```
eg: int a =10;
    a++;
    System.out.println(a);//11


eg: final int a =10;
    a++;//a  = a +1;//CE: value can't be re-assigned
    System.out.println(a);
```



Ln 334, Col 35 110% Windows (CRLF) UTF-8

21°C Light rain ENG IN 22:49 28-10-2022