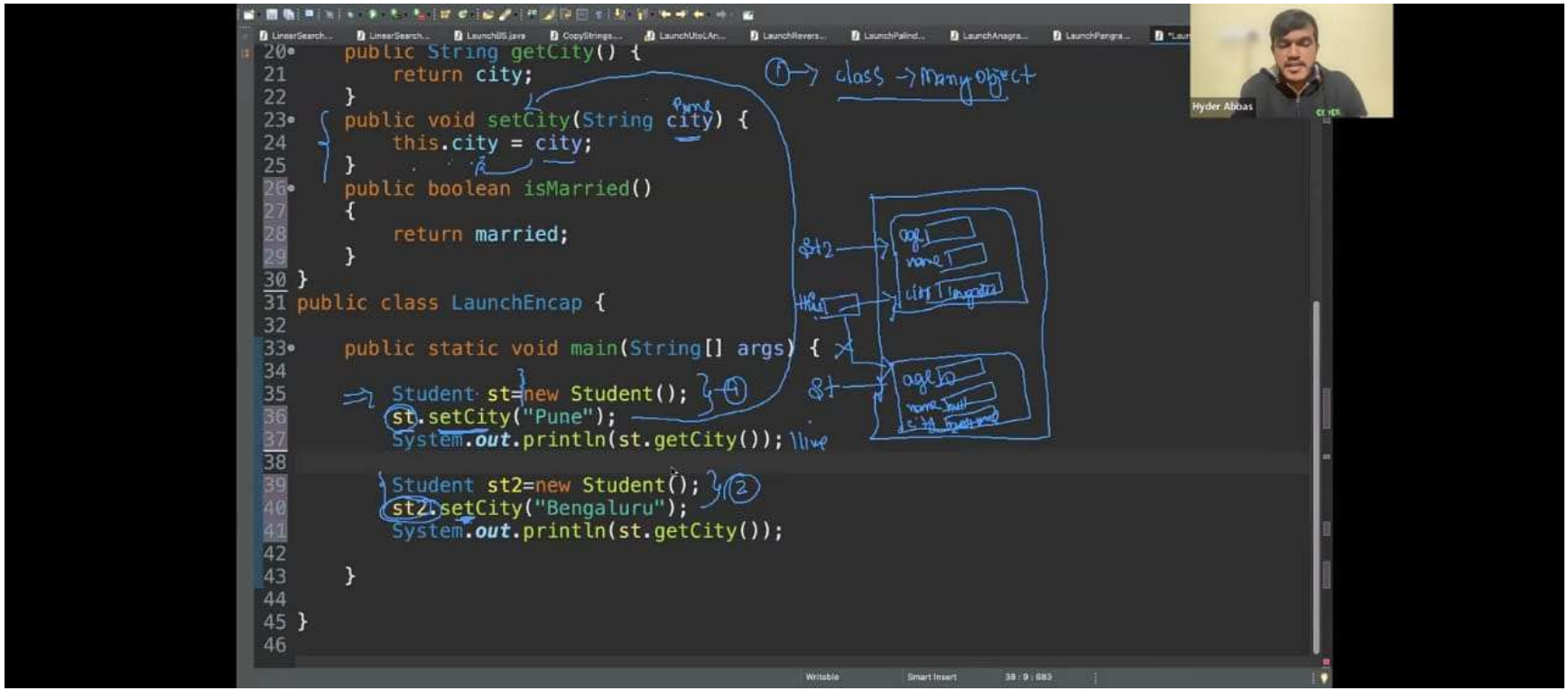
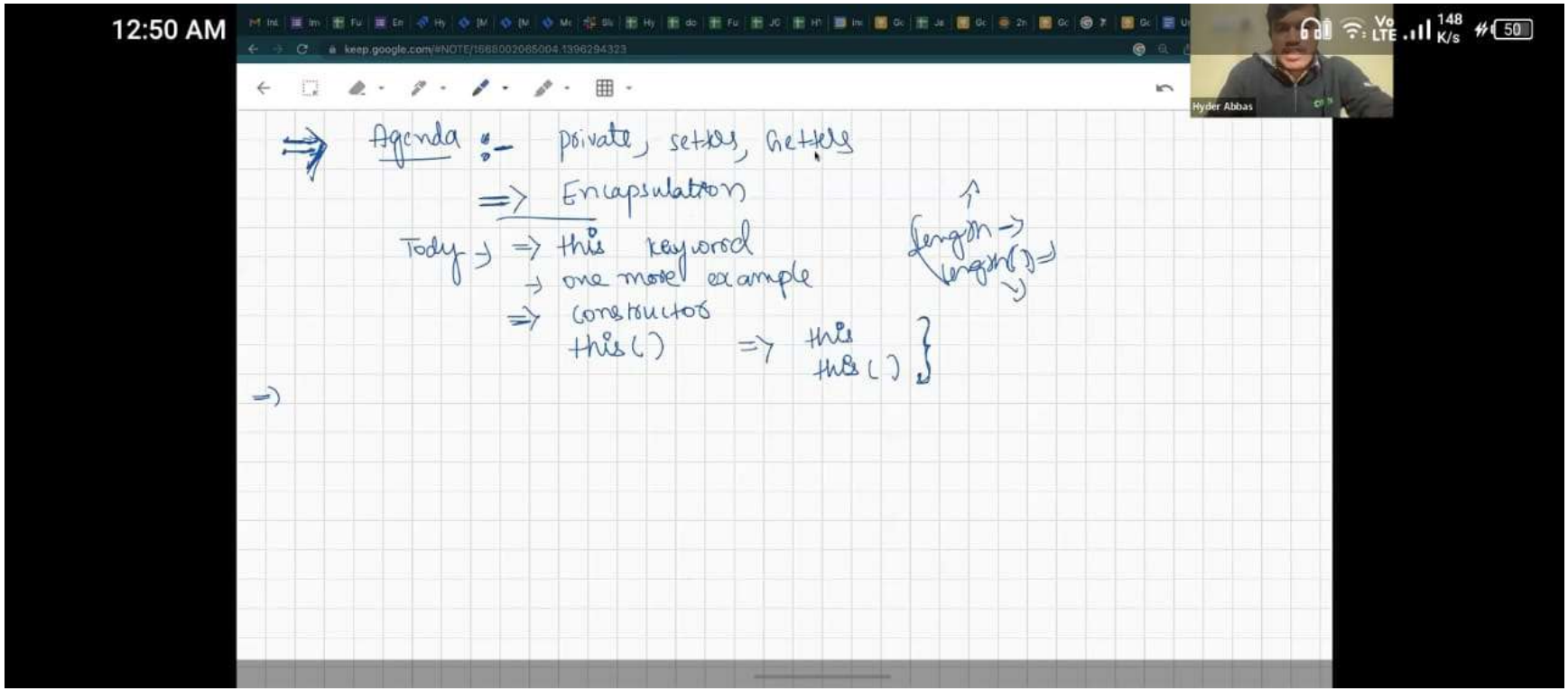
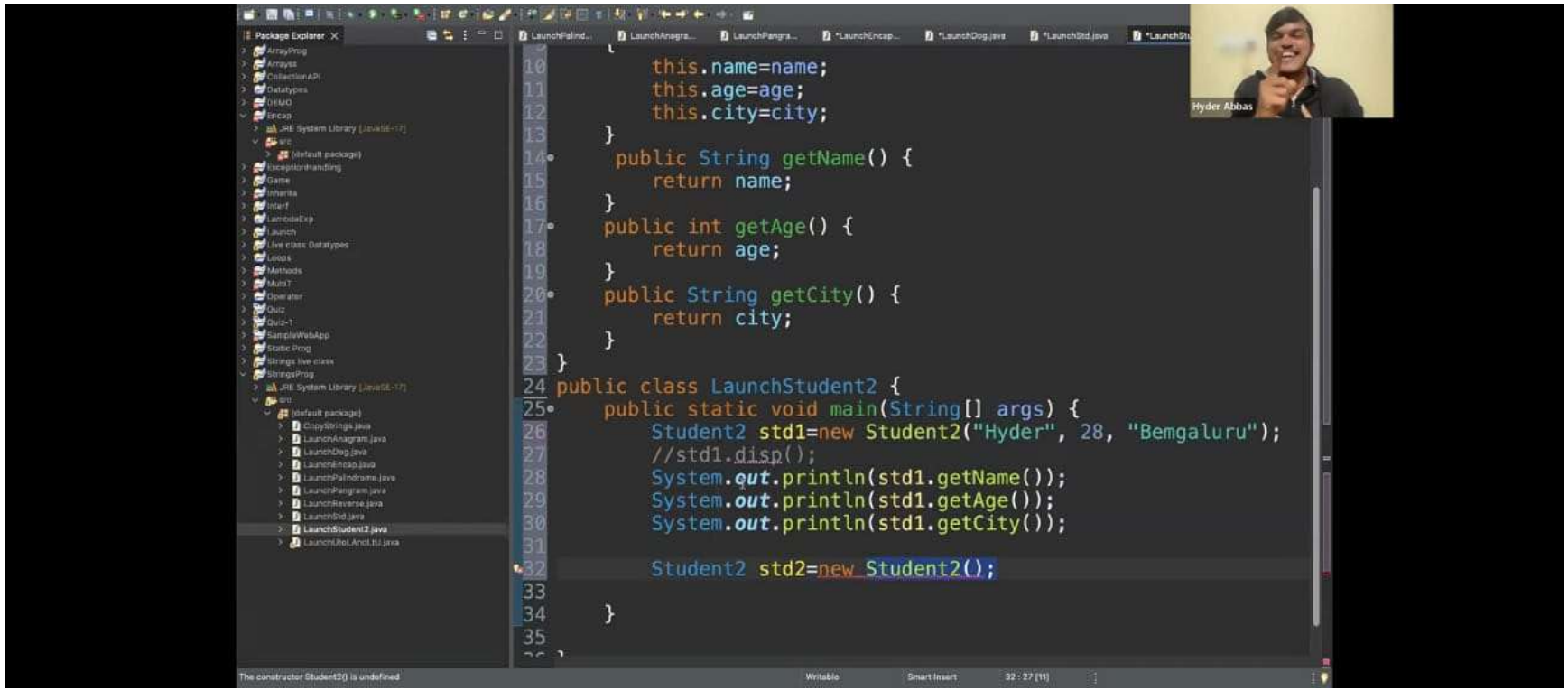
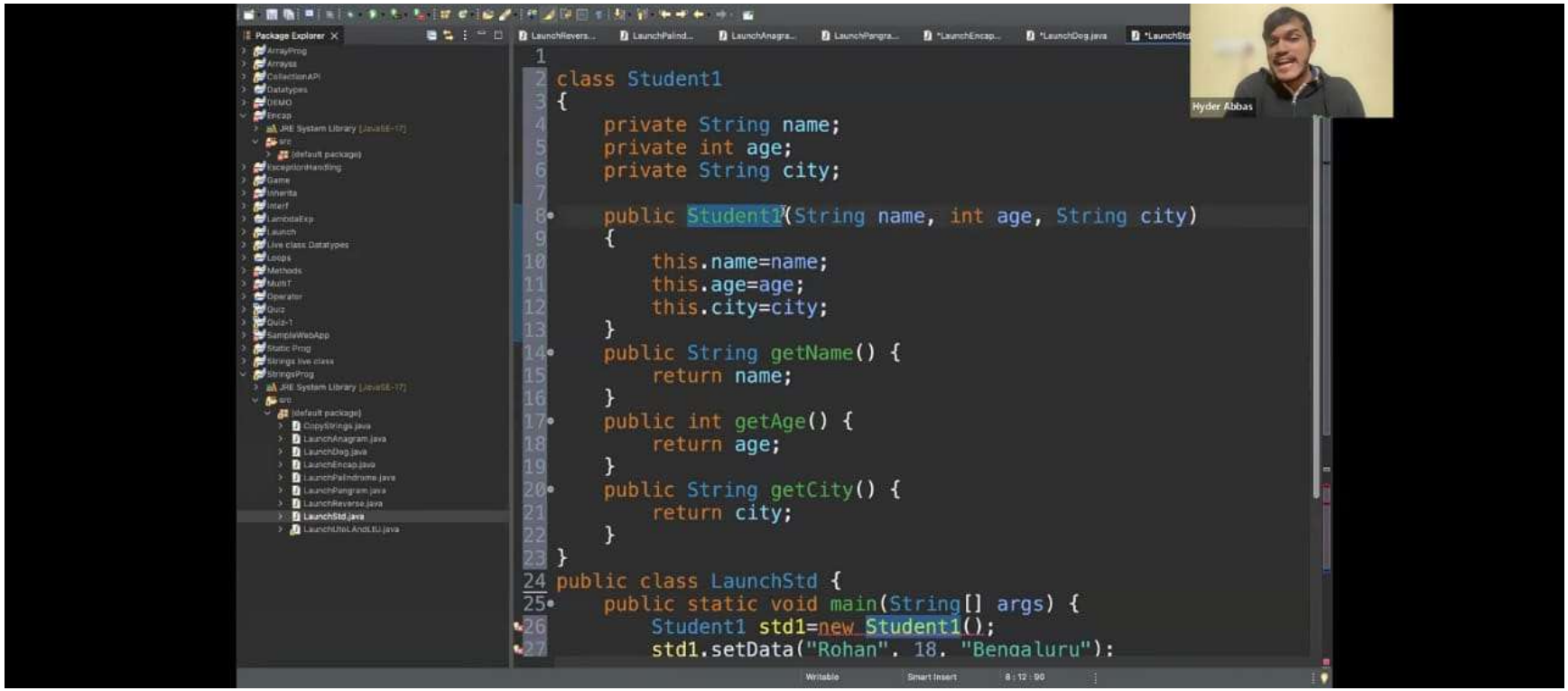
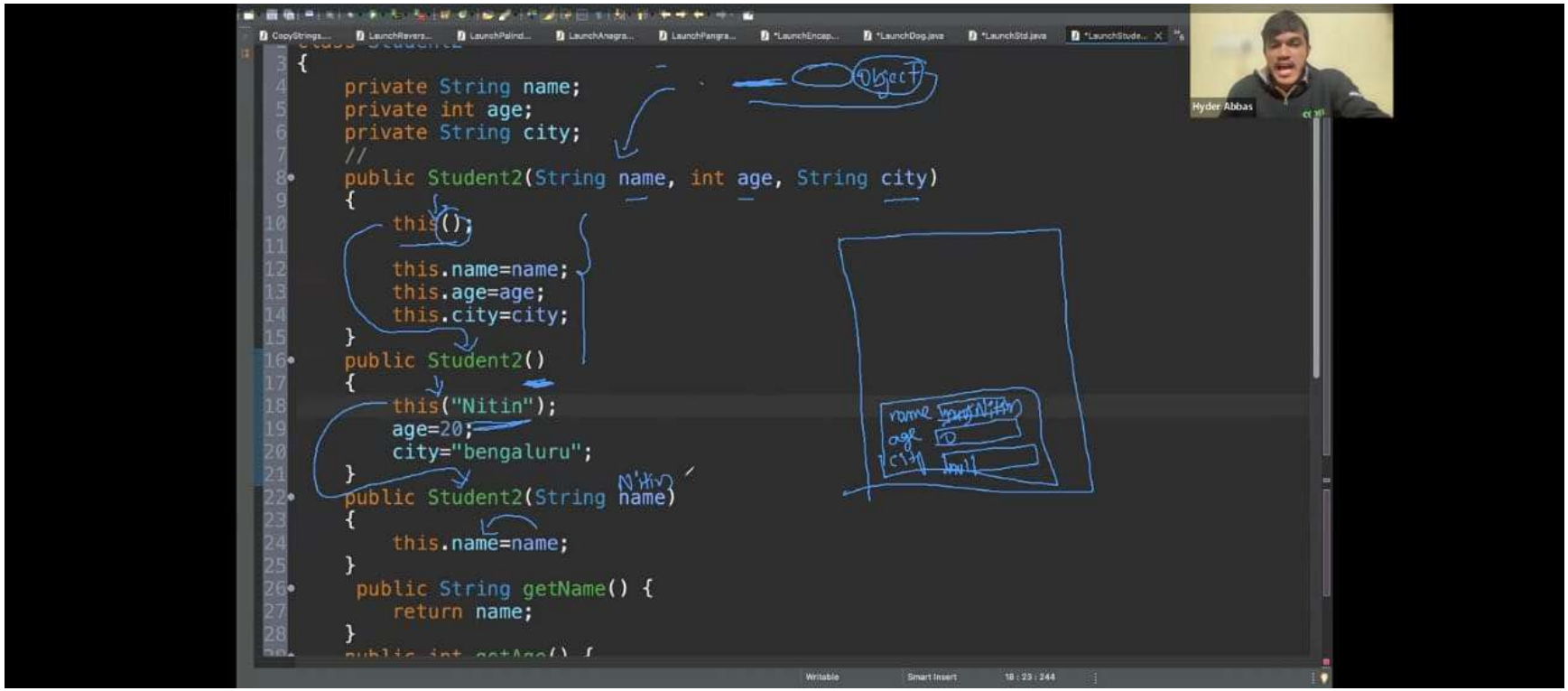
Constructor , this , this() , super , super()

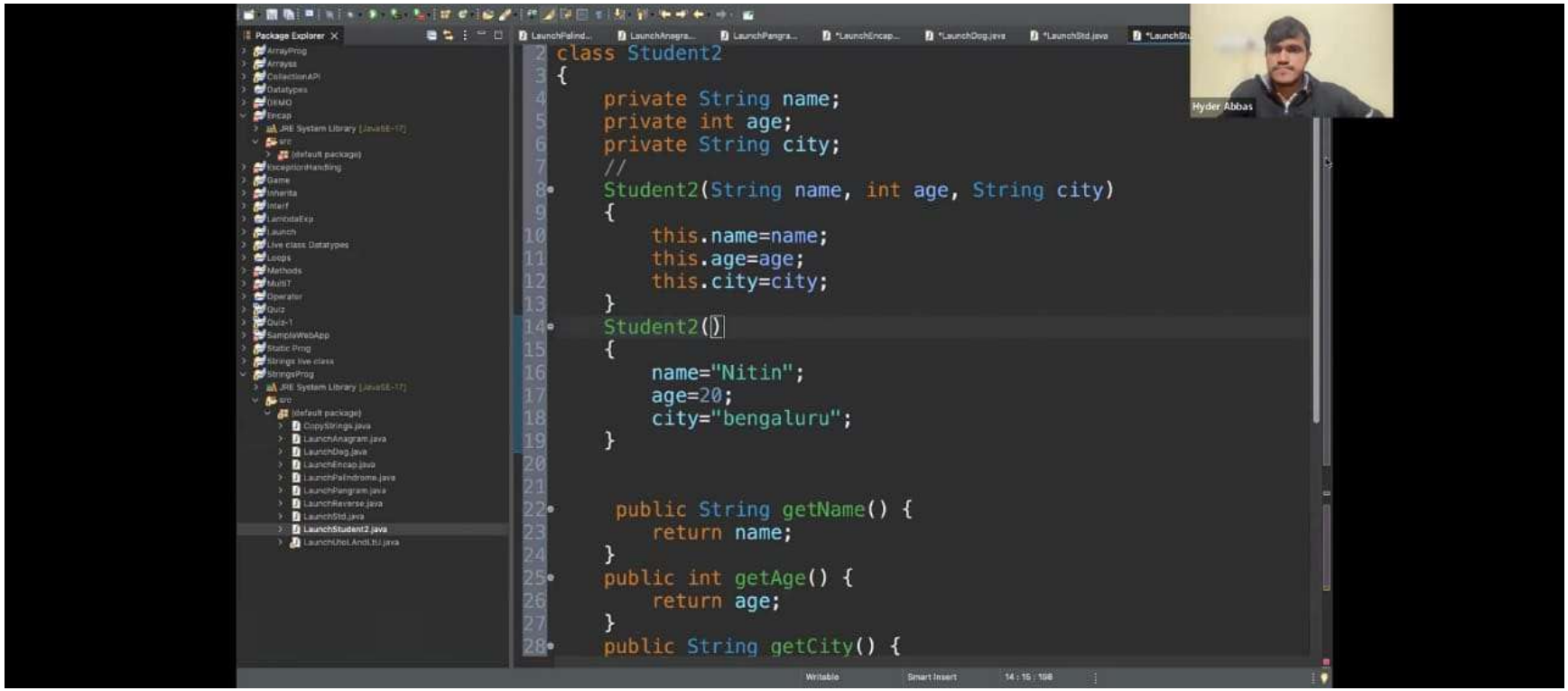

Hyder Abbas
public String getCity() {
return city;
}
public void setCity(String city) {
this.city = city;
}
public boolean isMarried()
{
return married;
}
}
public class LaunchEncap {
public static void main(String[] args) {
Student st=new Student();
st.setCity("Pune");
System.out.println(st.getCity());
Student st2=new Student();
st2.setCity("Bengaluru");
System.out.println(st.getCity());
}
}
class → Many object
Writable
Smart Insert
38 : 9 : 683

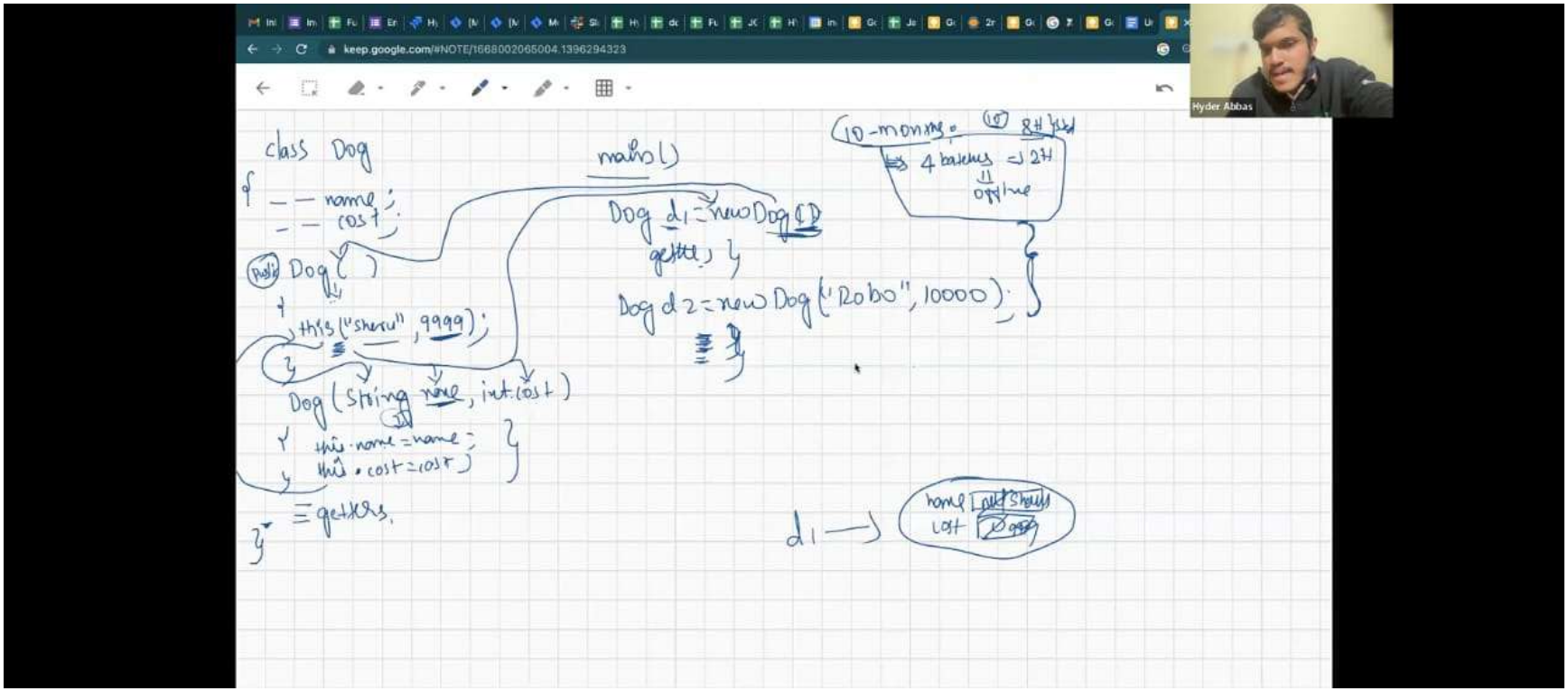

12:50 AM
keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
Agenda :- private, setters, getters
=> Encapsulation
Today :-
=> this keyword
-> one more example
=> constructor
this()
=> this
this()
length ->
length()

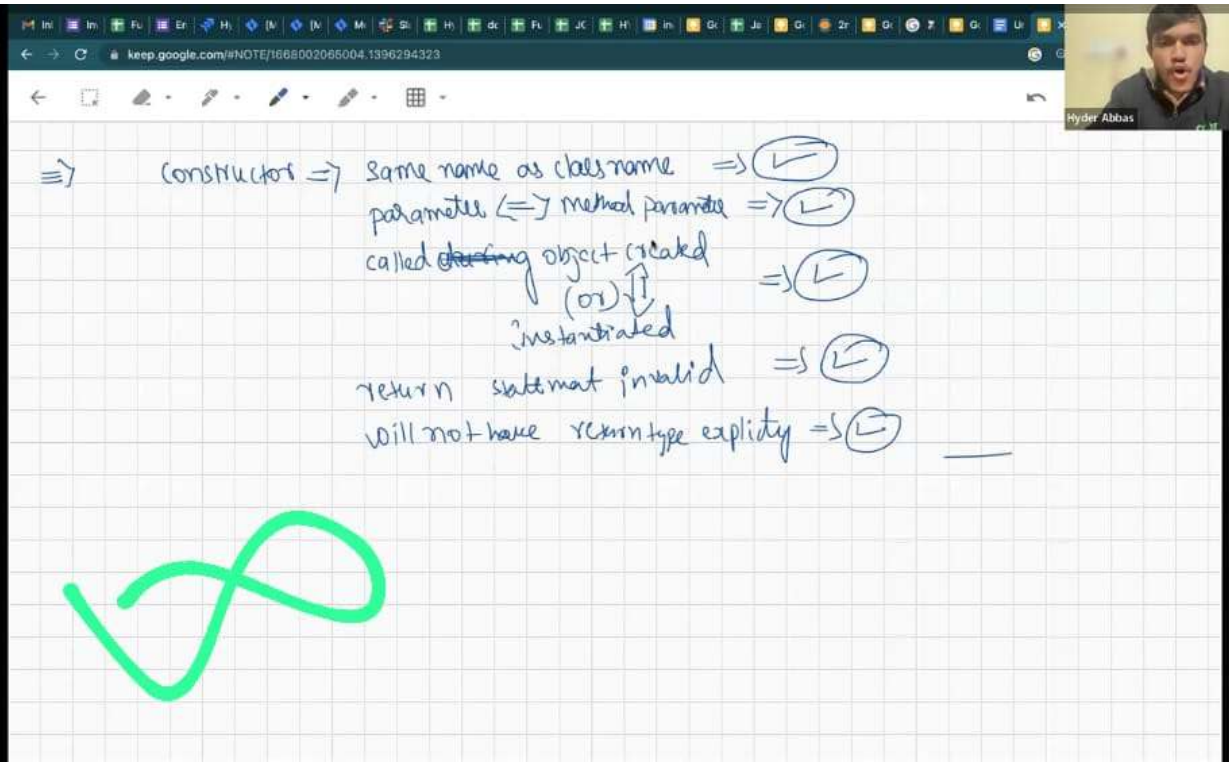

Package Explorer
LaunchPalind...
LaunchAnagra...
LaunchPangra...
*LaunchEncap...
*LaunchDog.java
*LaunchStd.java
Hyder Abbas
this.name=name;
this.age=age;
this.city=city;
public String getName() {
return name;
public int getAge() {
return age;
public String getCity() {
return city;
public class LaunchStudent2 {
public static void main(String[] args) {
Student2 std1=new Student2("Hyder", 28, "Bemgaluru");
//std1.disp();
System.out.println(std1.getName());
System.out.println(std1.getAge());
System.out.println(std1.getCity());
Student2 std2=new Student2();
The constructor Student2() is undefined
Writable
Smart Insert
32 : 27 [11]

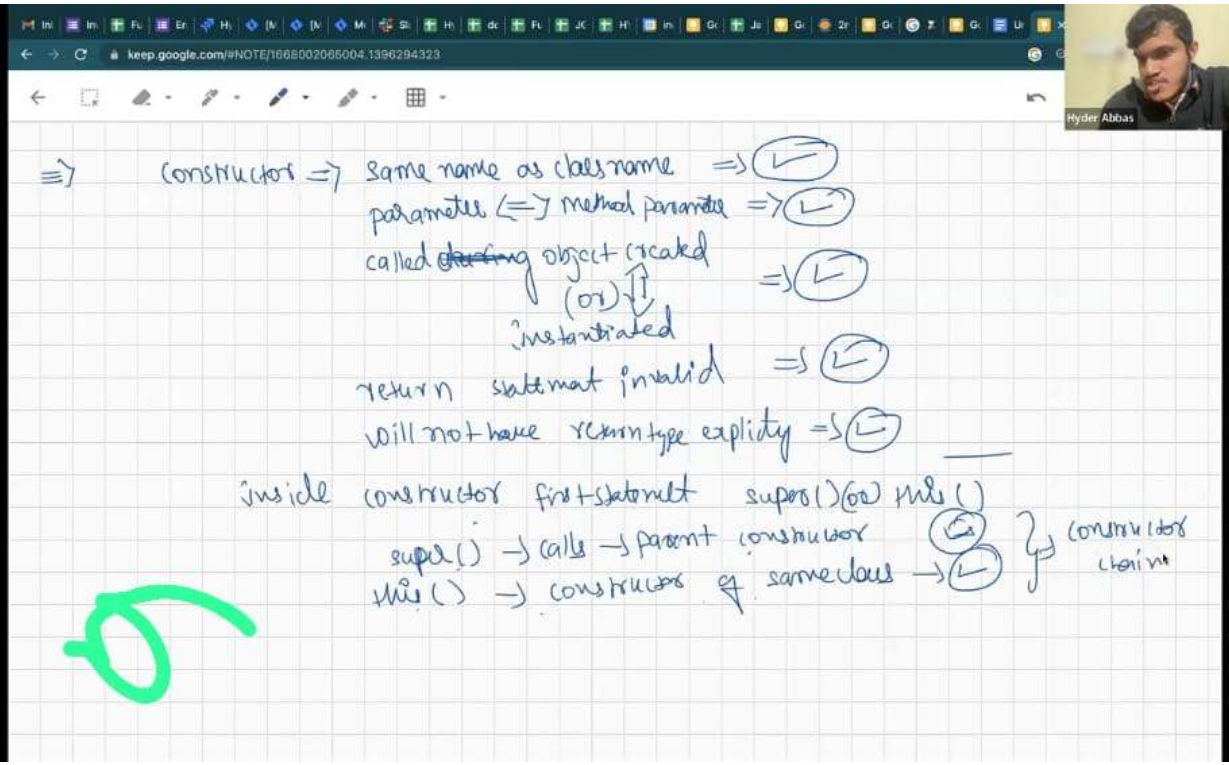

Package Explorer
LaunchRevers...
LaunchPalind...
LaunchAnagra...
LaunchPangra...
*LaunchEncap...
*LaunchDog.java
*LaunchStd
Hyder Abbas
class Student1
{
private String name;
private int age;
private String city;
public Student1(String name, int age, String city)
{
this.name=name;
this.age=age;
this.city=city;
}
public String getName() {
return name;
}
public int getAge() {
return age;
}
public String getCity() {
return city;
}
}
public class LaunchStd {
public static void main(String[] args) {
Student1 std1=new Student1();
std1.setData("Rohan", 18, "Bengaluru");
Writable
Smart Insert
8 : 12 : 90

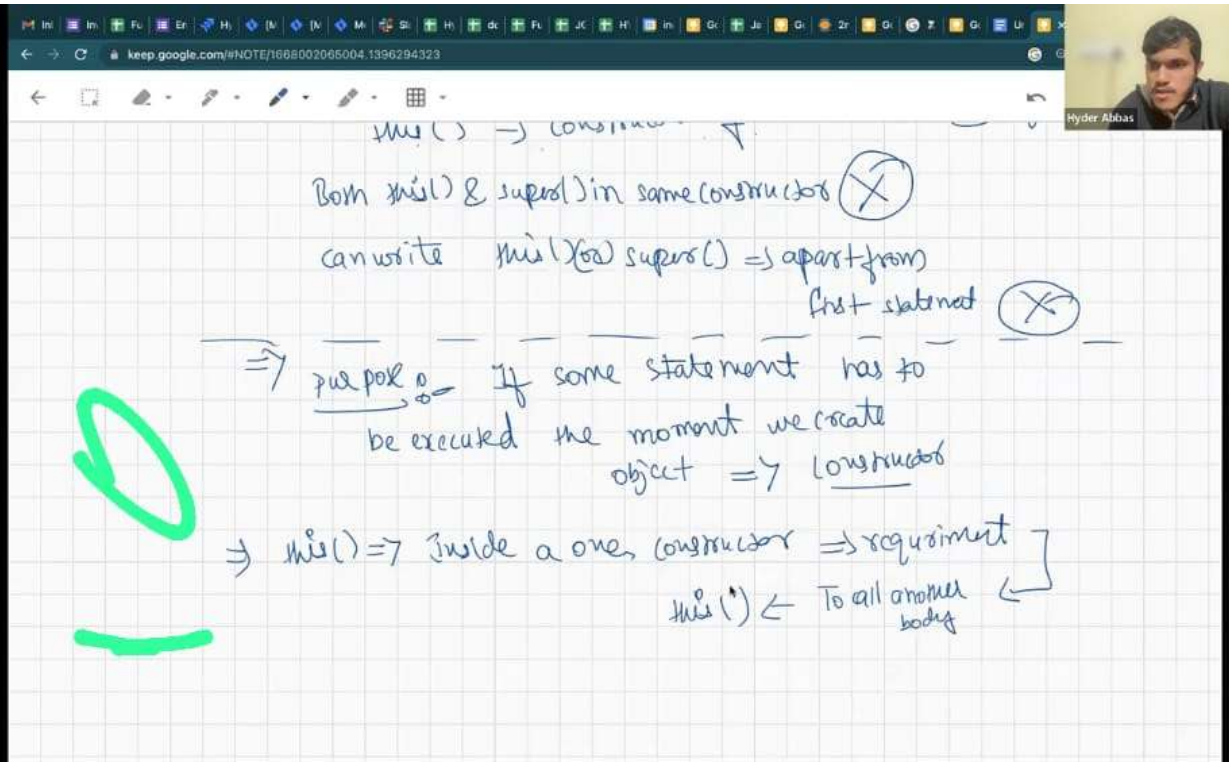

Hyder Abbas
Writable
Smart Insert
18 : 23 : 244


Package Explorer
class Student2
{
private String name;
private int age;
private String city;
//
Student2(String name, int age, String city)
{
this.name=name;
this.age=age;
this.city=city;
}
Student2()
{
name="Nitin";
age=20;
city="bengaluru";
}
public String getName() {
return name;
}
public int getAge() {
return age;
}
public String getCity() {
Hyder Abbas
Writable
Smart Insert
14 : 15 : 198

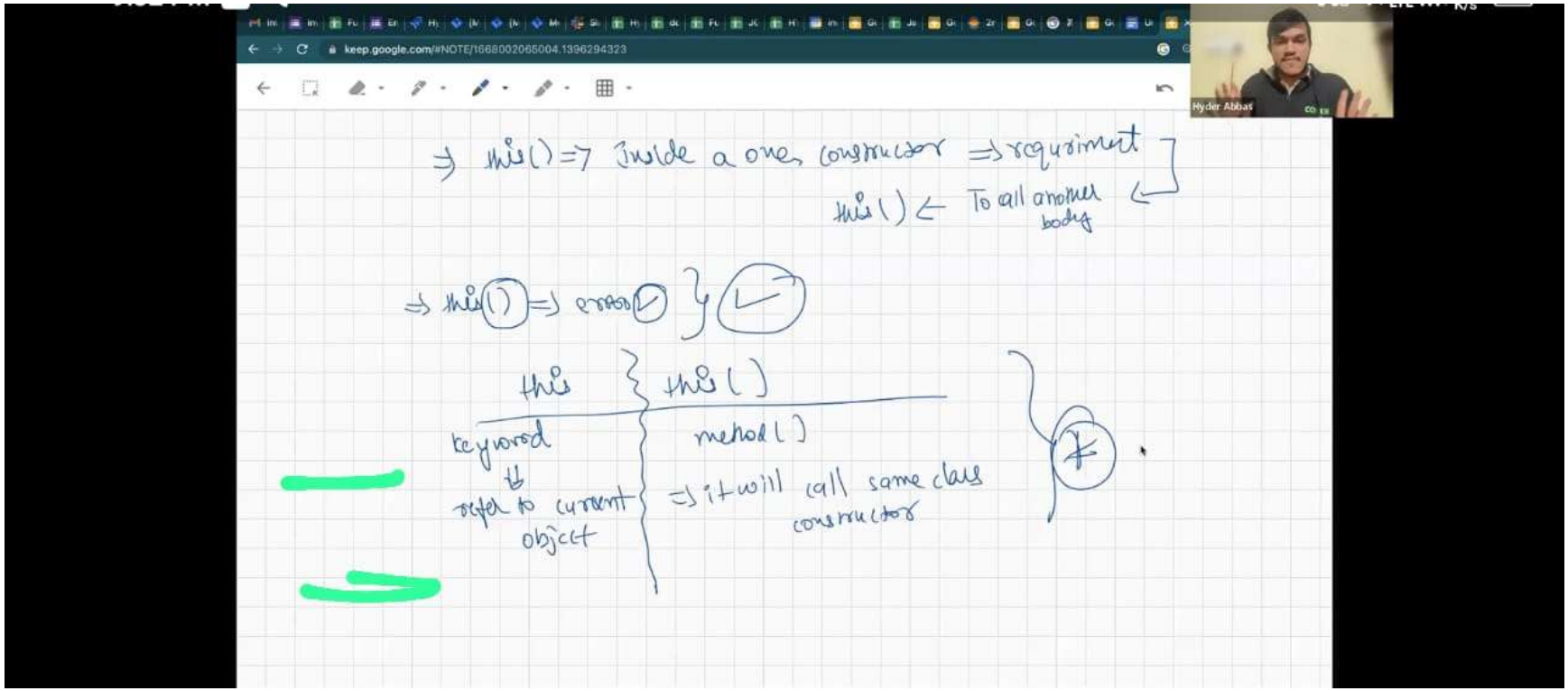

keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
class Dog
name;
cost;
Dog()
this("sheru", 9999);
Dog(String name, int cost)
this.name = name;
this.cost = cost;
getters.
main()
Dog d1 = new Dog();
Dog d2 = new Dog("Robo", 10000);
10-morning
4 batches = 27
offline
d1
name
cost

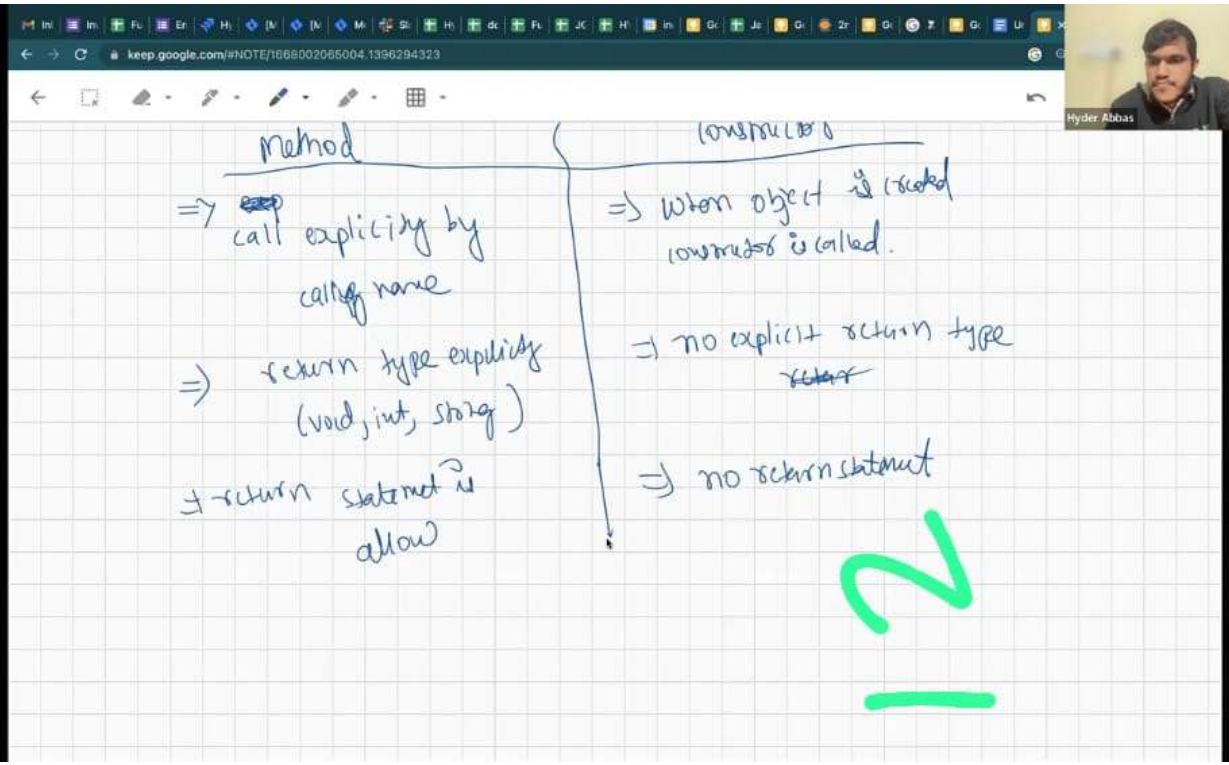

keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
constructor
same name as class name
parameters
method parameter
called
object created
(or)
instantiated
return statement invalid
will not have return type explicitly

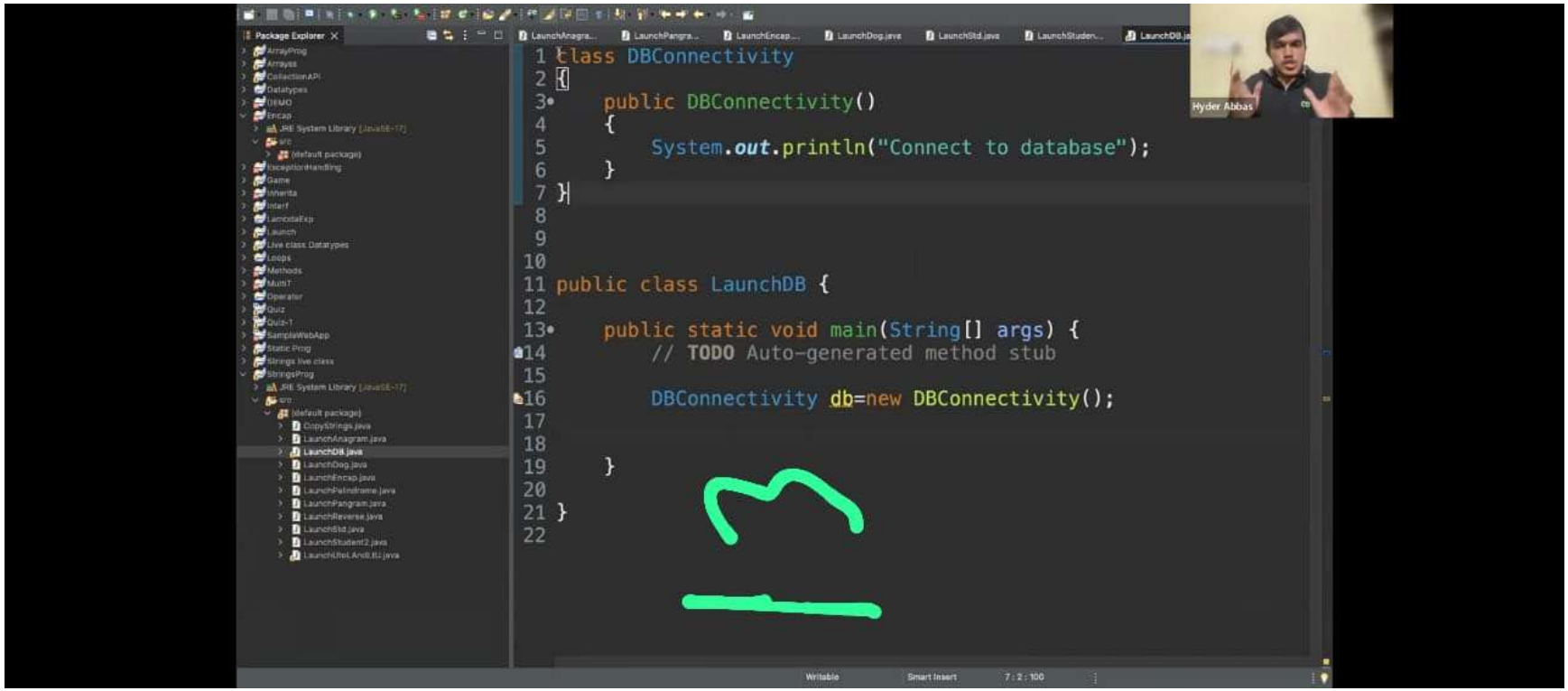

keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
constructor => same name as class name =>
parameters <=> method parameter =>
called during object created
(or)
instantiated
return statement invalid =>
will not have return type explicitly =>
inside constructor first statement super() (or) this()
super() -> calls -> parent constructor
this() -> constructor of same class
constructor chaining

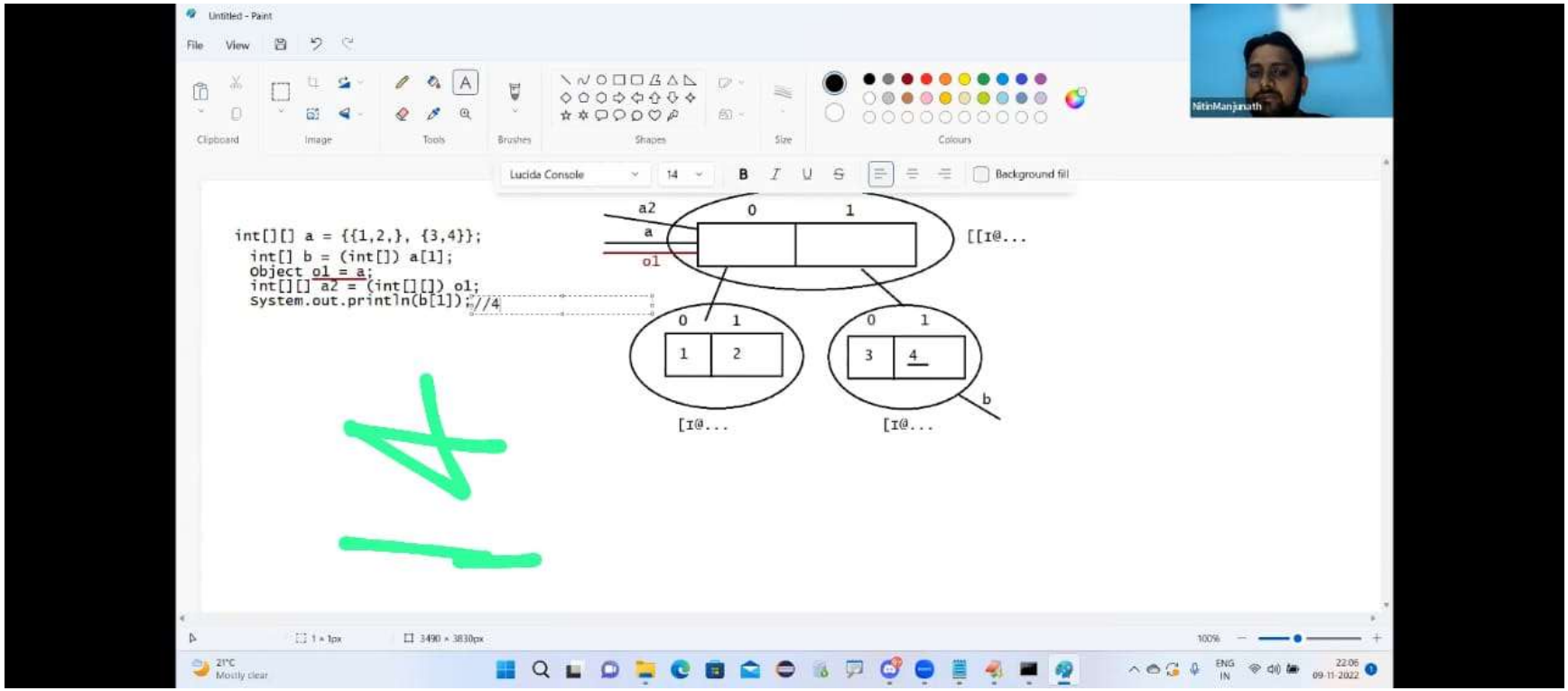

keep.google.com/#NOTE/1668002065004.1396294323
this() => constructor
Both this() & super() in same constructor
can write this()(or) super() => apart from first statement
=> purpose :- If some statement has to be executed the moment we create object => constructor
=> this() => Inside a one constructor => requirement
this() <- To call another body

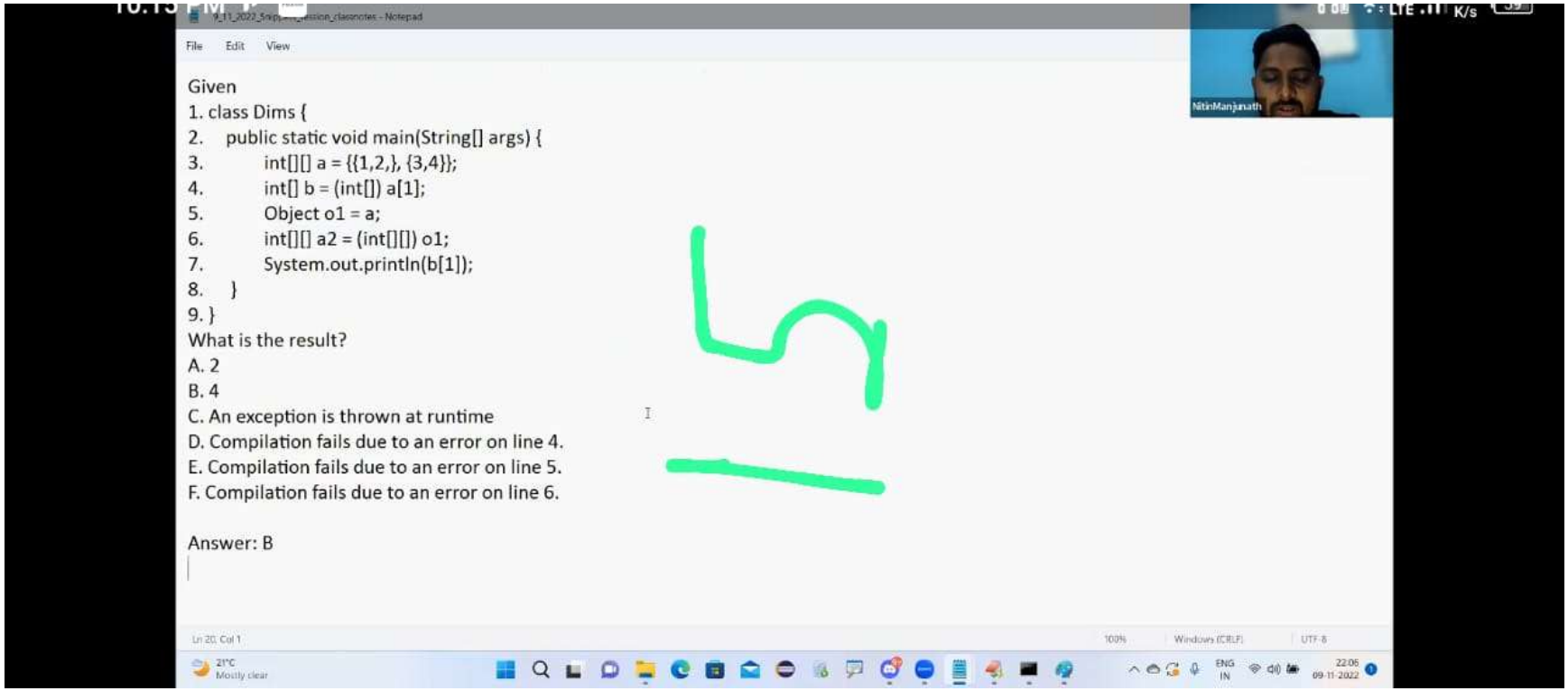
Hyder Abbas

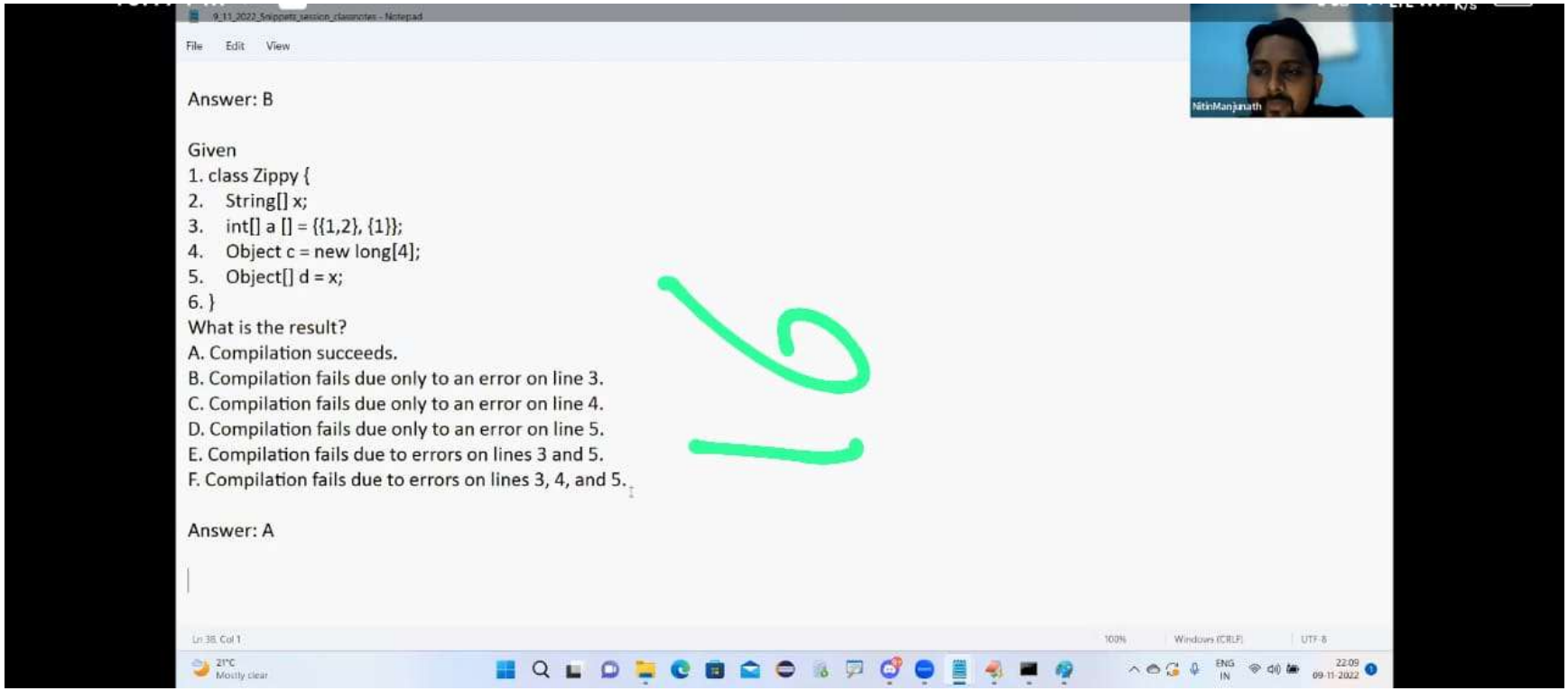

keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
⇒ this() ⇒ inside a one constructor ⇒ requirment
this() ← To call another body
⇒ this() ⇒ error
this
this()
keyword
to
refer to current
object
method()
⇒ it will call same class
constructor

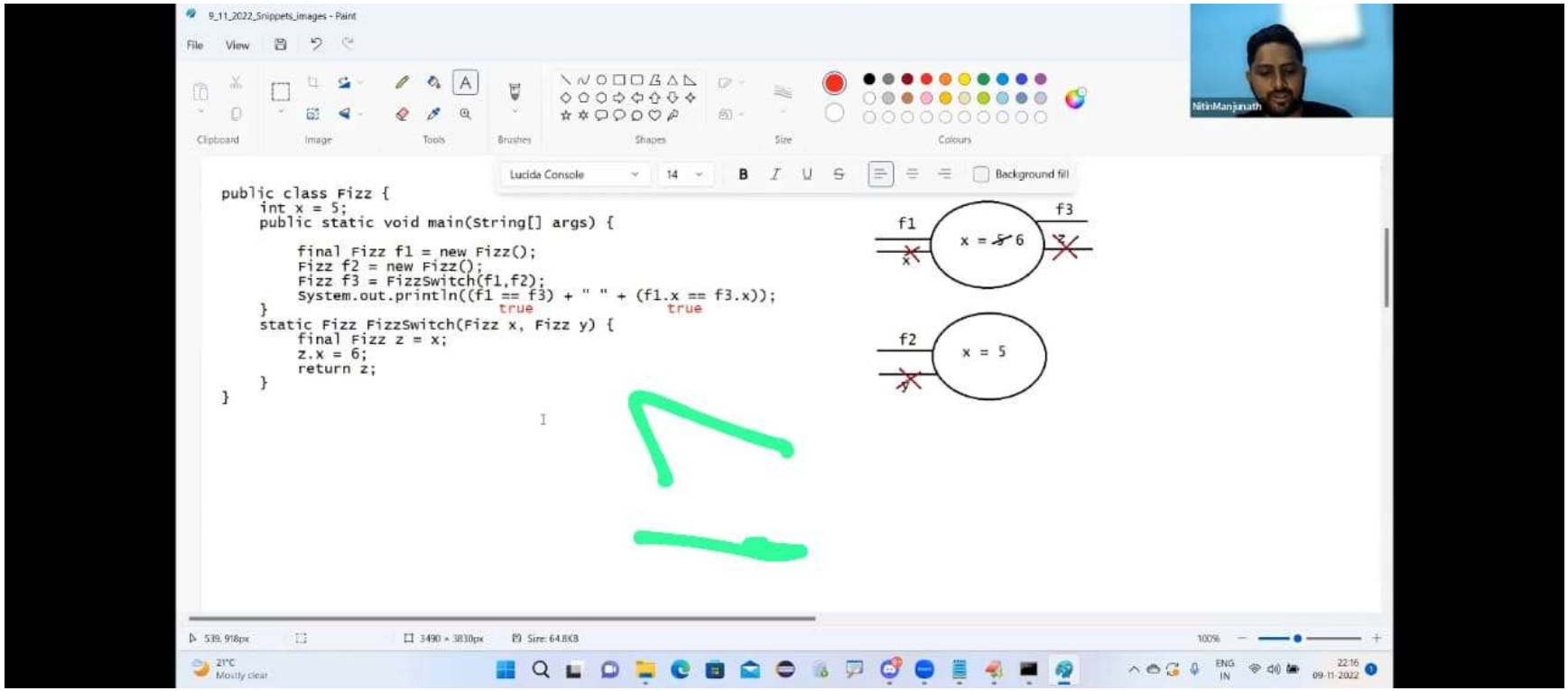

keep.google.com/#NOTE/1668002065004.1396294323
Hyder Abbas
Method
Constructor
=> call explicitly by calling name
=> return type explicitly (void, int, String)
=> return statement is allow
=> when object is created constructor is called.
=> no explicit return type
=> no return statement
12

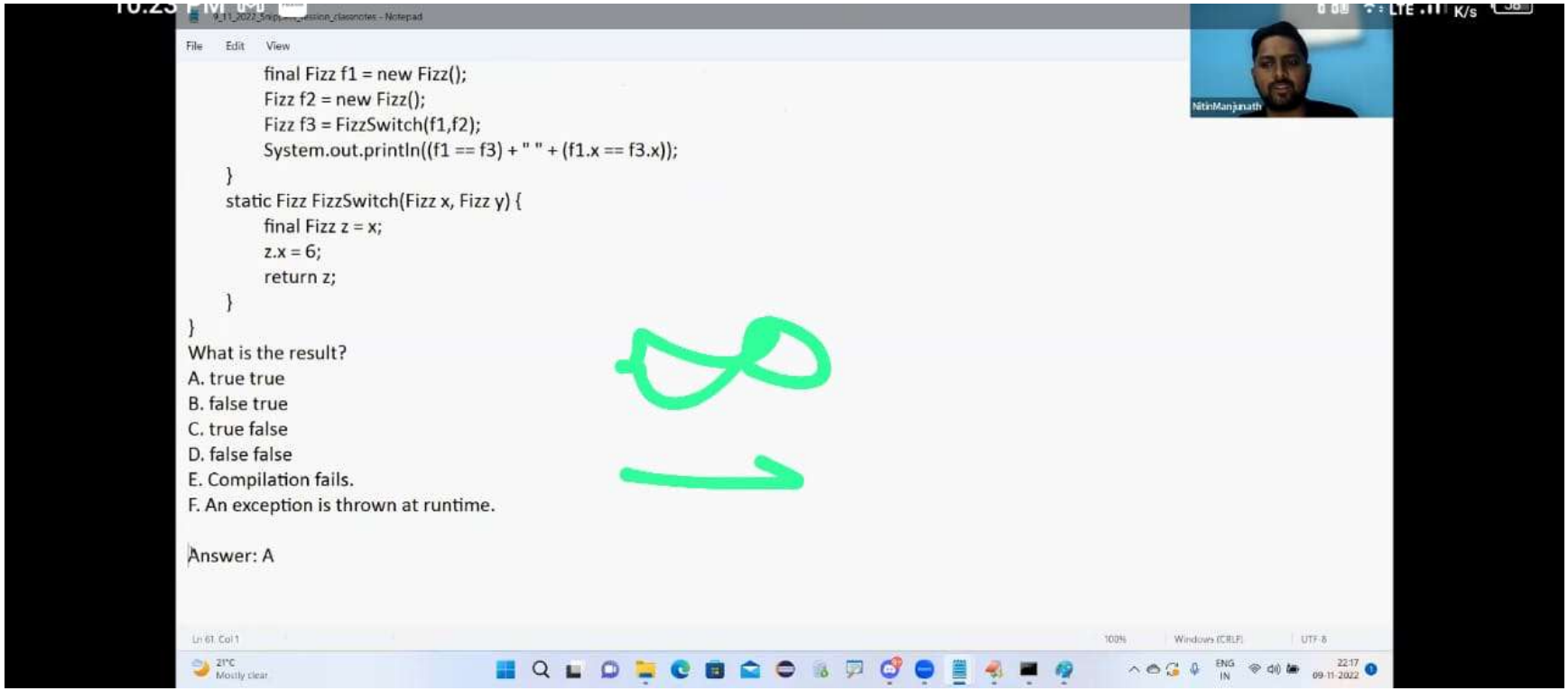

Package Explorer
LaunchAnagra...
LaunchPangra...
LaunchEncap...
LaunchDog.java
LaunchStd.java
LaunchStuden...
LaunchDB.ja
ArrayProg
Arrayss
CollectionAPI
Datatypes
DEMO
Encap
JRE System Library [JavaSE-17]
src
(default package)
ExceptionHandling
Game
Inherita
Interf
LambdaExp
Launch
Live class Datatypes
Loops
Methods
MultiT
Operator
Quiz
Quiz-1
SampleWebApp
Static Prog
Strings live class
StringsProg
JRE System Library [JavaSE-17]
src
(default package)
CopyStrings.java
LaunchAnagram.java
LaunchDB.java
LaunchDog.java
LaunchEncap.java
LaunchPalindrome.java
LaunchPangram.java
LaunchReverse.java
LaunchStd.java
LaunchStudent2.java
LaunchUtilsLAndLEJava
1 class DBConnectivity
2 {
3 public DBConnectivity()
4 {
5 System.out.println("Connect to database");
6 }
7 }
8
9
10
11 public class LaunchDB {
12
13 public static void main(String[] args) {
14 // TODO Auto-generated method stub
15
16 DBConnectivity db=new DBConnectivity();
17
18
19 }
20
21 }
22
Hyder Abbas
Writable
Smart Insert
7 : 2 : 100

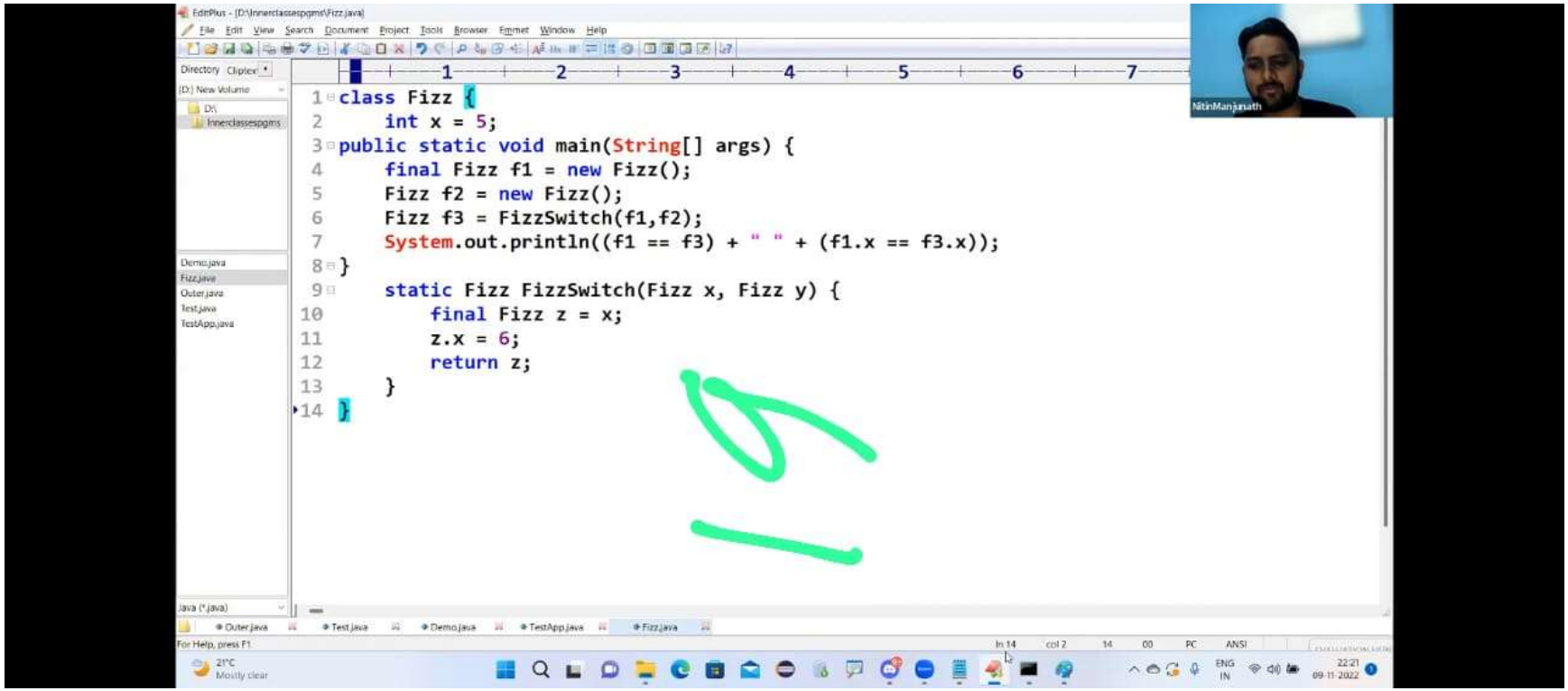

Untitled - Paint
File
View
Clipboard
Image
Tools
Brushes
Shapes
Size
Colours
NitinManjunath
Lucida Console
14
Background fill
int[][] a = {{1,2,}, {3,4}};
int[] b = (int[]) a[1];
Object o1 = a;
int[][] a2 = (int[][]) o1;
System.out.println(b[1]);//4
a2
a
o1
0
1
[[I@...
0
1
1
2
[I@...
0
1
3
4
b
[I@...
100%
21°C
Mostly clear
ENG
IN
22:06
09-11-2022


File Edit View
Given
1. class Dims {
2. public static void main(String[] args) {
3. int[][] a = {{1,2,}, {3,4}};
4. int[] b = (int[]) a[1];
5. Object o1 = a;
6. int[][] a2 = (int[][]) o1;
7. System.out.println(b[1]);
8. }
9. }
What is the result?
A. 2
B. 4
C. An exception is thrown at runtime
D. Compilation fails due to an error on line 4.
E. Compilation fails due to an error on line 5.
F. Compilation fails due to an error on line 6.
Answer: B
NitinManjunath


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
Answer: B
Given
1. class Zippy {
2. String[] x;
3. int[] a [] = {{1,2}, {1}};
4. Object c = new long[4];
5. Object[] d = x;
6. }
What is the result?
A. Compilation succeeds.
B. Compilation fails due only to an error on line 3.
C. Compilation fails due only to an error on line 4.
D. Compilation fails due only to an error on line 5.
E. Compilation fails due to errors on lines 3 and 5.
F. Compilation fails due to errors on lines 3, 4, and 5.
Answer: A
16
NitinManjunath
Ln 38, Col 1
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:09
09-11-2022


9_11_2022_Snippets_images - Paint
File
View
Clipboard
Image
Tools
Brushes
Shapes
Size
Colours
Lucida Console
14
Background fill
public class Fizz {
int x = 5;
public static void main(String[] args) {
final Fizz f1 = new Fizz();
Fizz f2 = new Fizz();
Fizz f3 = FizzSwitch(f1,f2);
System.out.println((f1 == f3) + " " + (f1.x == f3.x));
true true
}
static Fizz FizzSwitch(Fizz x, Fizz y) {
final Fizz z = x;
z.x = 6;
return z;
}
}
f1
f3
x = 6
x
f2
x = 5
NitinManjunath
539, 918px
3490 × 3830px
Size: 64.8KB
100%
21°C
Mostly clear
ENG
IN
22:16
09-11-2022


File Edit View
final Fizz f1 = new Fizz();
Fizz f2 = new Fizz();
Fizz f3 = FizzSwitch(f1,f2);
System.out.println((f1 == f3) + " " + (f1.x == f3.x));
}
static Fizz FizzSwitch(Fizz x, Fizz y) {
final Fizz z = x;
z.x = 6;
return z;
}
}
What is the result?
A. true true
B. false true
C. true false
D. false false
E. Compilation fails.
F. An exception is thrown at runtime.
Answer: A
NitinManjunath


EditPlus - [D:\Innerclassespgms\Fizz.java]
File Edit View Search Document Project Tools Browser Frmmet Window Help
Directory Cliptex
(D:) New Volume
D:\
Innerclassespgms
Demo.java
Fizz.java
Outer.java
Test.java
TestApp.java
Java (*.java)
1 class Fizz {
2 int x = 5;
3 public static void main(String[] args) {
4 final Fizz f1 = new Fizz();
5 Fizz f2 = new Fizz();
6 Fizz f3 = FizzSwitch(f1,f2);
7 System.out.println((f1 == f3) + " " + (f1.x == f3.x));
8 }
9 static Fizz FizzSwitch(Fizz x, Fizz y) {
10 final Fizz z = x;
11 z.x = 6;
12 return z;
13 }
14 }
Outer.java
Test.java
Demo.java
TestApp.java
Fizz.java
For Help, press F1
ln 14 col 2 14 00 PC ANSI
21°C
Mostly clear
ENG
IN
22:21
09-11-2022
NitinManjunath

9_11_2022_Snippets_session_classnotes - Notepad

File Edit View

```
43.  public int getValue() {
44.        int value=0;
45.        boolean setting = true;
46.        String title="Hello";
47.        if (value || (setting && title == "Hello")) { return 1; }
48.        if (value == 1 & title.equals("Hello")) { return 2; }
49.  }
50. }
```

And:

```
70. ClassA a = new ClassA();
71.  a.getValue();
```

What is the result?

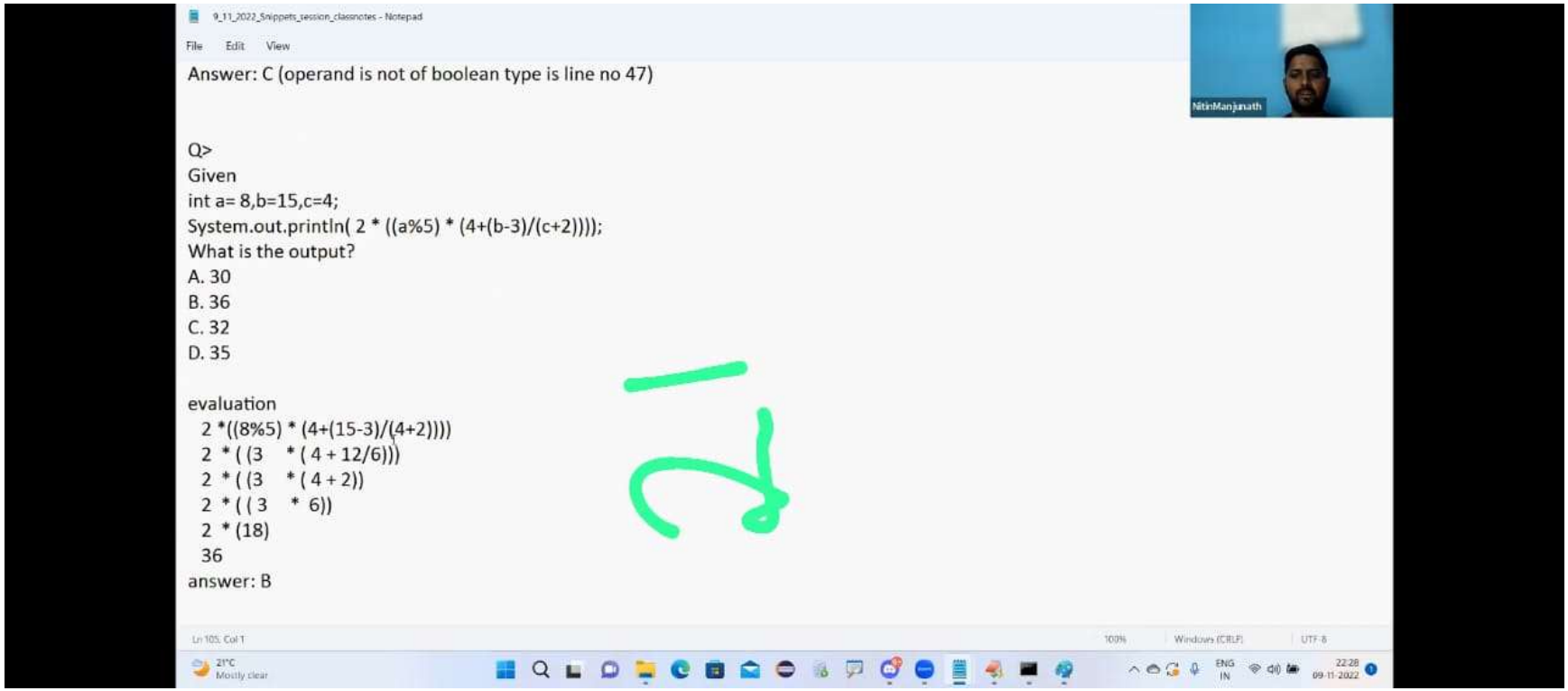
A. 1
B. 2
C. Compilation fails.
D. The code runs with no output.
E. An exception is thrown at runtime.

Answer: C (operand is not of boolean type is line no 47)

Ln 87, Col 1 100% Windows (CRLF) UTF-8

21°C Mostly clear

ENG IN 22:25 09-11-2022


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
Answer: C (operand is not of boolean type is line no 47)
NitinManjunath
Q>
Given
int a= 8,b=15,c=4;
System.out.println(2 * ((a%5) * (4+(b-3)/(c+2))));
What is the output?
A. 30
B. 36
C. 32
D. 35
evaluation
2 *((8%5) * (4+(15-3)/(4+2)))
2 * ((3 * (4 + 12/6)))
2 * ((3 * (4 + 2))
2 * ((3 * 6))
2 * (18)
36
answer: B
Ln 105, Col 1
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:28
09-11-2022

9_11_2022_Snippets_session_classnotes - Notepad

File Edit View

Q>
What will be the result of compiling and executing DivModTest class?

```
public class DivModTest {
   public static void main(String[] args) {
      System.out.println( 23 / 2.0 ); // 11.5
      System.out.println( 23 % 2.0 );// 1.0
   }
}
```

A. 11
   1
B. 11.5
   1.0
c. 11.0
   1.0
D. 11.5
   0.0

Answer: B

Ln 127, Col 1 100% Windows (CRLF) UTF-8

21°C Mostly clear

ENG IN 22:30 09-11-2022

9_11_2022_Snippets_session_classnotes - Notepad

File Edit View

D. 11.5
0.0

Answer: B

Q>
What will be the result of compiling and executing Test class?

```
public class Test {
   public static void main(String[] args) {
      System.out.println("Hello" + 1 + 2 + 3 + 4);
   }
}
```

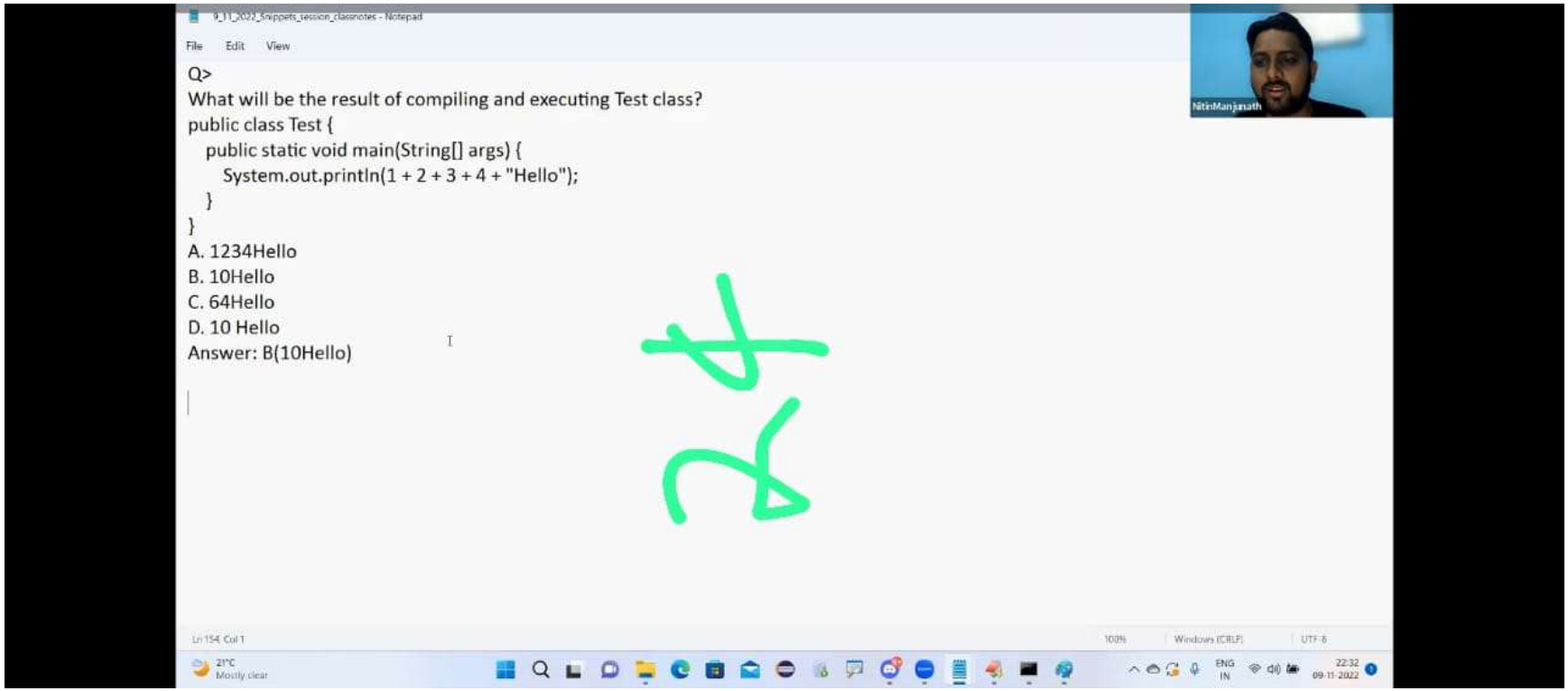
A. Hello10
B. Hello19
C. Hello1234
D. Hello10

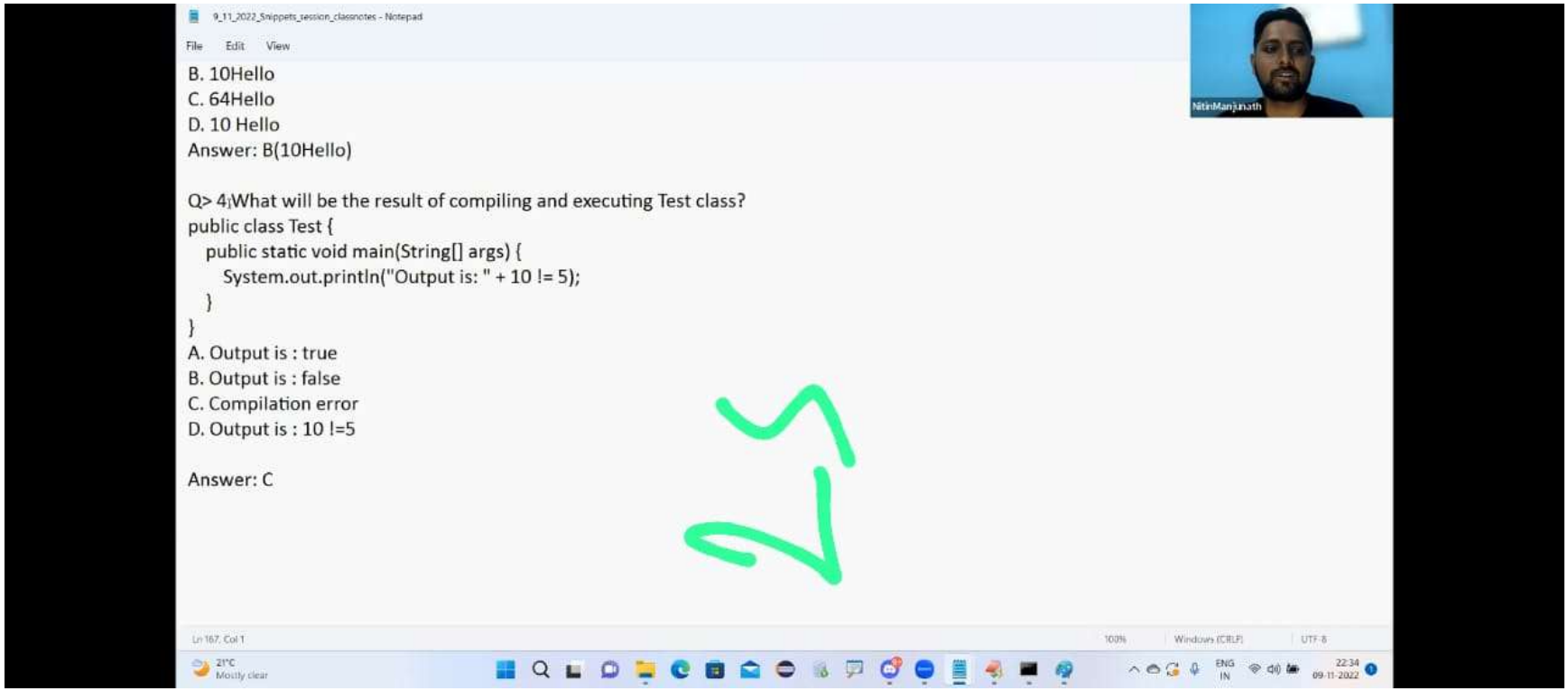
Answer: C

Ln 141, Col 1 100% Windows (CRLF) UTF-8

21°C Mostly clear

ENG IN 22:31 09-11-2022


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
Q>
What will be the result of compiling and executing Test class?
public class Test {
public static void main(String[] args) {
System.out.println(1 + 2 + 3 + 4 + "Hello");
}
}
A. 1234Hello
B. 10Hello
C. 64Hello
D. 10 Hello
Answer: B(10Hello)
Ln 154, Col 1
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:32
09-11-2022


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
B. 10Hello
C. 64Hello
D. 10 Hello
Answer: B(10Hello)
Q> 4¡What will be the result of compiling and executing Test class?
public class Test {
public static void main(String[] args) {
System.out.println("Output is: " + 10 != 5);
}
}
A. Output is : true
B. Output is : false
C. Compilation error
D. Output is : 10 !=5
Answer: C
NitinManjunath
Ln 167, Col 1
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:34
09-11-2022

9_11_2022_Snippets_session_classnotes - Notepad

File Edit View

B. 10Hello
C. 64Hello
D. 10 Hello
Answer: B(10Hello)

Q> What will be the result of compiling and executing Test class?

```
public class Test {
   public static void main(String[] args) {
      System.out.println("Output is: " + 10 != 5);
   }
}
```

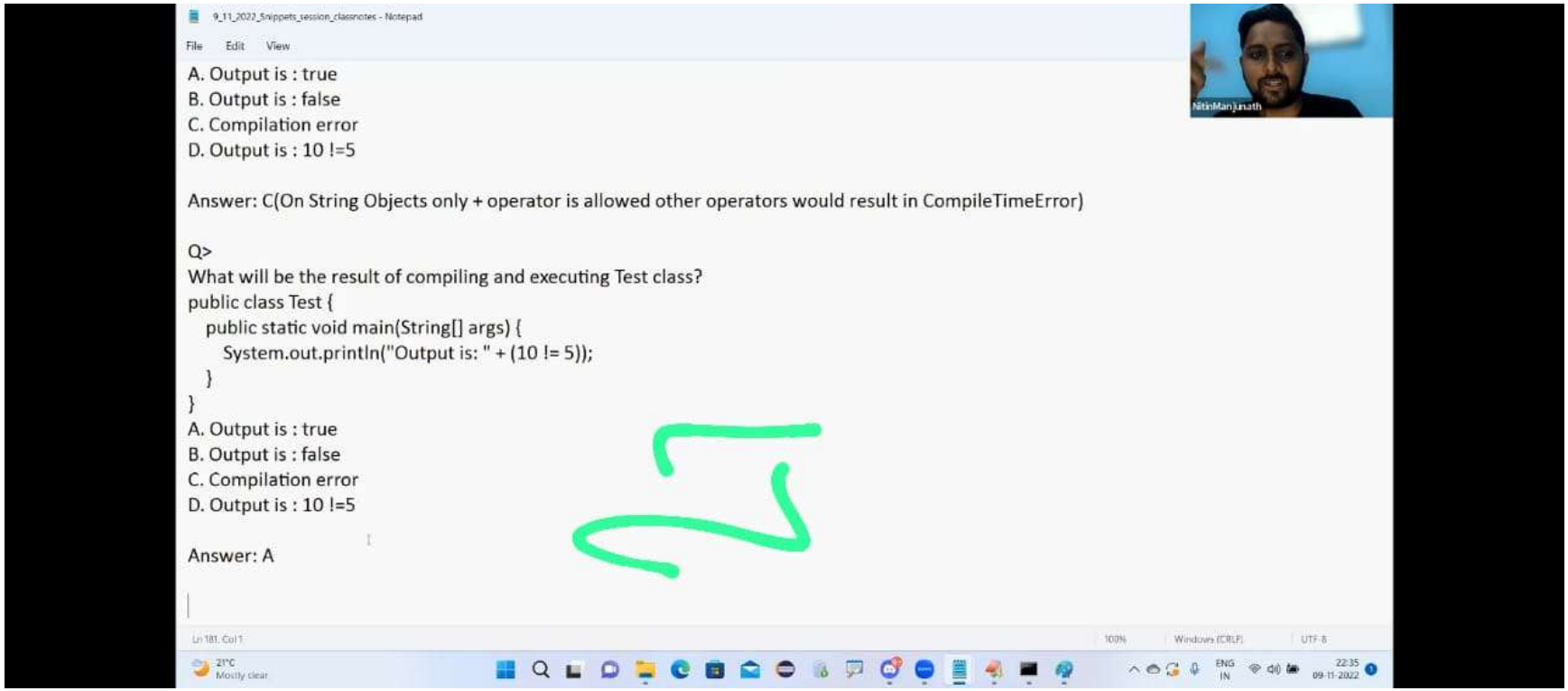
A. Output is : true
B. Output is : false
C. Compilation error
D. Output is : 10 !=5

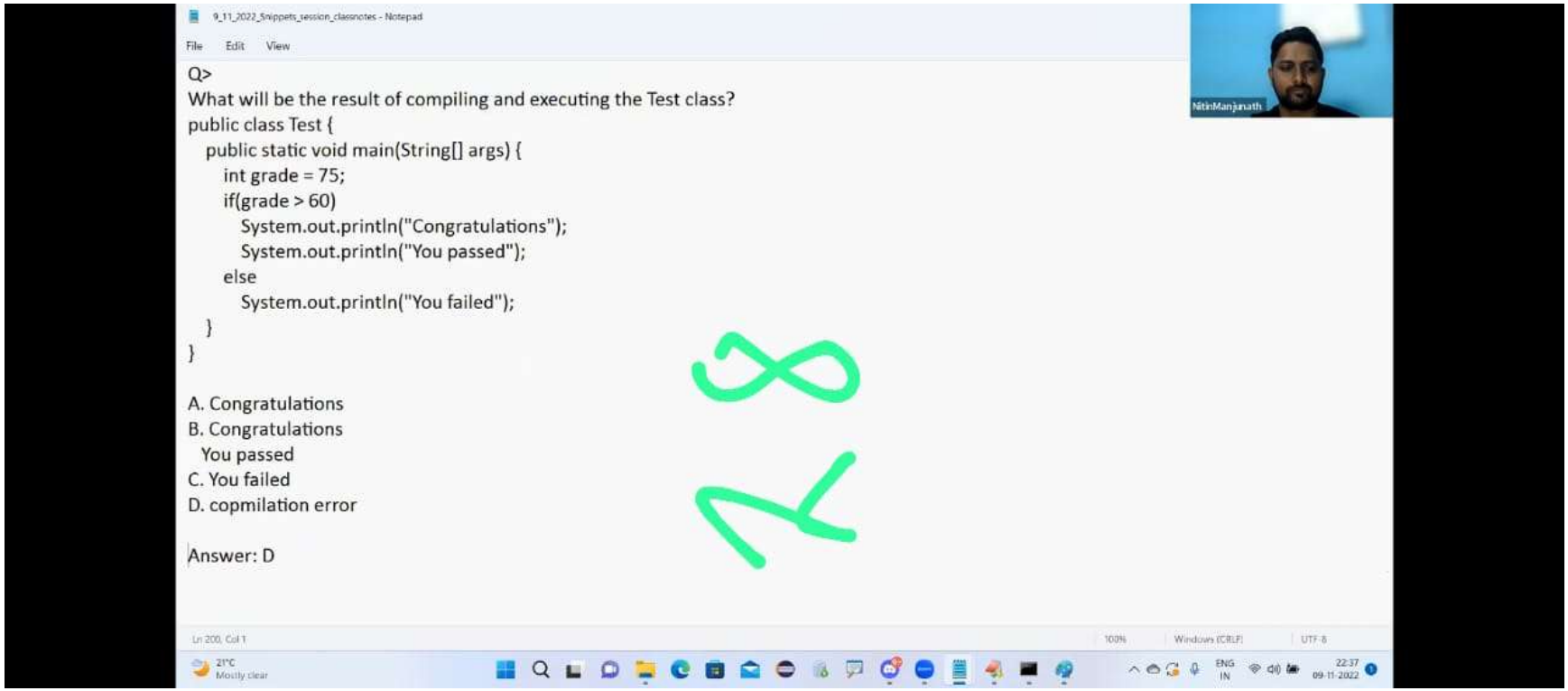
Answer: C(On String Objects only + operator is allowed other operators would result in CompileTimeError)

Ln 167, Col 1 100% Windows (CRLF) UTF-8

21°C Mostly clear

ENG IN 22:34 09-11-2022


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
A. Output is : true
B. Output is : false
C. Compilation error
D. Output is : 10 !=5
Answer: C(On String Objects only + operator is allowed other operators would result in CompileTimeError)
Q>
What will be the result of compiling and executing Test class?
public class Test {
public static void main(String[] args) {
System.out.println("Output is: " + (10 != 5));
}
}
A. Output is : true
B. Output is : false
C. Compilation error
D. Output is : 10 !=5
Answer: A
NitinManjunath


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
Q>
What will be the result of compiling and executing the Test class?
public class Test {
public static void main(String[] args) {
int grade = 75;
if(grade > 60)
System.out.println("Congratulations");
System.out.println("You passed");
else
System.out.println("You failed");
}
}
A. Congratulations
B. Congratulations
You passed
C. You failed
D. copmilation error
Answer: D
NitinManjunath
Ln 200, Col 1
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:37
09-11-2022

*9_11_2022_Snippets_session_classnotes - Notepad

File Edit View

D. compilation error

Answer: D

Q>
What will be the result of compiling and executing the Test class?

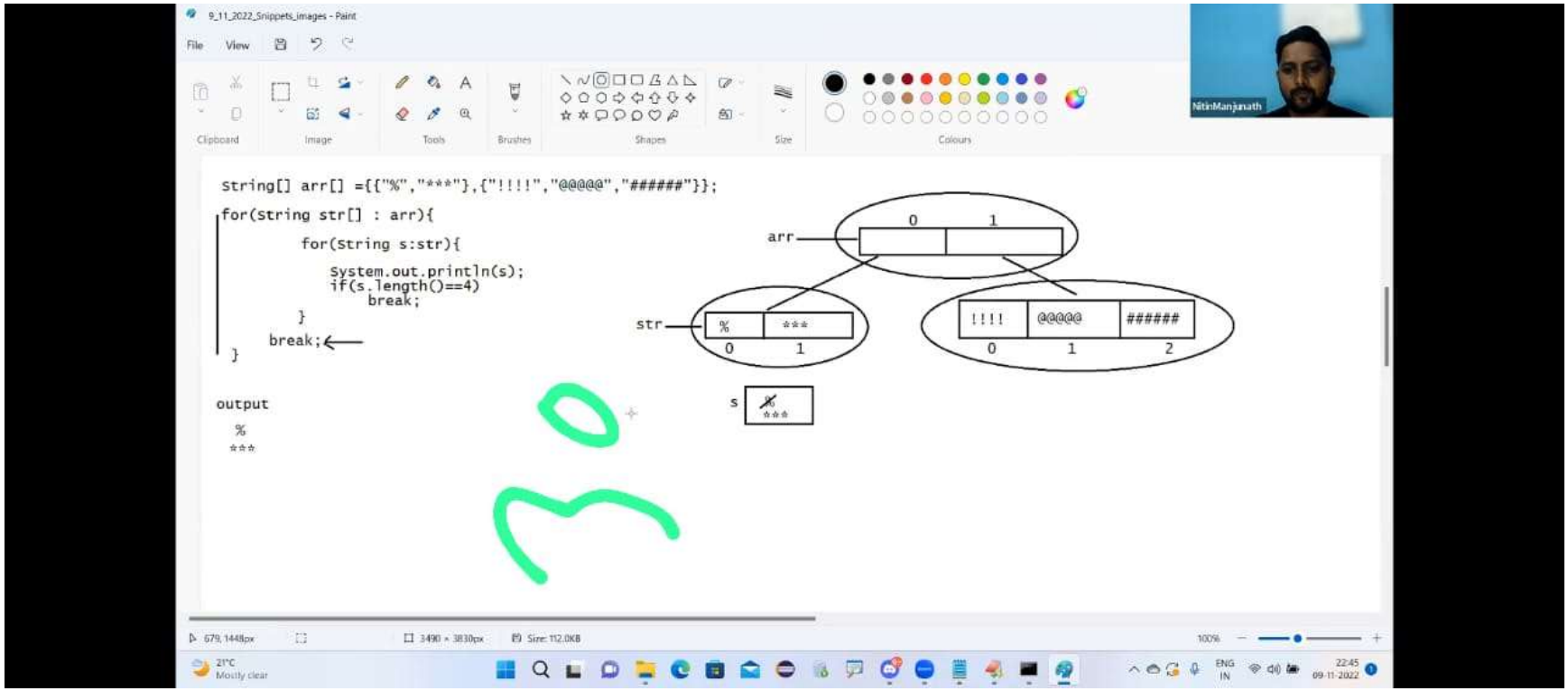
```
public class Test {
   public static void main(String[] args) {
      int grade = 60;
      if(grade = 60)
         System.out.println("You passed...");
      else
         System.out.println("You failed...");
   }
}
```

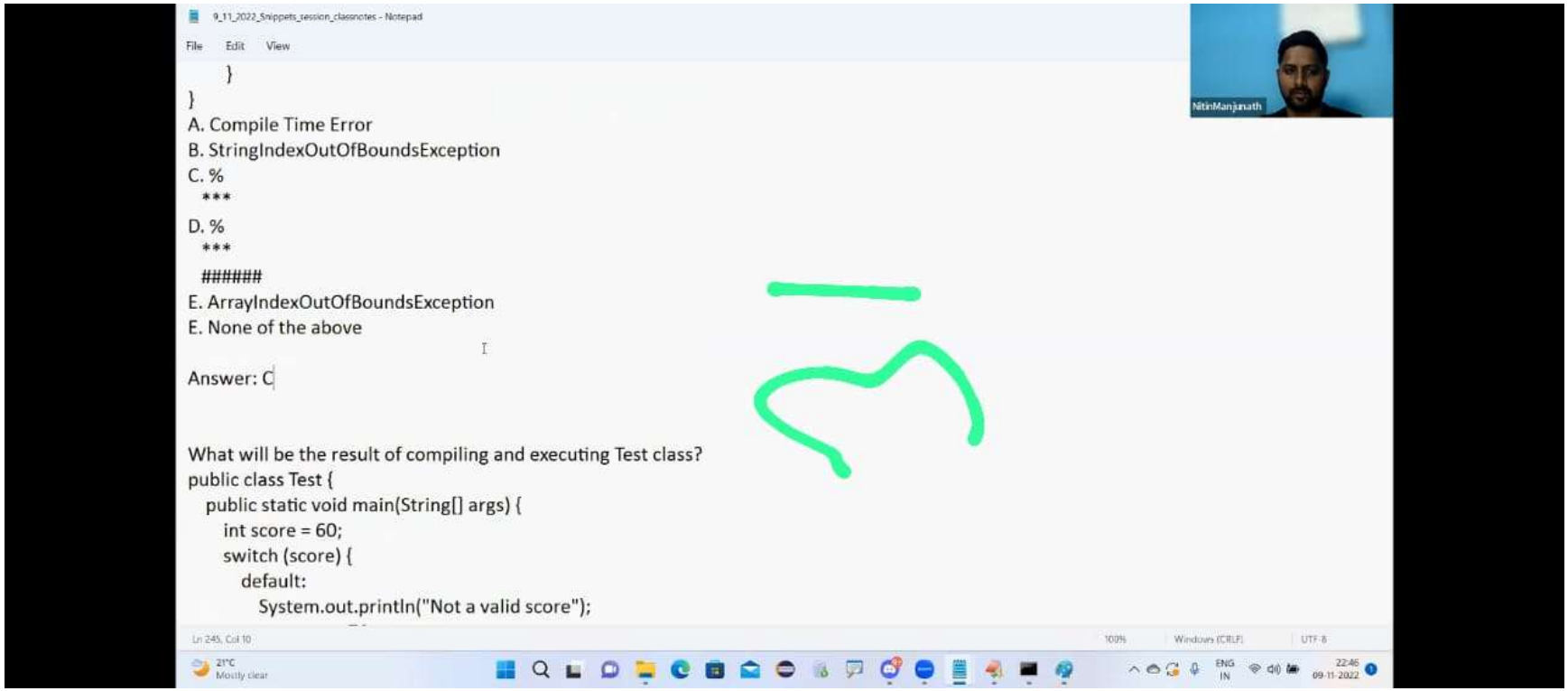
A. You passed...
B. You failed...
C. compilation error
D. Produces not output

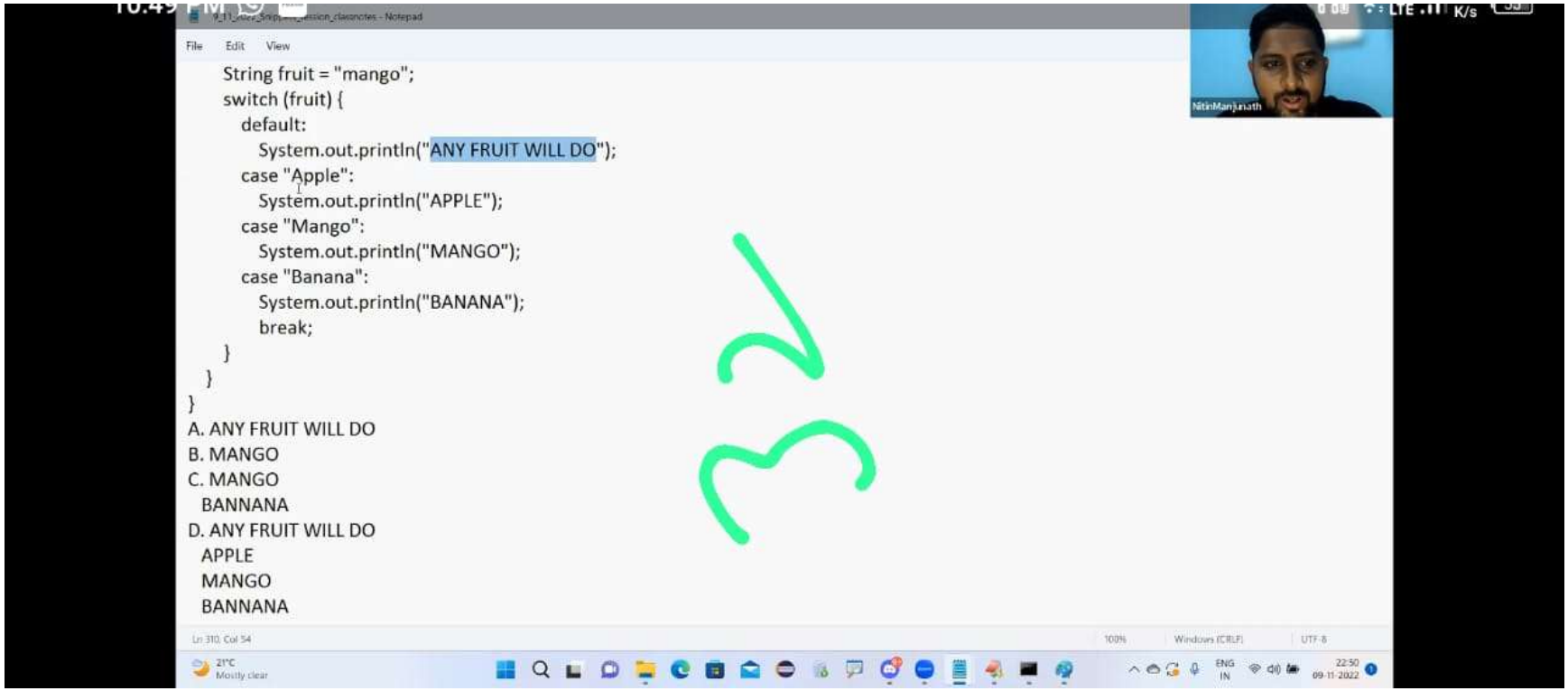
Answer: C

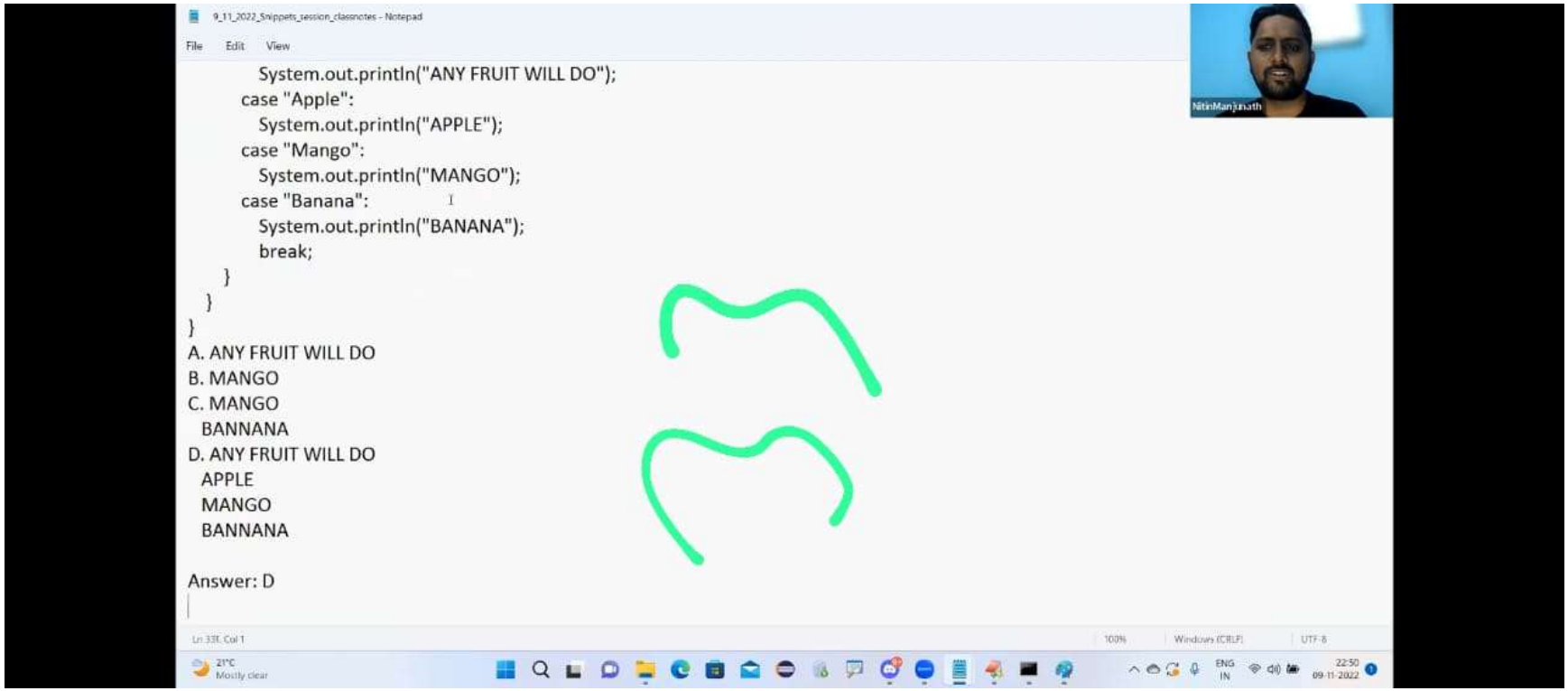
Ln 219, Col 1 100% Windows (CRLF) UTF-8

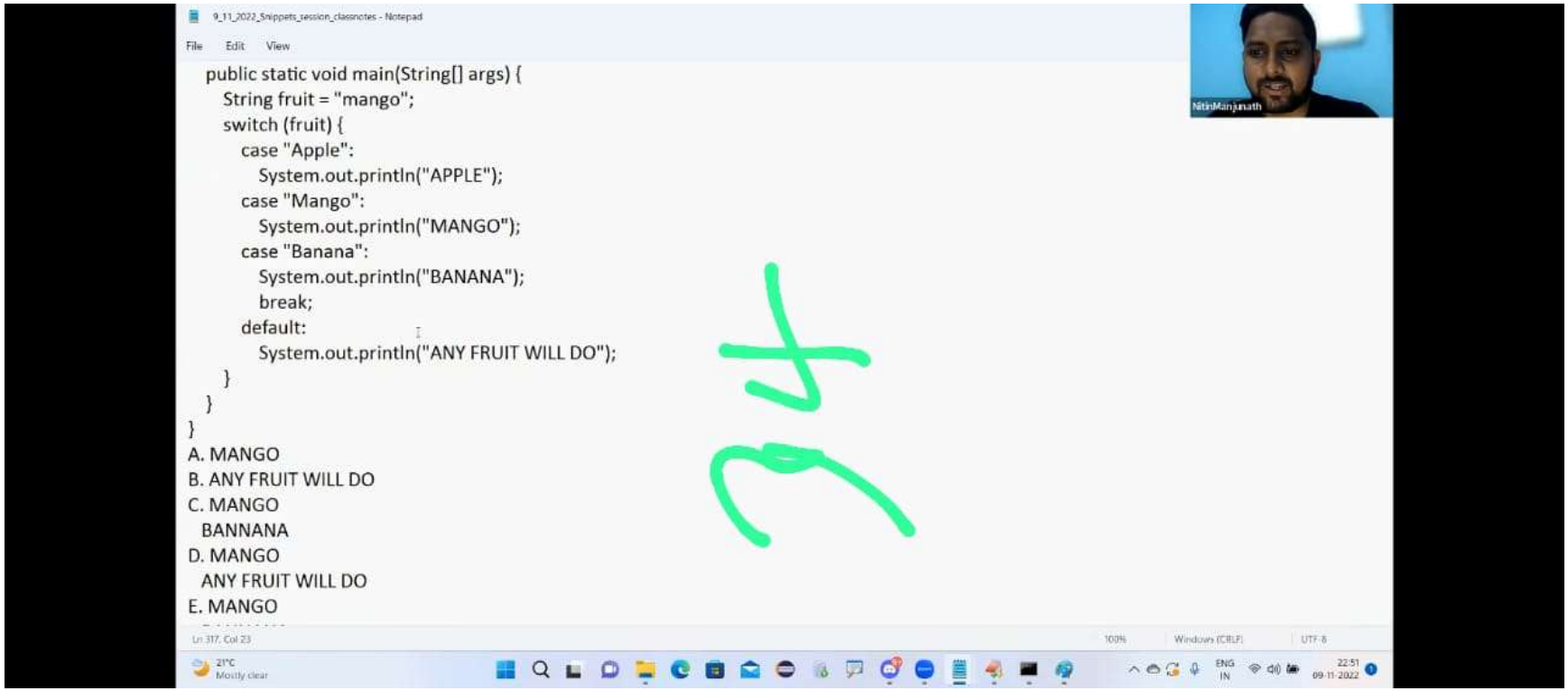
21°C Mostly clear ENG IN 22:38 09-11-2022


9_11_2022_Snippets_images - Paint
File
View
Clipboard
Image
Tools
Brushes
Shapes
Size
Colours
NitinManjunath
String[] arr[] ={{"%","***"},{"!!!!","@@@@@","######"}};
for(String str[] : arr){
for(String s:str){
System.out.println(s);
if(s.length()==4)
break;
}
break;
}
output
%
***
arr
0
1
str
%
***
0
1
!!!!
@@@@@
######
0
1
2
s
%
***
679, 1448px
3490 × 3830px
Size: 112.0KB
100%
21°C
Mostly clear
ENG
IN
22:45
09-11-2022


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
}
}
A. Compile Time Error
B. StringIndexOutOfBoundsException
C. %
***
D. %
***
######
E. ArrayIndexOutOfBoundsException
E. None of the above
Answer: C
What will be the result of compiling and executing Test class?
public class Test {
public static void main(String[] args) {
int score = 60;
switch (score) {
default:
System.out.println("Not a valid score");
NitinManjunath
Ln 245, Col 10
100%
Windows (CRLF)
UTF-8
21°C
Mostly clear
ENG
IN
22:46
09-11-2022


File Edit View
String fruit = "mango";
switch (fruit) {
default:
System.out.println("ANY FRUIT WILL DO");
case "Apple":
System.out.println("APPLE");
case "Mango":
System.out.println("MANGO");
case "Banana":
System.out.println("BANANA");
break;
}
}
}
A. ANY FRUIT WILL DO
B. MANGO
C. MANGO
BANNANA
D. ANY FRUIT WILL DO
APPLE
MANGO
BANNANA
NitinManjunath


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
System.out.println("ANY FRUIT WILL DO");
case "Apple":
System.out.println("APPLE");
case "Mango":
System.out.println("MANGO");
case "Banana":
System.out.println("BANANA");
break;
}
}
}
A. ANY FRUIT WILL DO
B. MANGO
C. MANGO
BANNANA
D. ANY FRUIT WILL DO
APPLE
MANGO
BANNANA
Answer: D
NitinManjunath


9_11_2022_Snippets_session_classnotes - Notepad
File Edit View
public static void main(String[] args) {
String fruit = "mango";
switch (fruit) {
case "Apple":
System.out.println("APPLE");
case "Mango":
System.out.println("MANGO");
case "Banana":
System.out.println("BANANA");
break;
default:
System.out.println("ANY FRUIT WILL DO");
}
}
}
A. MANGO
B. ANY FRUIT WILL DO
C. MANGO
BANNANA
D. MANGO
ANY FRUIT WILL DO
E. MANGO
NitinManjunath