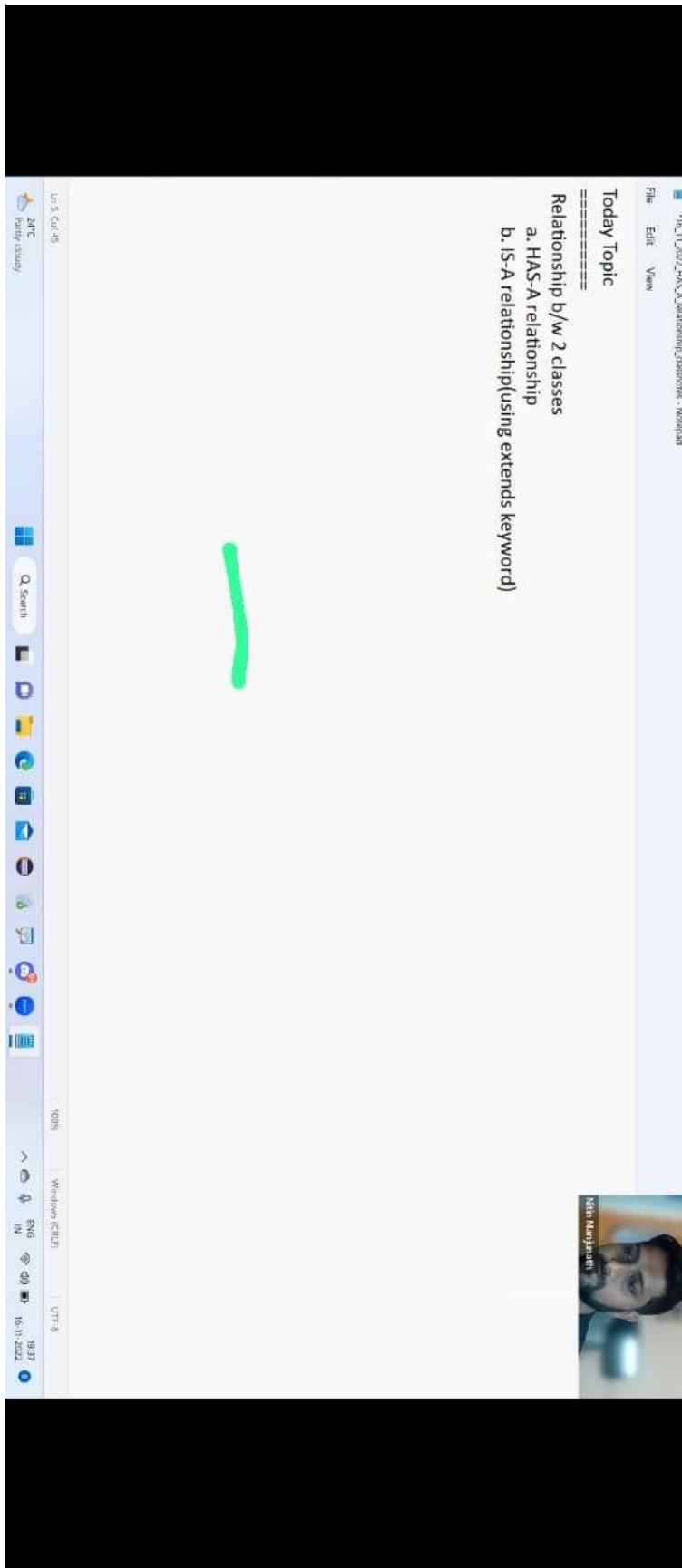


Has Relationship Dependency Injection



```
+16.11.2022-HAS_A_Relationships - Notepad  
File Edit View  
  
eg#2  
class Address{//Dependant Object  
}  
  
class Student{//Target Object  
//HAS-A relationship  
Address address; //instance variable  
}  
  
eg#3  
class Account{//Dependant Object  
}  
  
class Employee{//Target Object  
//HAS-A relationship  
Account account; //instance variable  
}
```

2



23°C
Partly cloudy



16:32 Col 37

Windows [CEP] | UTF-8

ENG ENG 19:47

IN IN 16.11.2022

16.11.2022-HAS-A relationship-classnotes - Notepad

File Edit View

Dependancy Injection

=====

The process of injecting dependant object into target object is called as "Dependancy injection".

eg#1

```
class Engine { //Dependant Object
}
class Car{//Target Object
    //HAS-A relationship
    Engine engine; //instance variable
}
```

eg#2

```
class Address{//Dependant Object
}

class Student{//Target Object
}
```

16.11.2022
Fully Study

23°C

Q. Search

100% Windows (CEP) UTF-8

Nitin Maruparthi

ENG IN 19:48 16.11.2022

16.11.2022-HAS-A relationship classnotes - Microsoft Word
File Edit View
=====

The process of injecting dependant object into target object is called as "Dependancy injection".

We can achieve dependancy injection in 2 ways

- a. Constructor dependency injection
- b. Setter dependency injection

a. Constructor dependency injection

Injecting dependant object into target object through a constructor is called as "Constructor Dependancy injection".

b. Setter dependency injection

Injecting dependant object into target object through a setter is called as "Setter Dependancy injection".

```
eg#1  
class Engine { //Dependant Object  
}  
class Car{//Target Object  
//HAS-A relationship  
Engine engine; //instance variable  
}
```

4



Ur 8 Col 32
23°C Party (Study)
Q. Search



100% Windows (C:\EF7) UTF-8

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Relationships in JAVA

As part of Java application development, we have to use entities as per the application requirements.

In Java application development, if we want to provide optimizations over memory utilization, code Reusability, Execution Time, Sharability then we have to define relationships between entities.

There are three types of relationships between entities,

- 1.HAS-A relationship (extensively used in projects)
- 2.IS-A relationship
- 3.USE-A relationship(not popular)

Q)What is the difference between HAS-A Relationship and IS-A relationship?

Ans:

Has-A relationship will define associations between entities in Java applications, here associations between entities will improve communication between entities and data navigation between entities.

IS-A Relationship is able to define inheritance between entity classes, it will improve "Code Reusability" in java applications.

Associations in JAVA

There are four types of associations between entities

1.One-To-One Association

2.One-To-Many Association

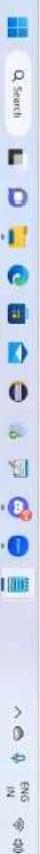
3.Many-To-One Association

4.Many-To-Many Association



To achieve associations between entities, we have to declare either single reference or array of reference variables of an entity class in another entity class.

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File Edit View
Nitin Marajath

16.11.2022-HAS-A_relationships - Notepad

There are three types of relationships between entities.
1.HAS-A relationship (extensively used in projects)
2.IS-A relationship (achieved using extends keyword)
3.USE-A relationship(not popular)

Q)What is the difference between HAS-A Relationship and IS-A relationship?

Ans:

Has-A relationship will define associations between entities in Java applications, here associations between entities will improve communication between entities and data navigation between entities.

IS-A Relationship is able to define inheritance between entity classes, it will improve "Code Reusability" in java applications.

Associations in JAVA

=====

There are four types of associations between entities

- 1.One-To-One Association
- 2.One-To-Many Association
- 3.Many-To-One Association
- 4.Many-To-Many Association

6

16.11.2022-HAS_A_relationship_classnames - Microsoft Word

File Edit View

Ans:

Has-A relationship will define associations between entities(class) in Java applications, here associations between entities, improve communication between entities and data navigation between entities.

IS-A Relationship is able to define inheritance between entity classes, it will improve "Code Reusability" in java applications.

Associations in JAVA

There are four types of associations between entities

1. One-To-One Association (1:1)
2. One-To-Many Association (1:M)
3. Many-To-One Association (M:1)
4. Many-To-Many Association (M:M)



To achieve associations between entities, we have to declare either single reference or array of reference variables of an entity class in another entity class.

```
class Address{  
}  
  
class Account{  
}
```



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Q. Search

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16.11.2022

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16.11.2022-HAS_A_relationships - Notepad

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Associations in JAVA

There are four types of associations between entities

1. One-To-One Association(1:1)
2. One-To-Many Association (1:M)
3. Many-To-One Association (M:1)
4. Many-To-Many Association (M:M)

To achieve associations between entities, we have to declare either single reference or array of reference variables of an entity class in another entity class.

```
class Address{  
    _____  
}  
class Account{  
    _____  
}  
class Employee{  
    _____  
}
```

Address[] addr; // it will establish One-To-Many Association (1:M)
Account account; // One-To-One Association(1:1)

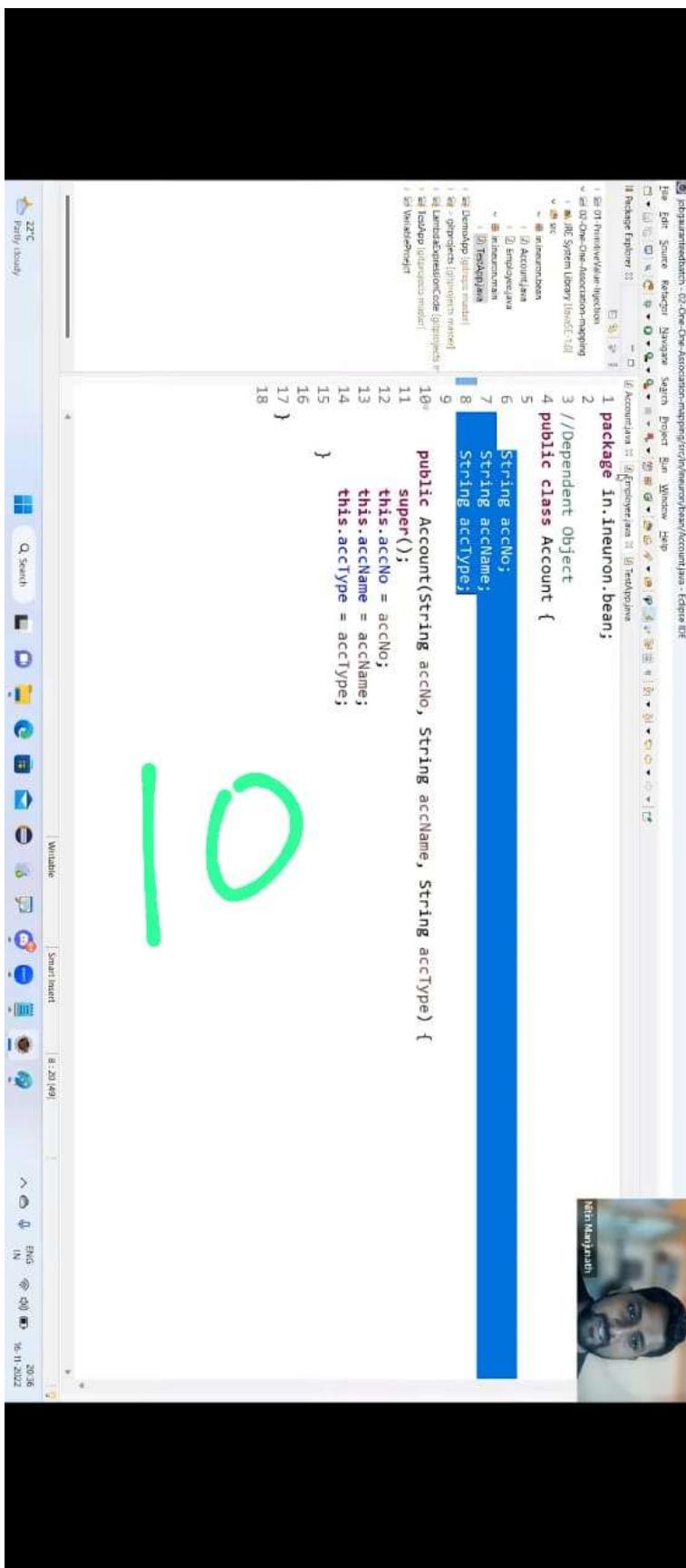
16.11.2022 • 23°C Partly cloudy

Q. Search

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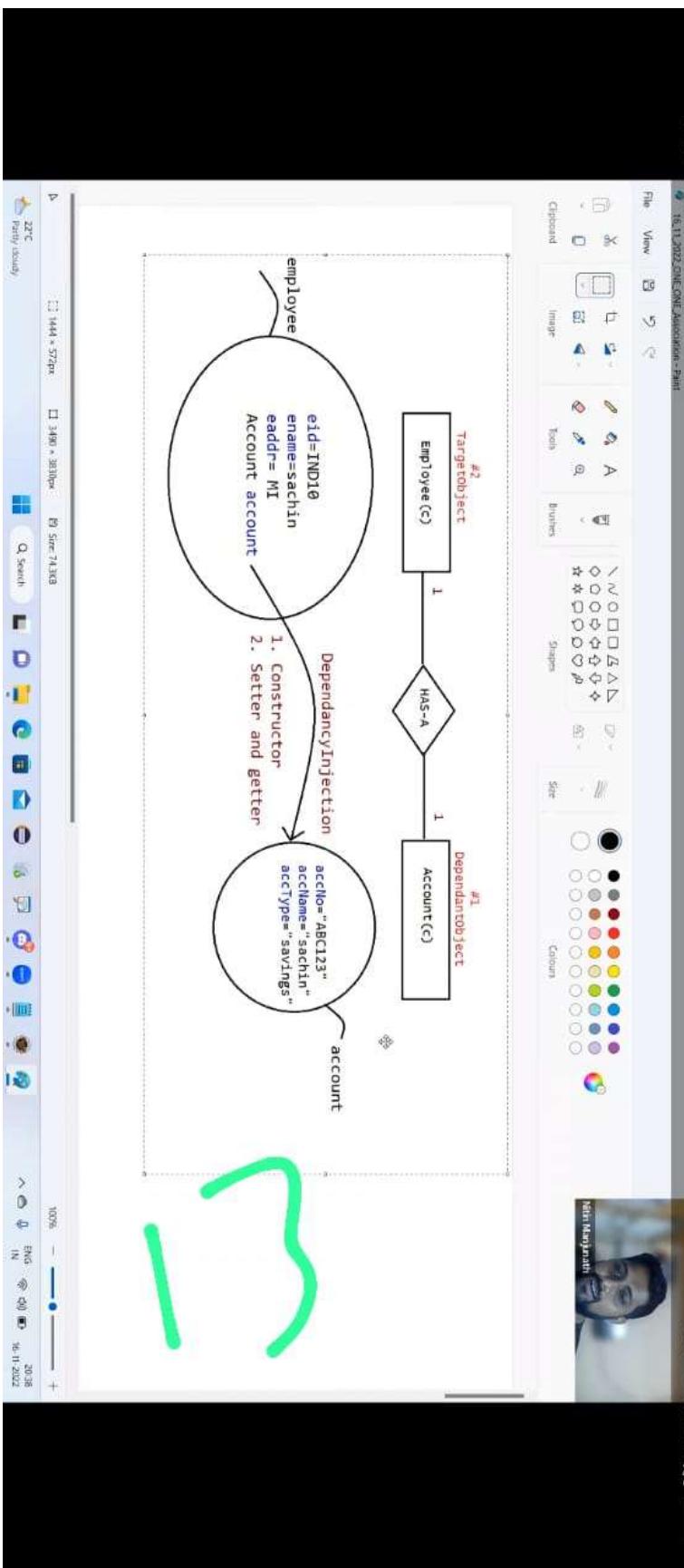


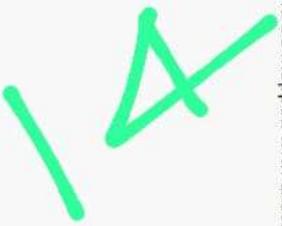




```
File Edit Source Refactor Navigate Search Project Run Window Help
[File Edit Source Refactor Navigate Search Project Run Window Help]
1 package in.ineuron.main;
2
3 import in.ineuron.bean.Account;
4 import in.ineuron.bean.Employee;
5
6 public class TestApp {
7
8     public static void main(String[] args) {
9         Account account = new Account("ABC123", "sachin", "Savings");
10        // Constructor Injection
11        Employee employee = new Employee("IND10", "sachin", "MI", account);
12        employee.getEmployeeDetails();
13    }
14
15 }
16
17
18 }
```

અનુભૂતિ





```
16.11.2022-HAS_A_oneTooneMappingClassDiagram - Notepad
File Edit View
}
class Account{
}
class Employee{
}
Address[] addr;//it will establish One-To-Many Association (1:M)
Account account; // One-To-One Association(1:1)
}

1.One-To-One Association:
It is a relation between entities, where one instance of an entity should be mapped with exactly one instance of another entity.
eg: Every employee should have exactly one Account.

eg: 02-One-One-Association-mapping
```

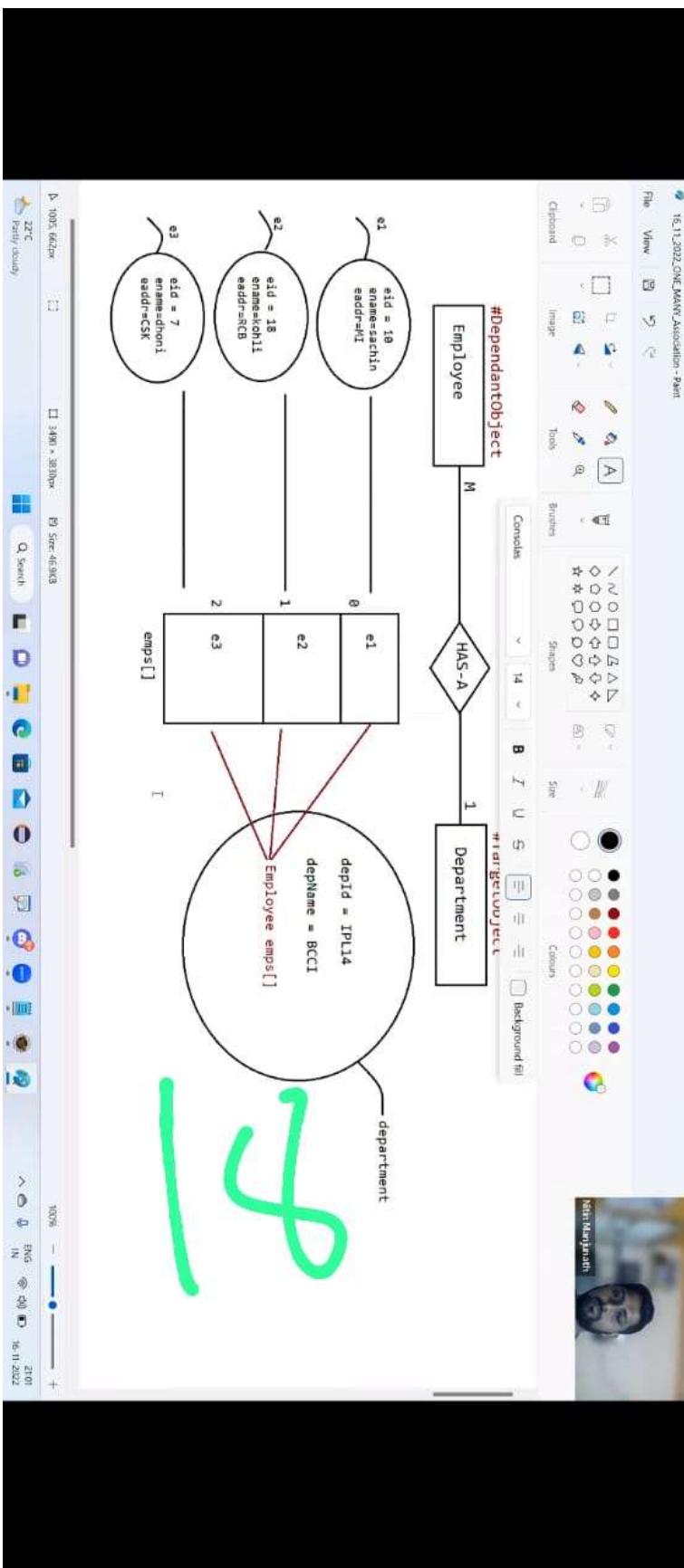
```
 9 Association-mapping-on-injected-base/Department.java Eclipse Diff
10 Search Project Run Window Help
11 Implementation If Redefines All Department.java
12 1 package in.ineuron.bean;
13
14 //Target Object
15
16 public class Department {
17
18     // HAS-A variable
19     private String did;
20
21     // Constructor Injection
22     public Department(String did, String dname, Employee[] emps) {
23         super();
24         this.did = did;
25         this.dname = dname;
26         this.emps = emps;
27     }
28
29     public void getDepartmentDetails() {
30
31         System.out.println("-----");
32         System.out.println("Department Id : " + did);
33         System.out.println("Department Name : " + dname);
34         System.out.println();
35     }
36 }
```

15

```
12 // Constructor
13 public Department(String did, String dname, Employee[] emps) {
14     super();
15     this.did = did;
16     this.dname = dname;
17     this.emps = emps;
18 }
19
20+
21 public void getDepartmentDetails() {
22     System.out.println("-----");
23     System.out.println("Department Details");
24     System.out.println("-----");
25     System.out.println("Department Id :" + did);
26     System.out.println("Department Name :" + dname);
27     System.out.println("-----");
28     System.out.println("Employee details are : ");
29     System.out.println("-----");
30     for (Employee employee : emps) {
31         System.out.println("Employee id :: " + employee.eid);
32         System.out.println("Employee name :: " + employee.ename);
33         System.out.println("Employee address:: " + employee.eaddr);
34     }
35 }
36
37 }
```

16





```
9*
10 public String getBid() {
11     return bid;
12 }
13*
14 public void setBid(String bid) {
15     this.bid = bid;
16 }
17*
18 public String getBname() {
19     return bname;
20 }
21*
22 public void setBname(String bname) {
23     this.bname = bname;
24 }
25 }
26 }
```

Peter Marquardt

Job厭学者 - CH-MANY-ONE-Association-mapping/Implementation/Java/Student.java - Eclipse IDE

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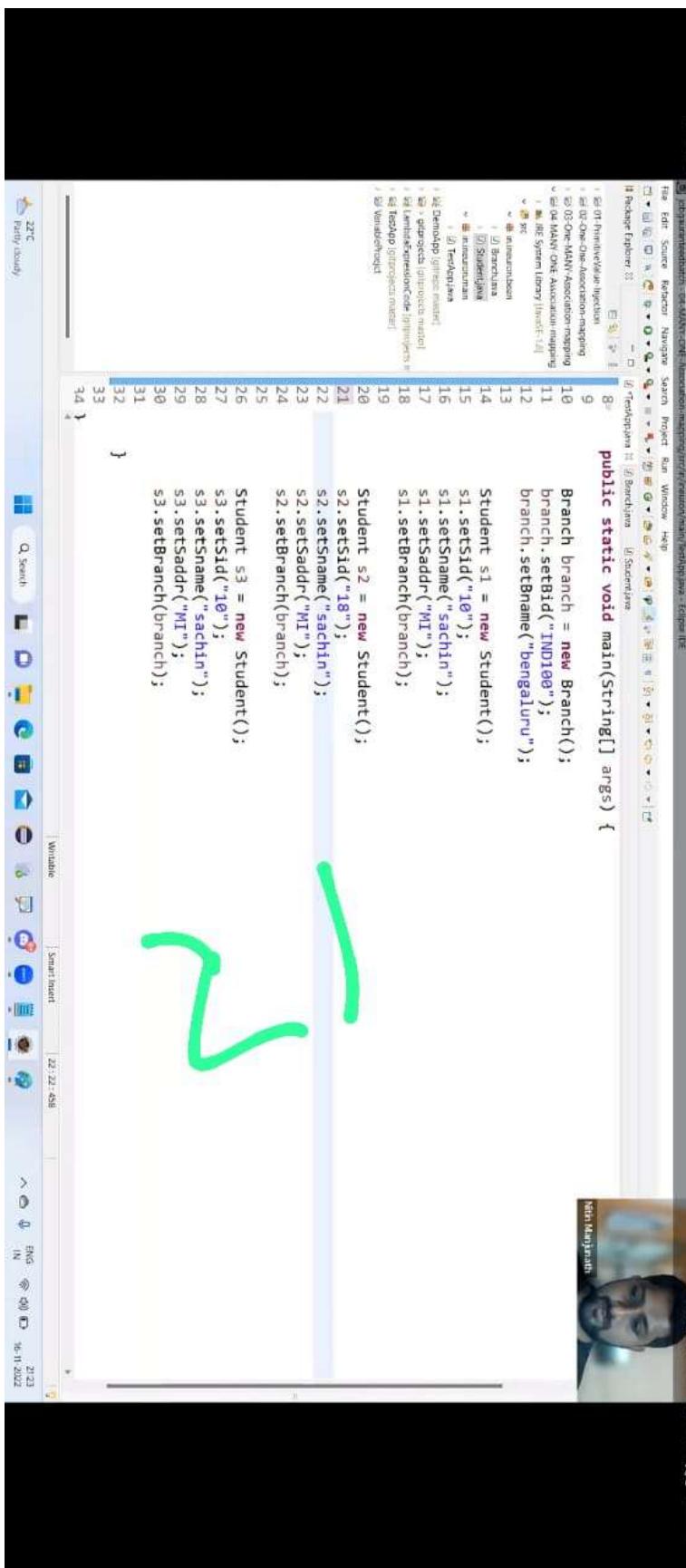
File Package Explorer Project Branches Student.java

1 // PrimitiveType Function
2 3 // One-Of-Association-mapping
3 4 // MANY ONE Association-mapping
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

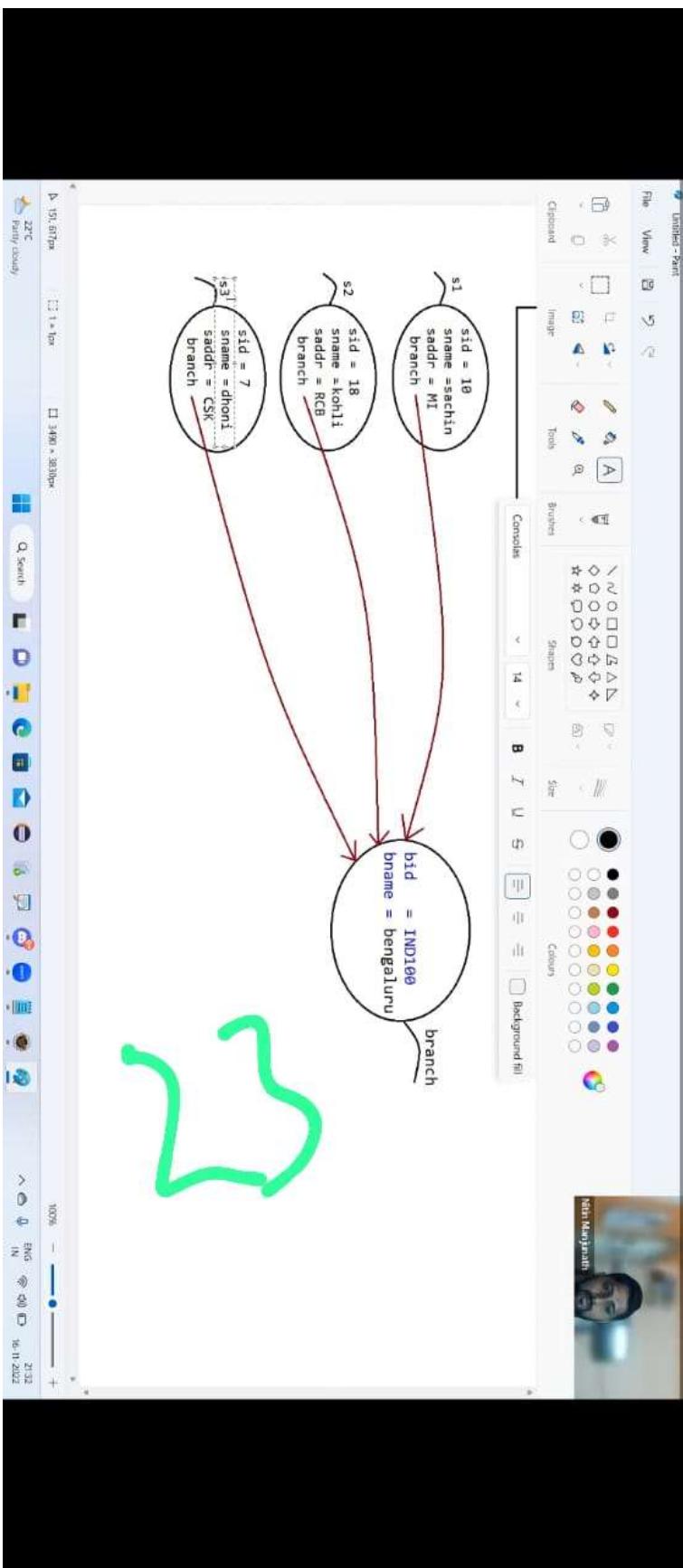
```
2 // Target Object
3 // Target Object
4 public class Student {
5     private String sid;
6     private String sname;
7     private String saddr;
8
9     // HAS-A variable
10    Branch branch;
11
12
13    public String getsid() {
14        return sid;
15    }
16
17    public void setsid(String sid) {
18        this.sid = sid;
19    }
20
21    public String getSname() {
22        return sname;
23    }
24
25    public void setsname(String sname) {
26        this.sname = sname;
27    }
}
```

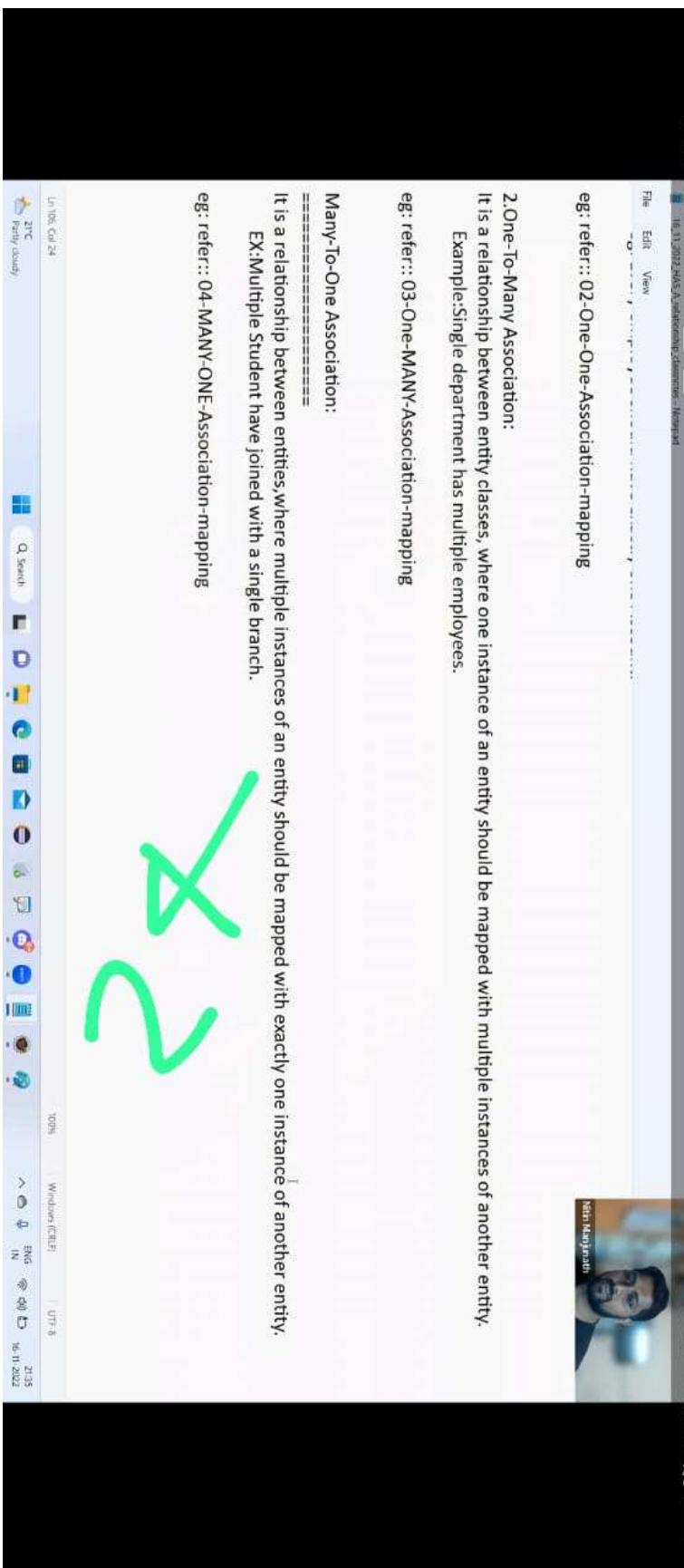
Nitin Majumdar

22°C Fully cloudy



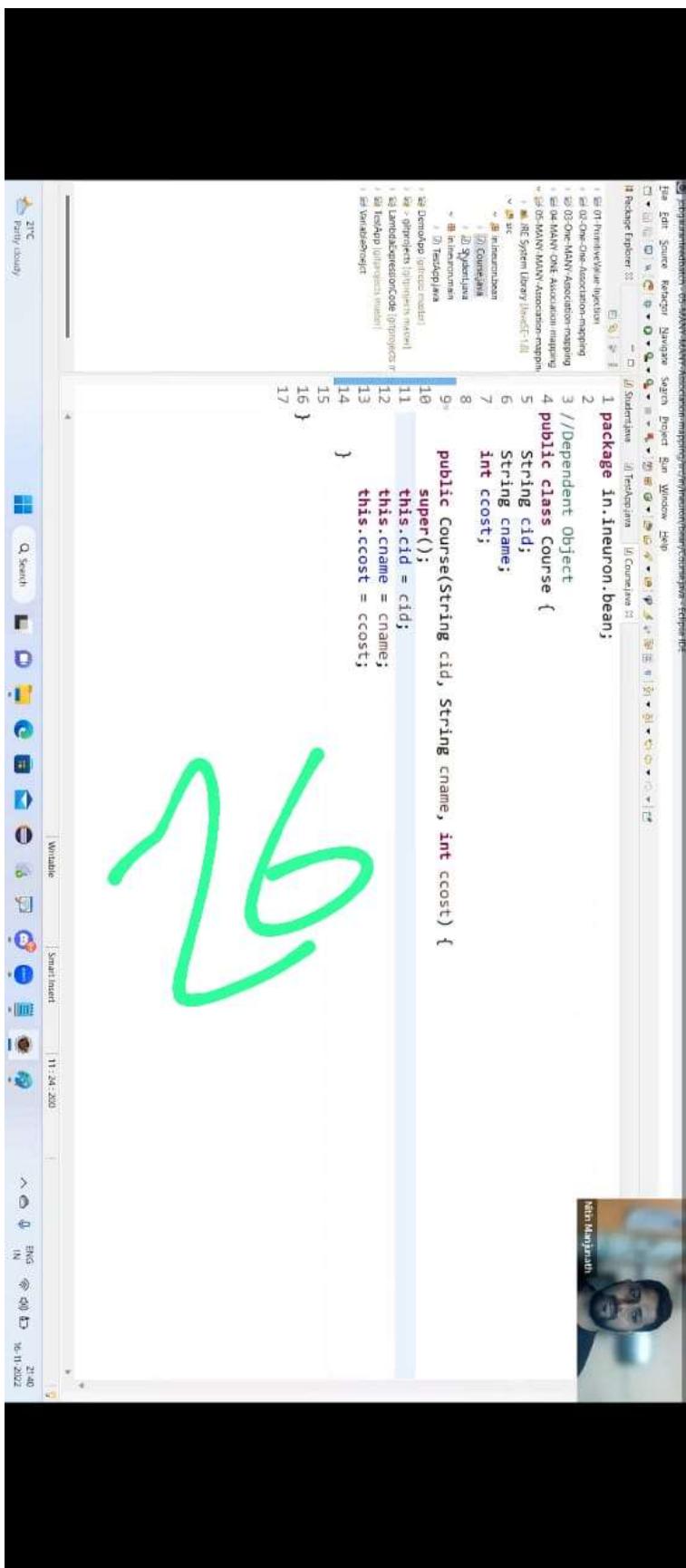
22





```
File Edit Source Refactor Navigate Search Project Run Window Help
File Explorer View Taskbar Search Project Run Window Help
1 // Package Explorer :: 2 Students :: [d TestOpinion] [d Course.java]
2 3 // Target Object
3 4 public class Student {
4 5
5 6     private String sid;
6 7     private String sname;
7 8     private String saddr;
8 9
9 10    // HAS-A variable
10 11    private Course[] course;
11 12
12 13    // Constructor Injection
13 14    public Student(String sid, String sname, String saddr, Course[] course) {
14 15        super();
15 16        this.sid = sid;
16 17        this.sname = sname;
17 18        this.saddr = saddr;
18 19        this.course = course;
19 20    }
20 21
21 22    public void getStudentDetails() {
22 23        System.out.println();
23 24        System.out.println("SID IS :: "+sid);
24 25        System.out.println("SNAME IS :: "+sname);
25 26        System.out.println("SADDR IS :: "+saddr);
26 27        System.out.println("COURSE DETAILS ARE:: ");
27 28    }
28 29
29
```

25



File Edit Source Refactor Navigate Search Project Run Window Help

File Fridge-Freighter ::

↳ 01-Primitive-value-Injection

↳ 02-Object-Association-mapping

↳ 03-One-MANY-Association-mapping

↳ 04-MANY-ONE-Association-mapping

↳ 05-0-N-Many-MANY-Association-mapping

↳ 06-IRE-system-Library [selected]

↳ 07-sic

↳ 08-Internship-been

↳ 09-Course

↳ 10-Student

↳ 11-Teacher

↳ 12-Assignment

↳ 13-Demolopj

↳ 14-Student

↳ 15-Course

↳ 16-course[0]

↳ 17-course[1]

↳ 18-course[2]

↳ 19-Student

↳ 20-Student

↳ 21-Student

↳ 22-s1.getStudentDetails();

↳ 23-s2.getStudentDetails();

↳ 24-s3.getStudentDetails();

↳ 25-TestApp

↳ 26-public class

↳ 27-}

↳ 28-}

↳ 29-}

↳ 30-}

import in.ineuron.bean.Student;

public class TestApp {

public static void main(String[] args) {

Course c1 = new Course("A11", "JAVA", 1000);

Course c2 = new Course("B11", "Python", 2000);

Course c3 = new Course("C11", "Blockchain", 3000);

course[] course = new Course[3];

course[0] = c1;

course[1] = c2;

course[2] = c3;

Student s1 = new Student("IND10", "sachin", "MI", course);

Student s2 = new Student("IND7", "dhoni", "CSK", course);

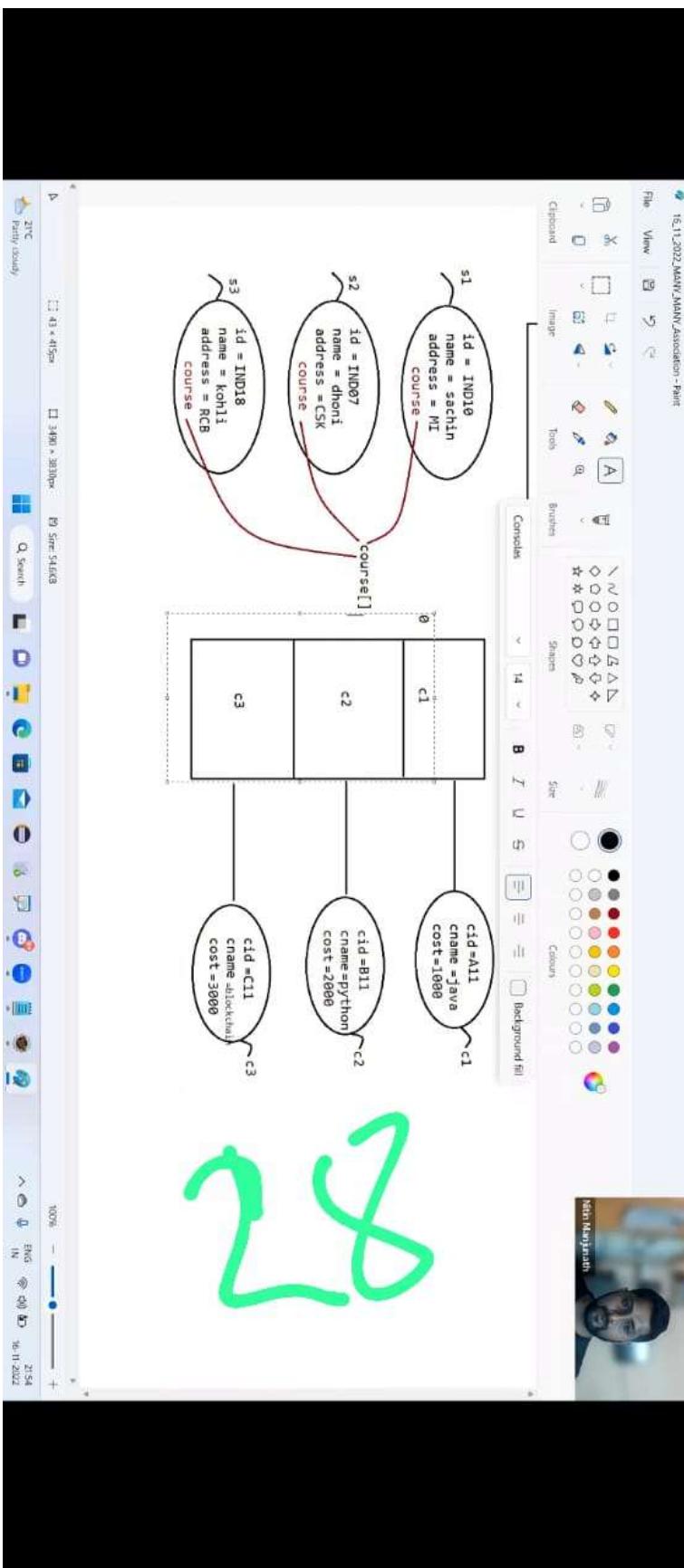
Student s3 = new Student("IND18", "kohli", "RCB", course);

s1.getStudentDetails();

s2.getStudentDetails();

s3.getStudentDetails();

27



```
File Edit View  
muun. sene wu maningU aigj1  
final int i1 = 1;  
final Integer i2 = 1;//memory will be decided at the runtime becoz it is wrapper class Object  
final String s1 = "ONE";
```

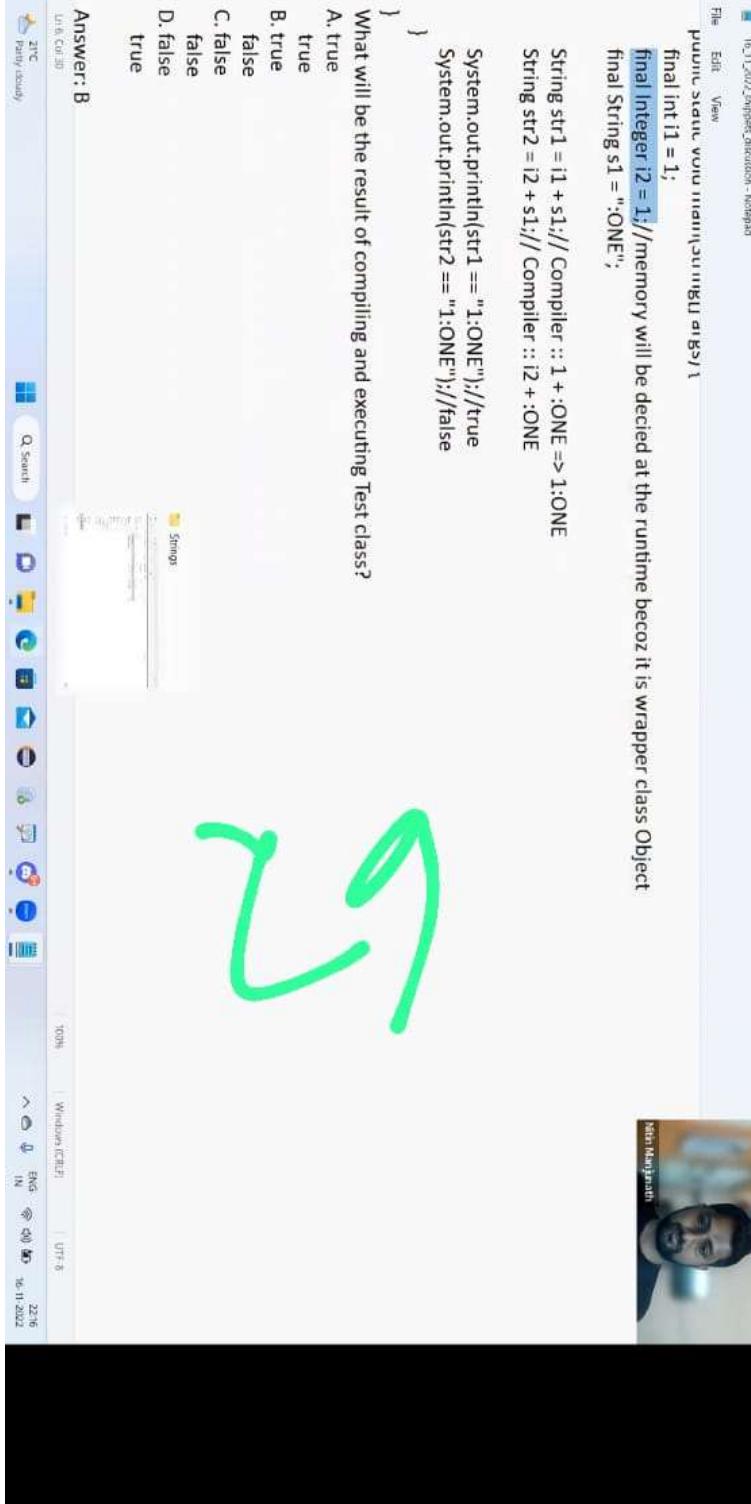
```
String str1 = i1 + s1; // Compiler :: i1 + :ONE => i1:ONE
String str2 = i2 + s1; // Compiler :: i2 + :ONE
}
}

System.out.println(str1 == "1:ONE"); // true
System.out.println(str2 == "1:ONE"); // false
```

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

- C. true
false

Answer: B



15.11.2022 snippet discussion - Notepad

File Edit View

O>

Consider below code:

```
//Test.java
public class Test {
    public static void main(String[] args) {
        String javaworld = "JavaWorld"/SCP
        String java = "Java"/SCP
        String world = "World"/SCP
        java += world; // VM => java+World => java = JavaWorld(heap area)
        System.out.println(java == javaworld);
    }
}
```

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

A. JavaWorld
B. Java
C. World
D. true
E. false

Answer: E

30

Nitin Marajpathi

15.11.2022 22:19

20°C Party (Sunday)

Q. Search

16.11.2022 snippet_discussion - Notepad

File Edit View

Q>

```
public class Test {
    public static void main(String[] args) {
        String s1 = "OCP";
        String s2 = "ocp";
        System.out.println(/*INSERT*/);
    }
}
```

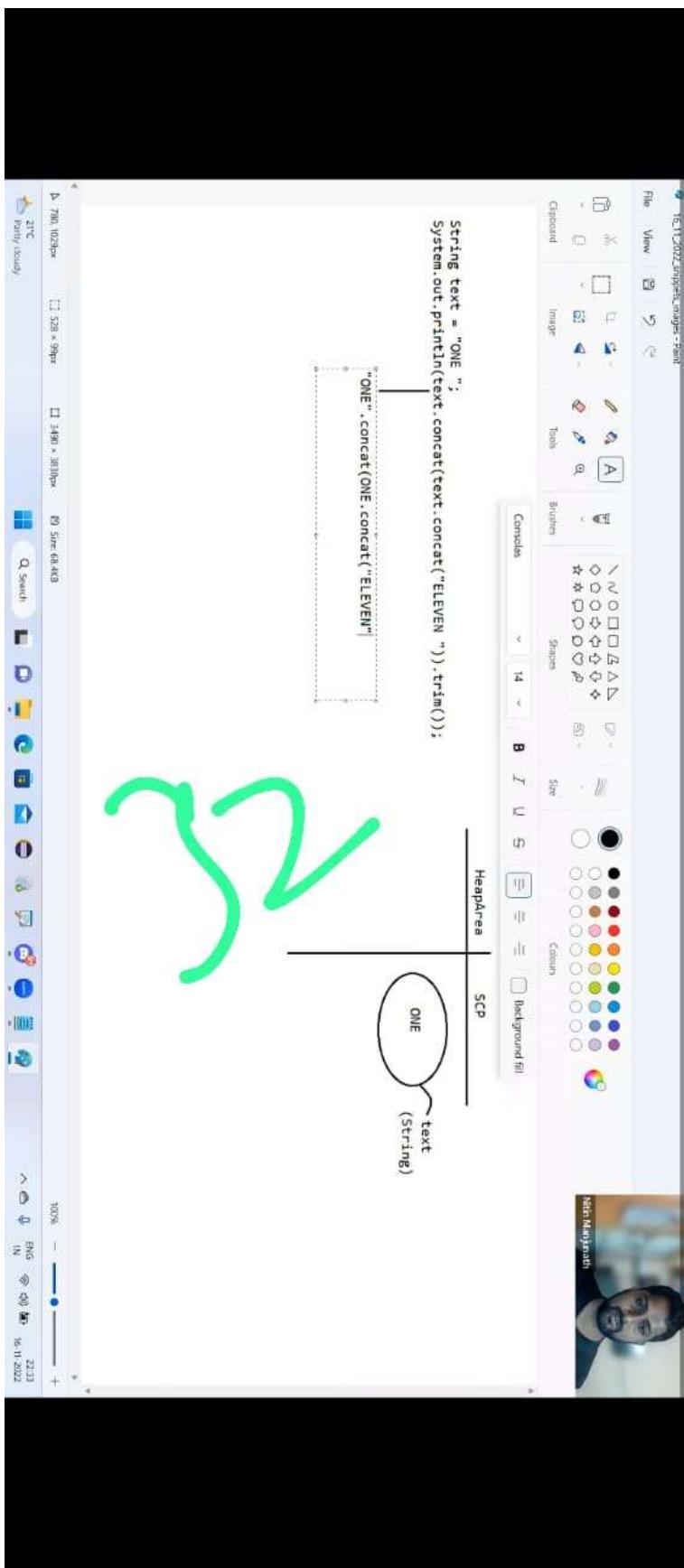
Which of the following options, if used to replace /*INSERT*/, will compile successfully and on execution will print true on to the console?

Select 2 options.

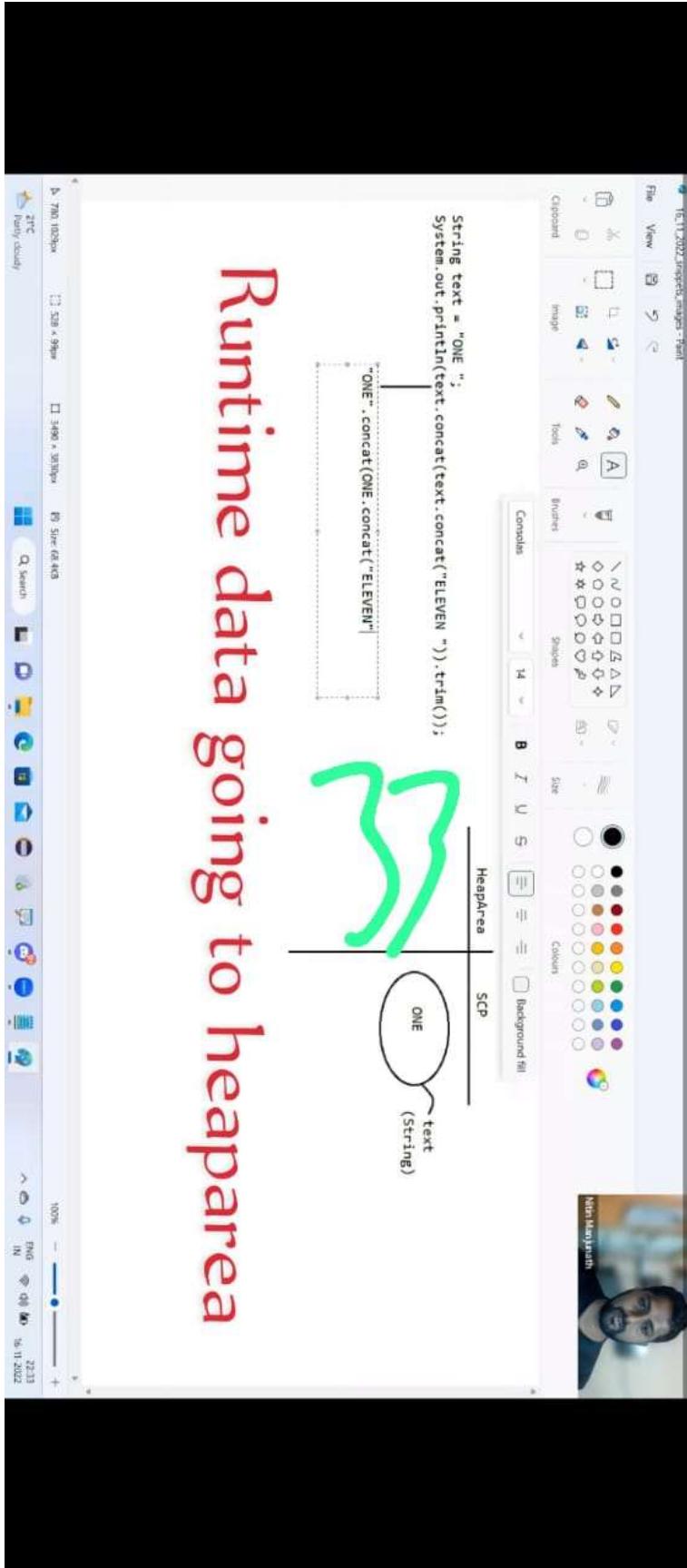
- A. s1.equals(s2)
- B. s1.equalsIgnoreCase(s2.toLowerCase())
- C. s1.equals(s1.toLowerCase())
- D. s1.length() == s2.length()
- E. s1.equalsIgnoreCase(s2)

Answer: D,E

3



Runtime data going to heap area



File Edit View

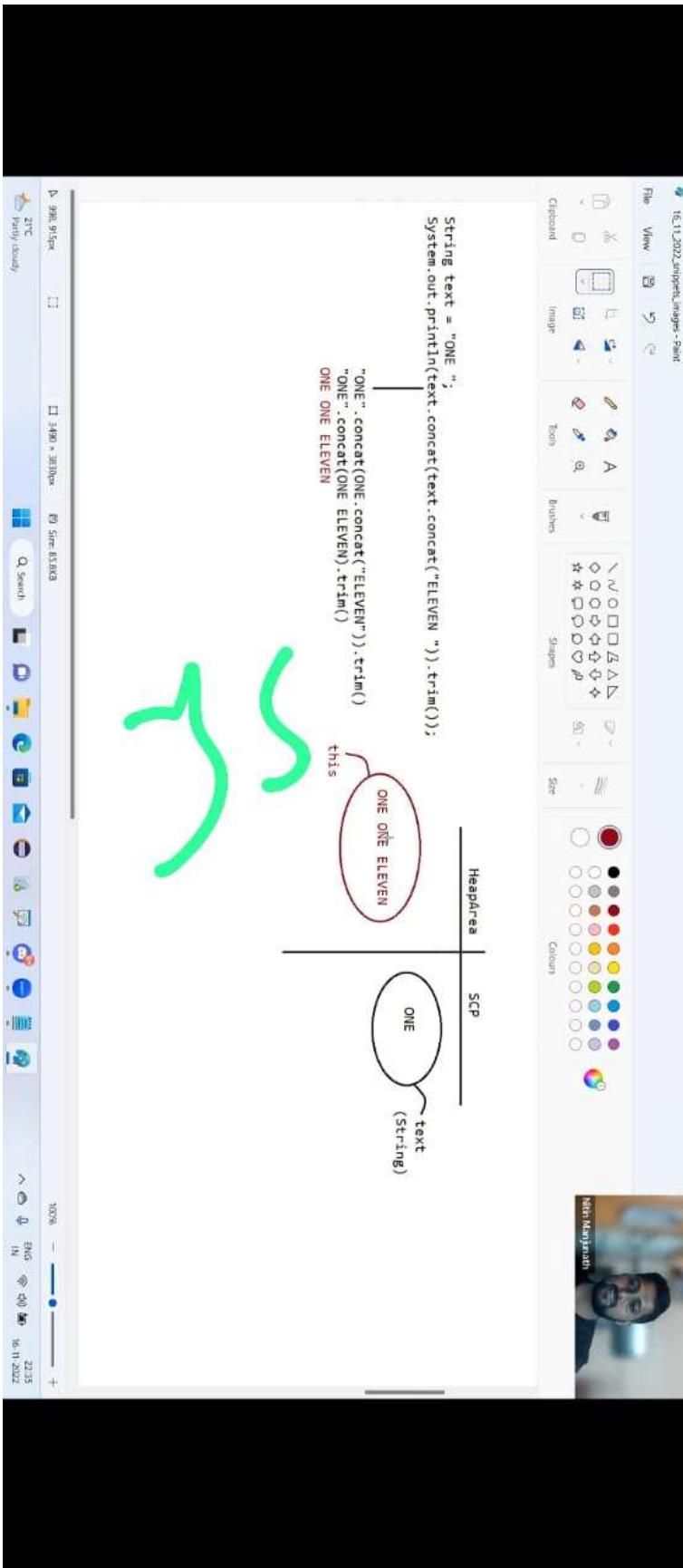
Consider below code of Test.java file:

```
    }  
}  
  
public static void main(String [] args){  
    String text = "ONE";  
    System.out.println(text.concat("ELEVEN ").trim());  
}
```

What will be the result of compiling and executing test class?

- B. ONE ONE ELEVEN
C. ONE ELEVEN ONE ELEVEN
D. ONE ELEVEN ONE

A whiteboard with handwritten green text "34 class?". Below the whiteboard, in the bottom right corner of the frame, is a small portrait of a man with dark hair and a beard, wearing a dark t-shirt. The portrait has a thin black border.



16.11.2022 snippets_discussion - Notepad
File Edit View
D. ONE ELEVEN ONE

Answer: B

Q>

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        String str = "PANIC";  
        StringBuilder sb = new StringBuilder("THEET");  
        System.out.println(str.replace("N", sb)); //Line n1  
    }  
}
```

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

- A. PATHETIC
- B. PANIC
- C. Line n1 causes compile time error
- D. Line n1 cause runtime error.

Answer: PATHETIC

20°C, Col 1
Partly cloudy



36

- File Edit View
C. Line n1 causes compile time error
D. Line n1 cause runtime error.

Answer: PATHETIC

Q>

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        boolean flag1 = "Java" == "Java".replace('j', 'j'); //Line n1  
        boolean flag2 = "Java" == "Java".replace("j", "j"); //Line n2  
        System.out.println(flag1 && flag2);  
    }  
}
```

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

- A. Line n1 causes compilation error.
- B. Line n2 causes compilation error.
- C. true
- D. false

Answer: C

16.11.2022 snippet discussion - Nitin Rath
20°C Party Study



100% Windows (CEP)

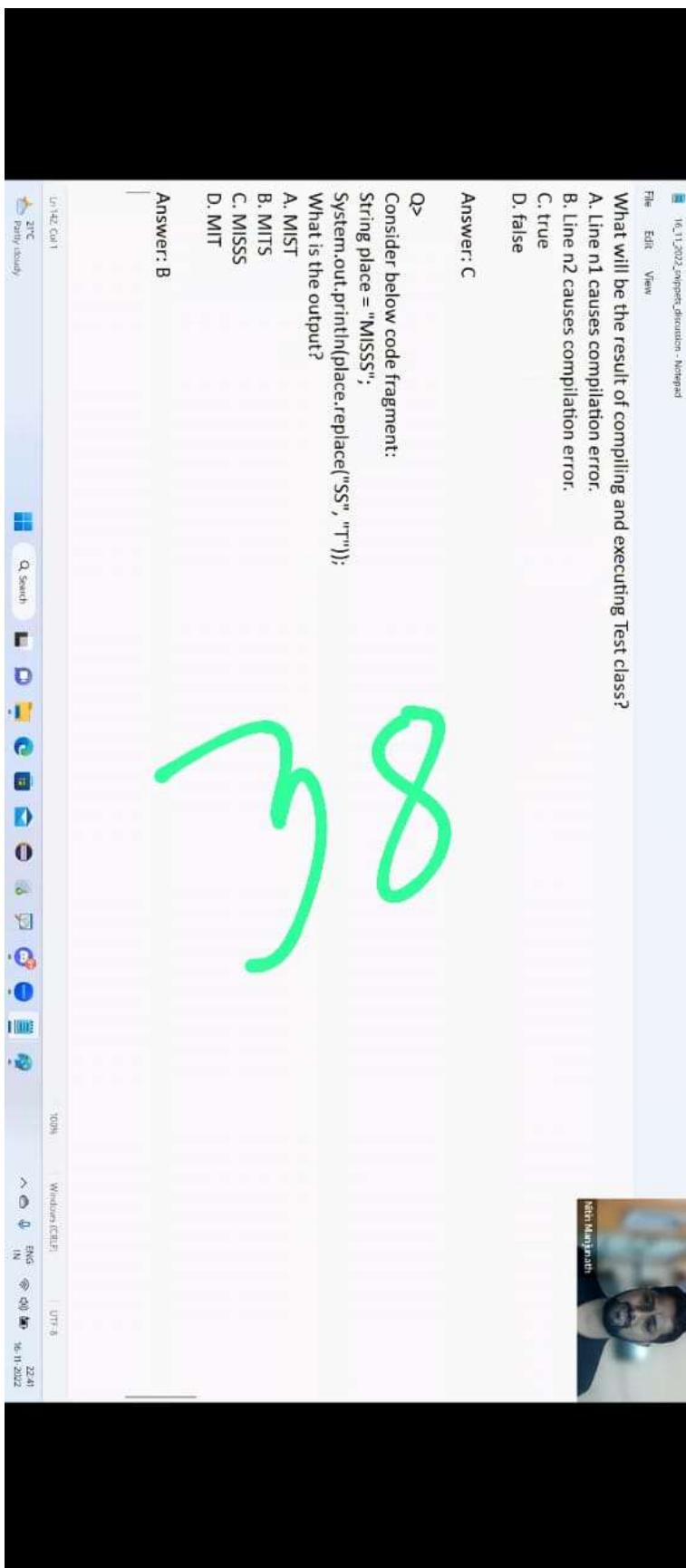
UTF-8

22:59

16.11.2022

37





File Edit View

Answer: B

Q3 Consider below code of Test.java file:

```
public class Test {
    public static void main(String[] args) {
        String str = "AlASKA";
        System.out.println(str.charAt(str.indexOf("A") + 1));
    }
}
```

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

- C. S
D. K
E. RuntimeError

Answer: L

File Edit View

Answer: B

```
Q>
public class Test {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("TOMATO");
        System.out.println(sb.reverse().replace("O", "A")); // Line n1
    }
}
```

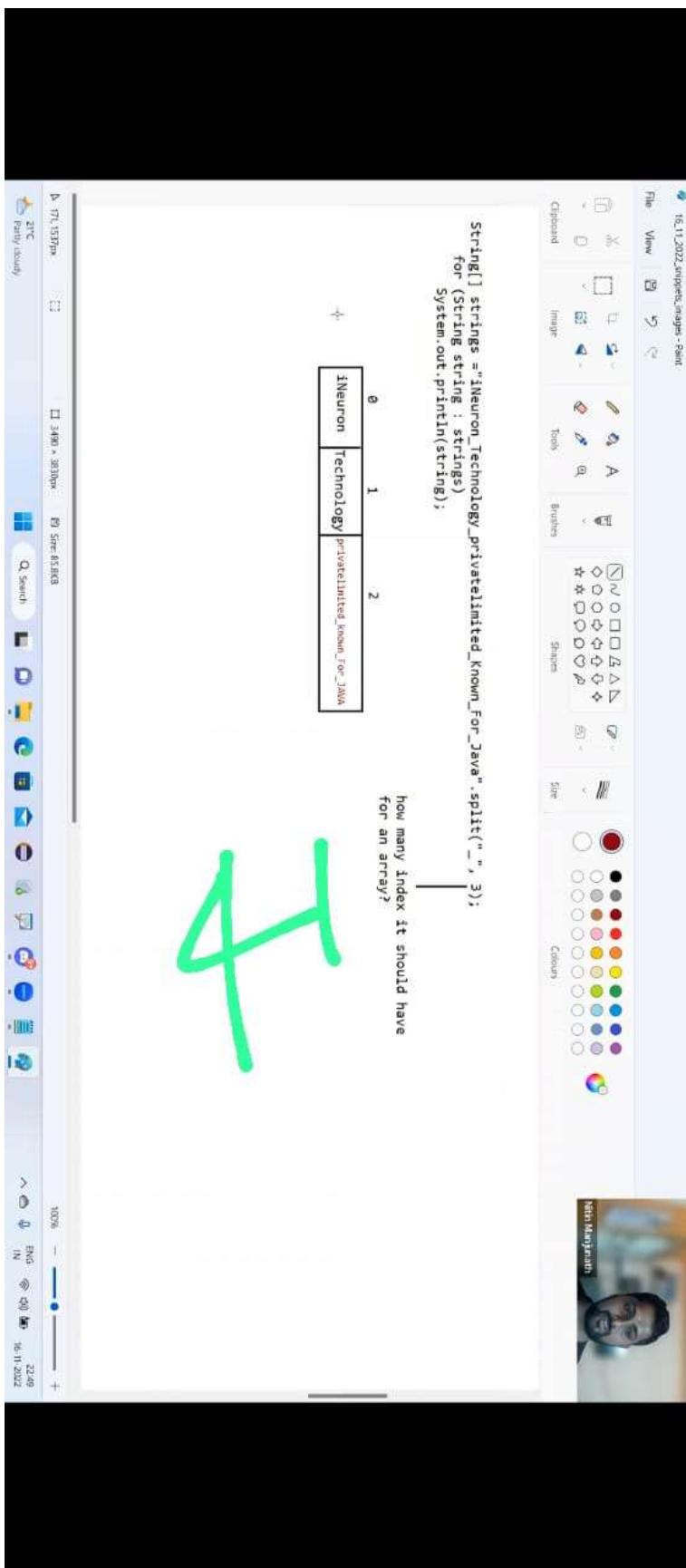
What will be the result of compiling and executing Test class?

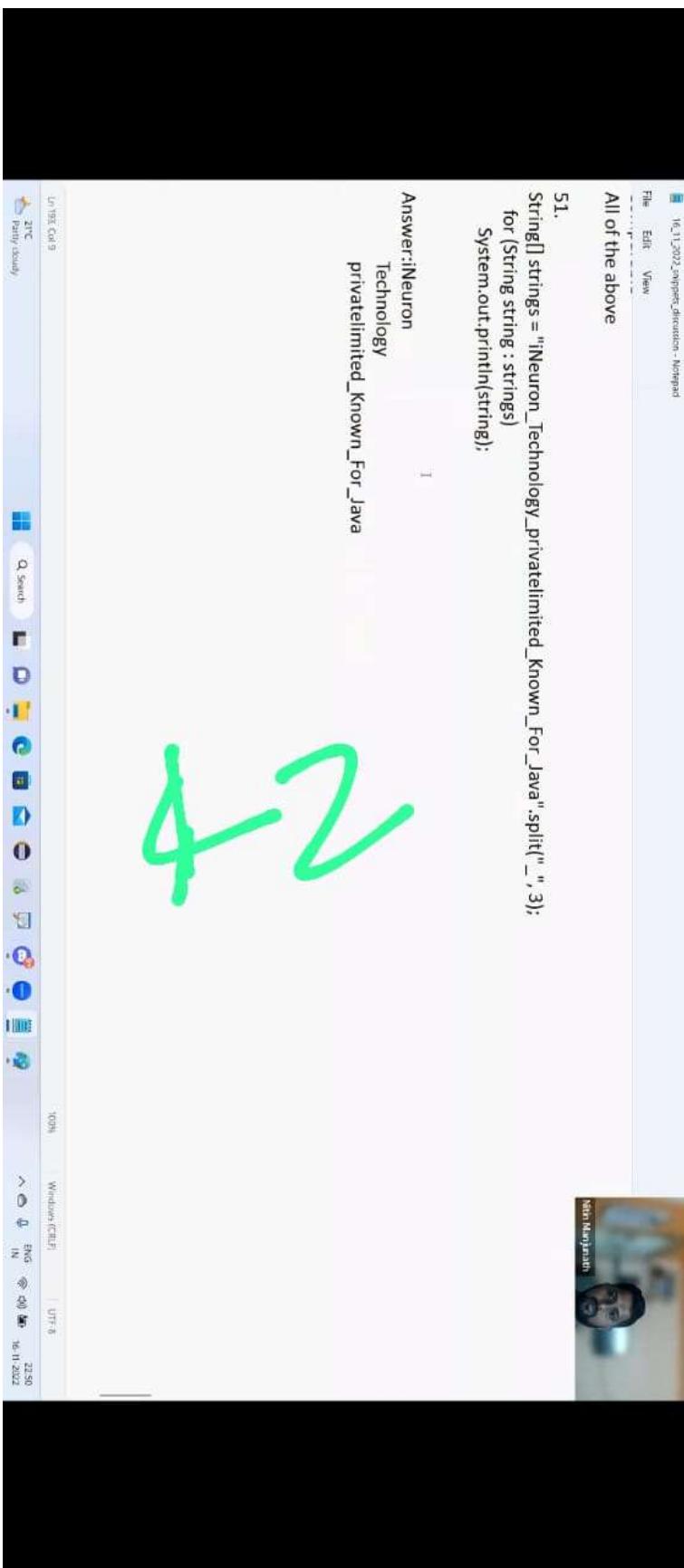
- B. TAMATO
 - C. TAMATA
 - D. OTAMOT
 - E. OTAMAT
 - F. ATAMAT
 - G. Compilation Error I

Answer: G

40







G. Compilation Error

Answer: G

Q> .

java.lang.String class implements which of the following interfaces?

Serializable
CharSequence
Comparable
All of the above

Answer: All the above

51.

```
String[] strings = "Neuron_Technology_privatelimited_Known_For_Java".split("_", 3);
for (String string : strings)
System.out.println(string);
```

Answer:jNeuron
Technology
privatelimited_Known_For_Java

43

The screenshot shows a video conference interface. At the top, there is a menu bar with 'File', 'Edit', 'View', and other options. Below the menu, the text 'G. Compilation Error' is displayed. To the right, there is a small video thumbnail of a person with the name 'Nitin Manjrekar' below it. The main area of the screen shows a list of participants with their names and small video thumbnails. The background of the slide features large green numbers '43'.