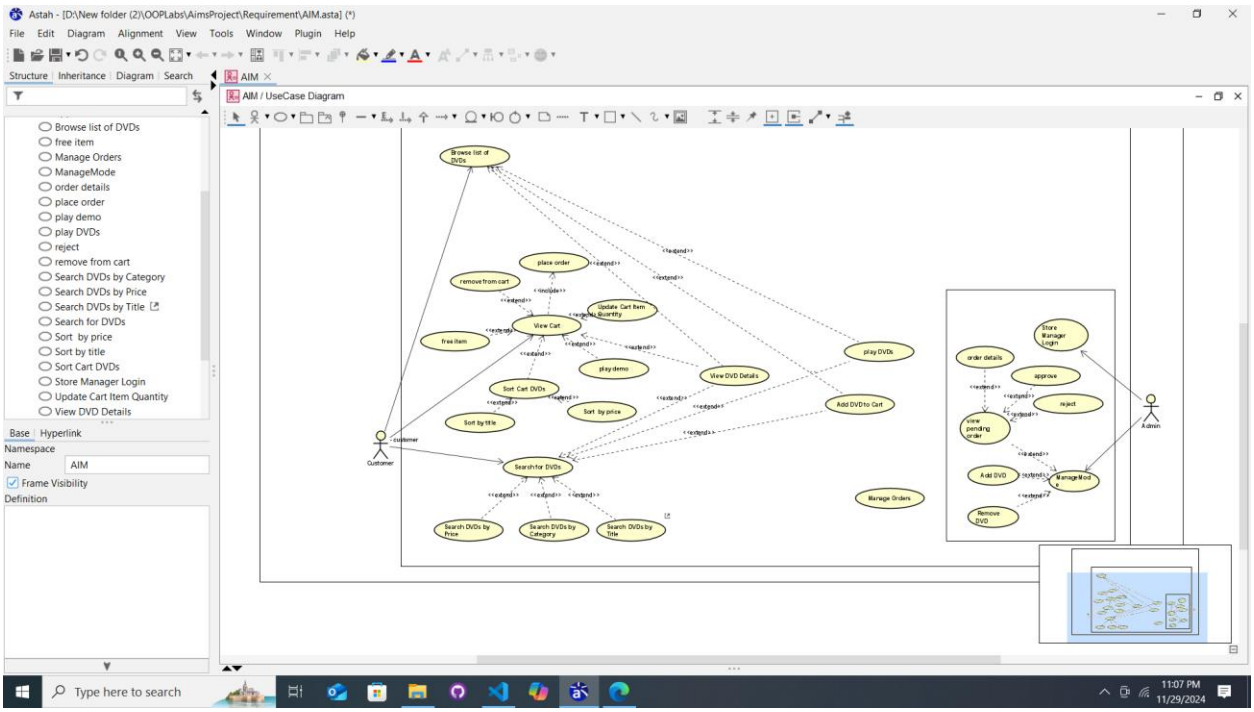
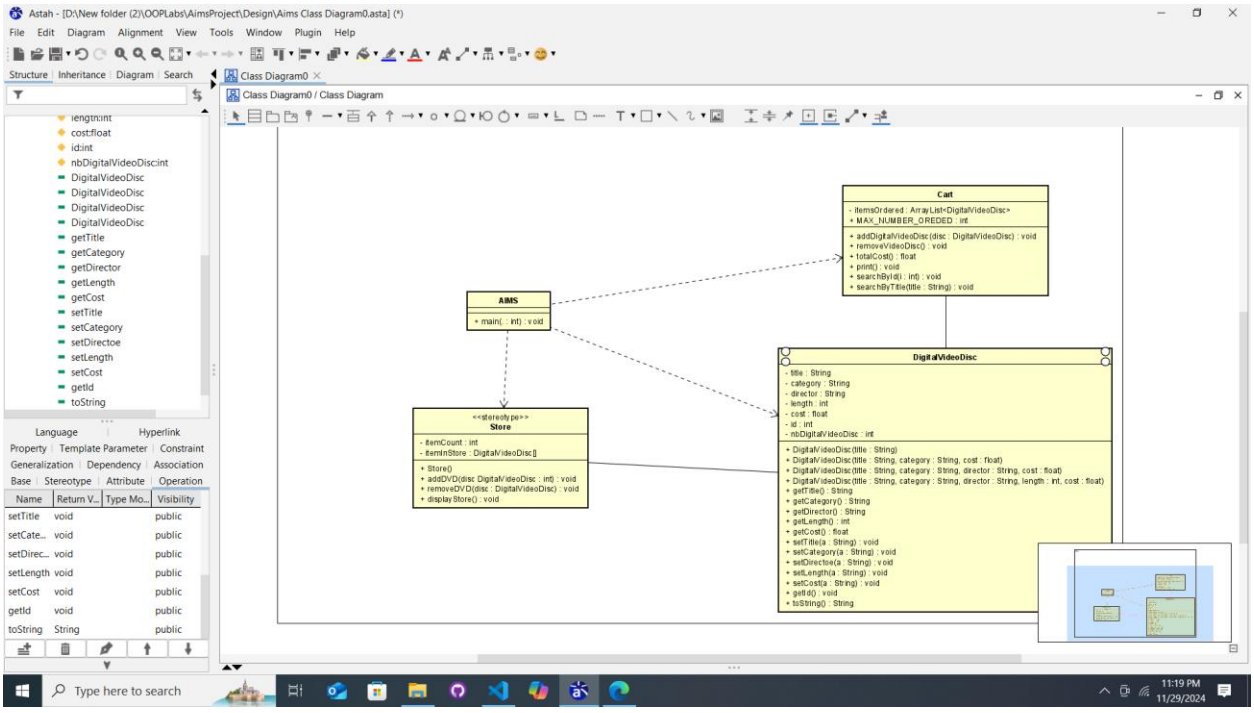
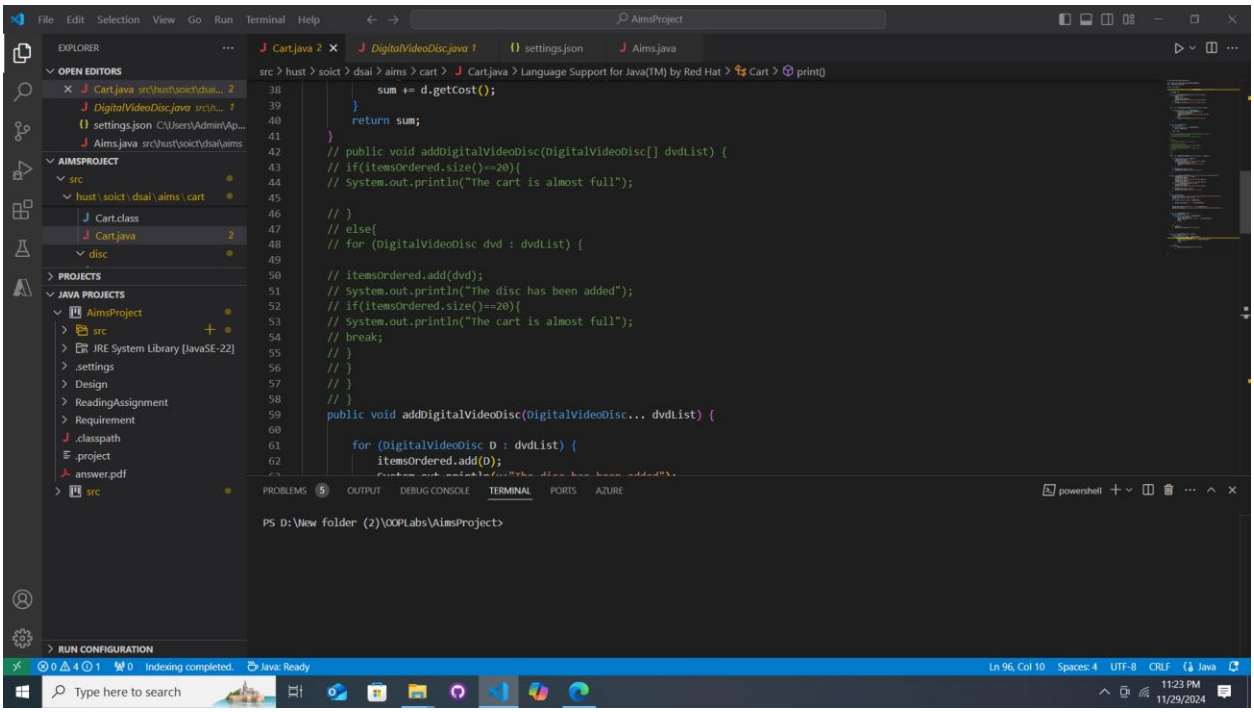
1. Update use-case diagram and class diagram

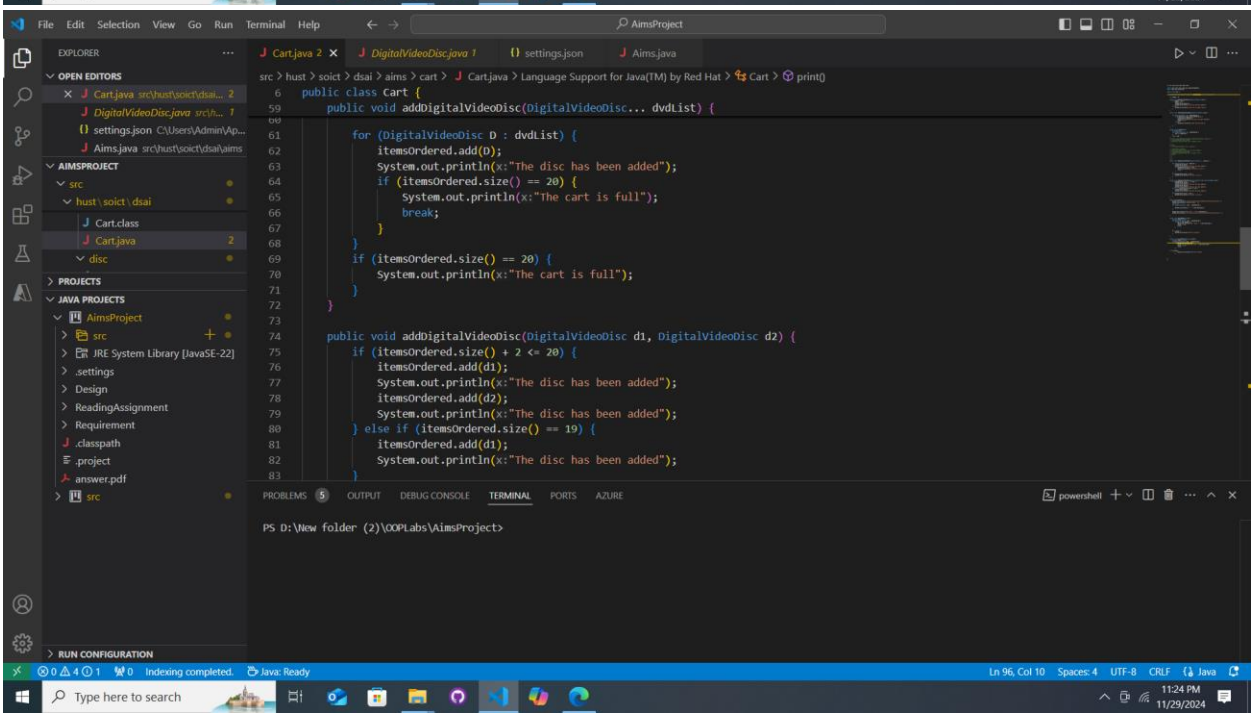




2.Working with the method overloading

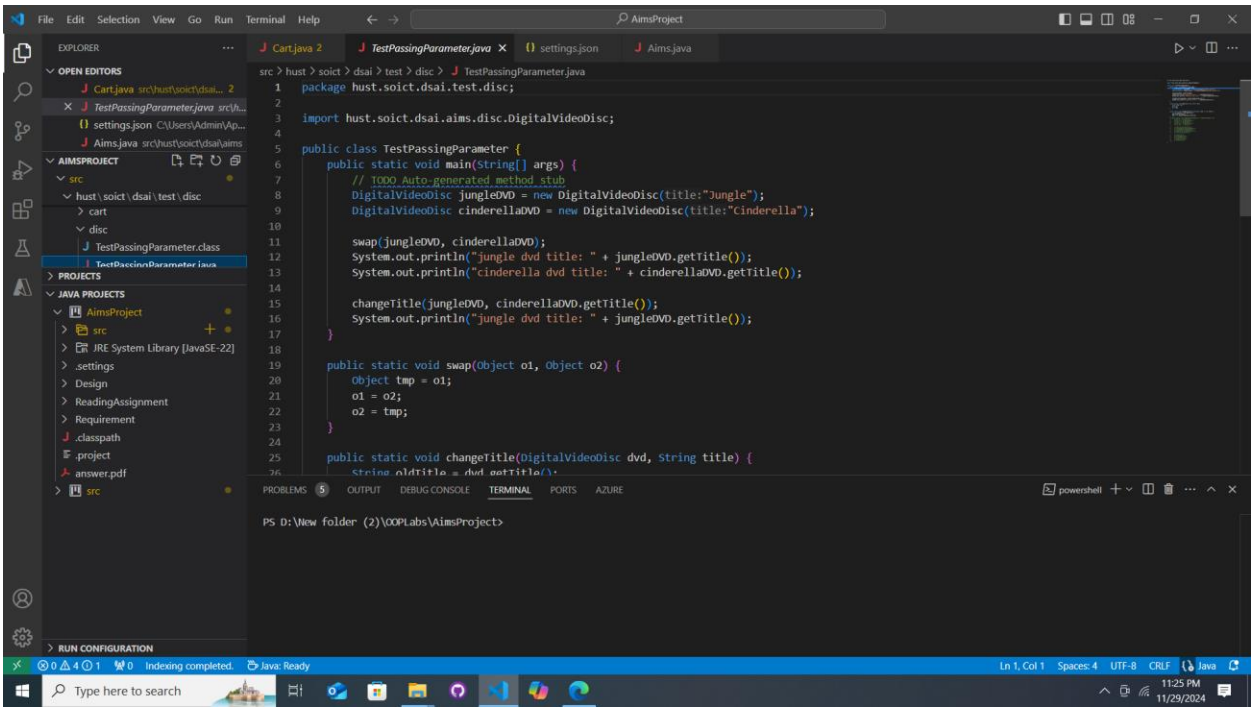
2.1

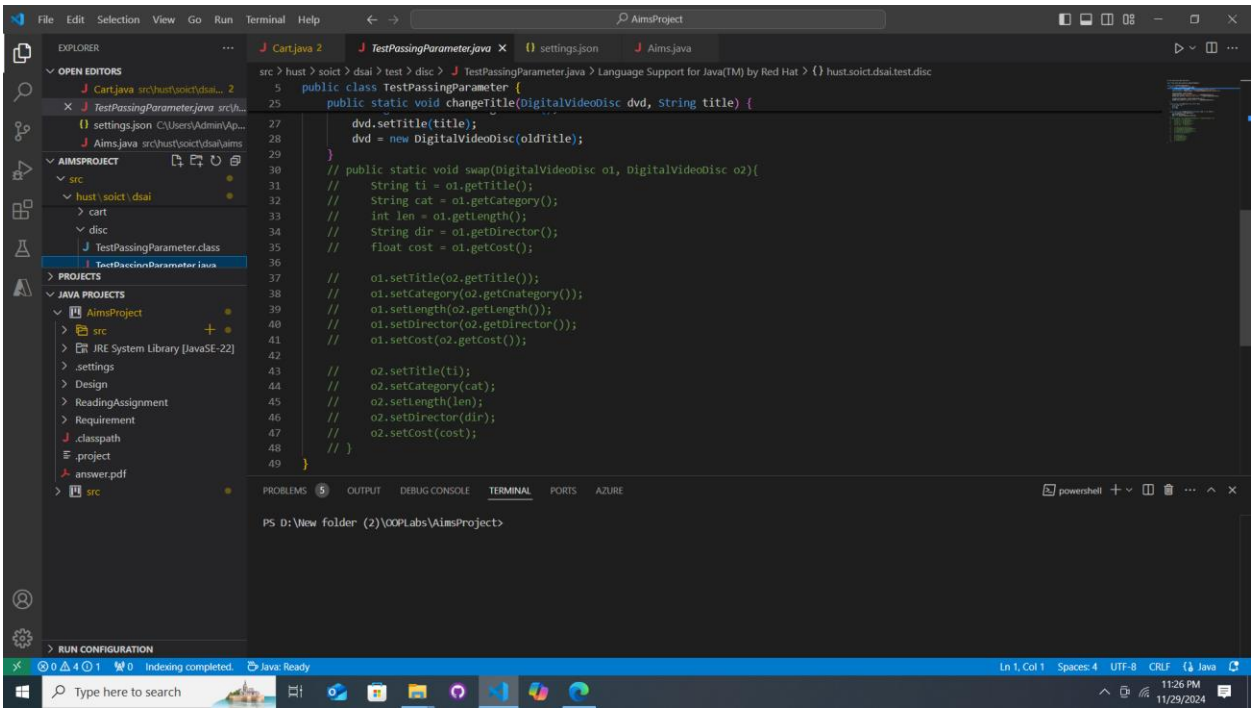




-I prefer the first one because it is familiar to me.

3.Passing parameter





- Question: ***Is JAVA a Pass by Value or a Pass by Reference programming language?***

Answer : pass by value

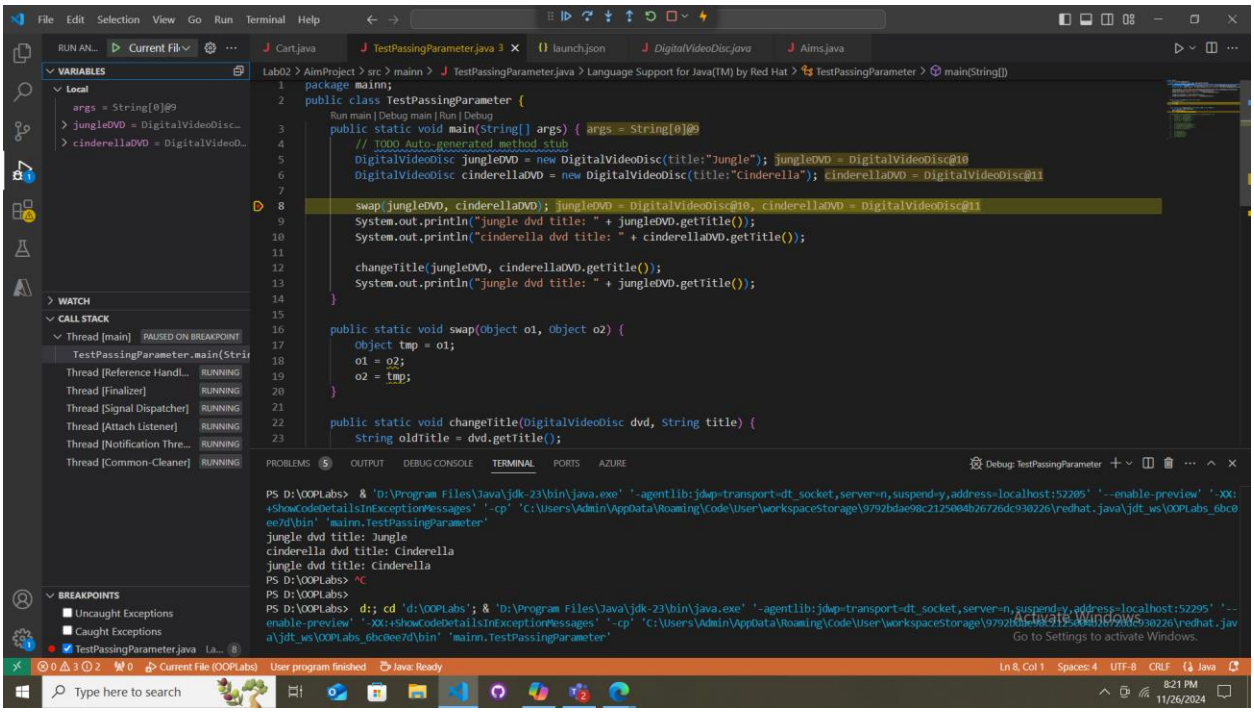
Questions:

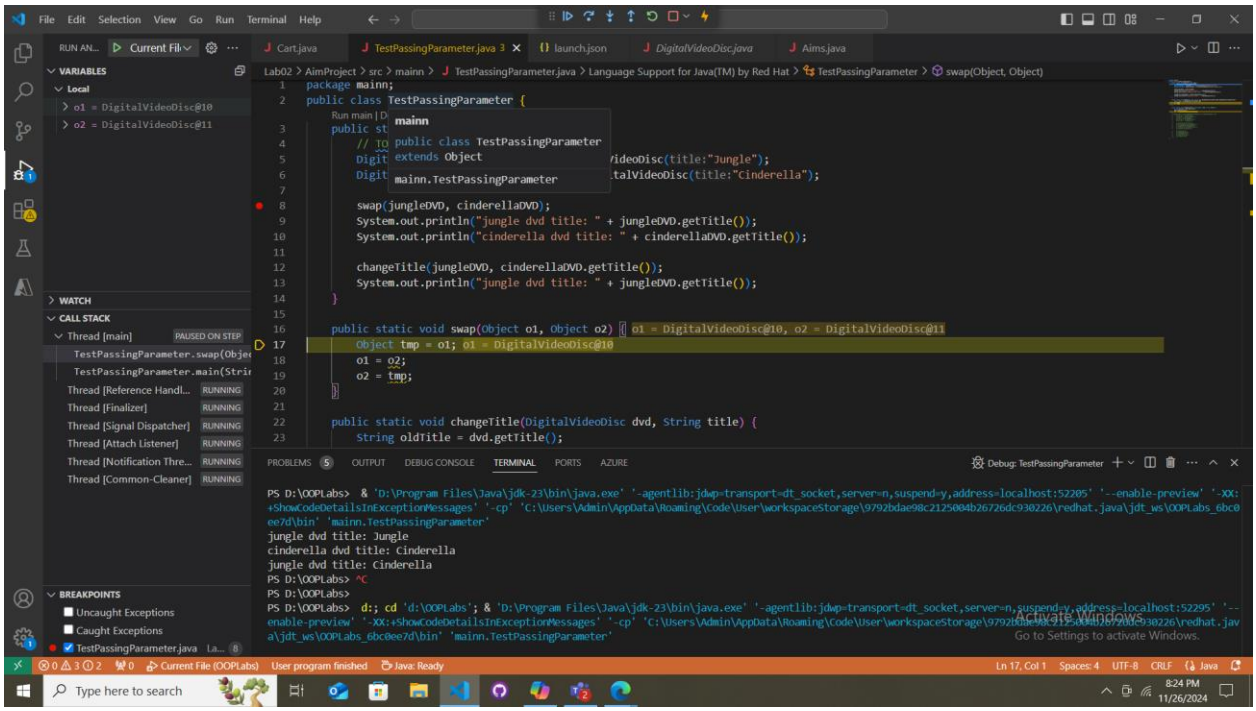
- After the call of **`swap(jungleDVD, cinderellaDVD)`** why does the title of these two objects still remain?

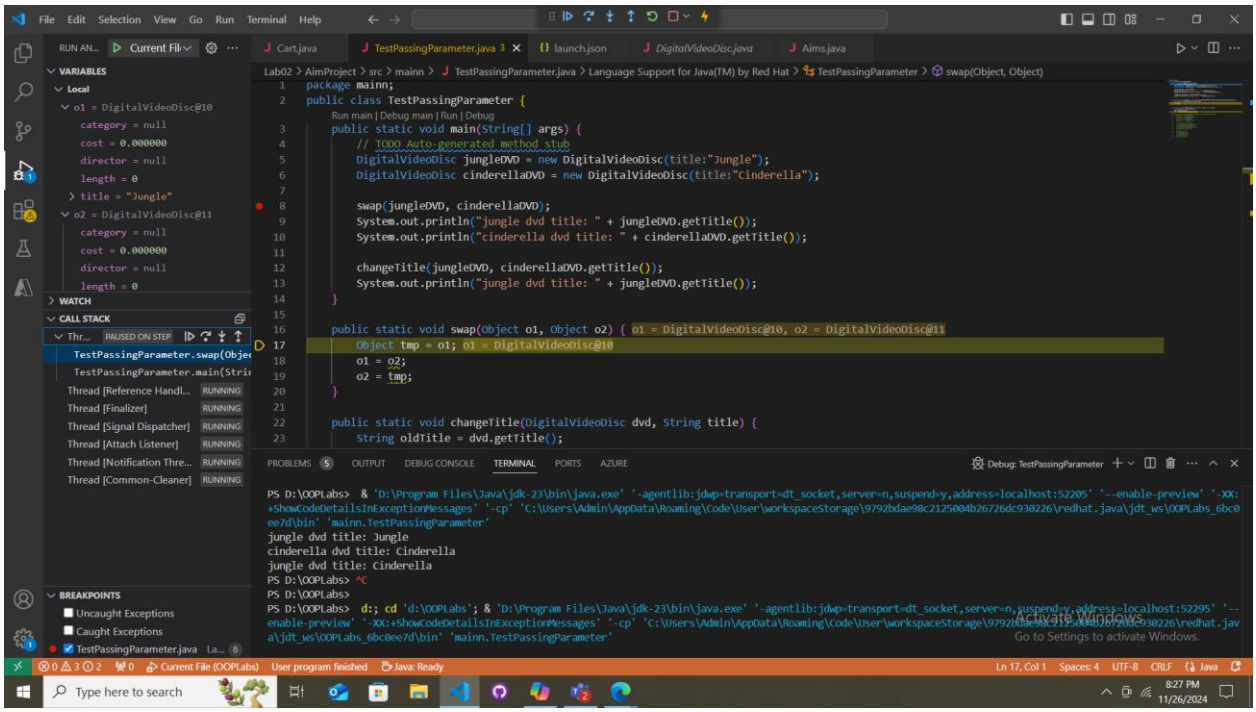
Answer: Java swaps local references within the method but does not affect the original references outside the method. Therefore, the titles remain unchanged.

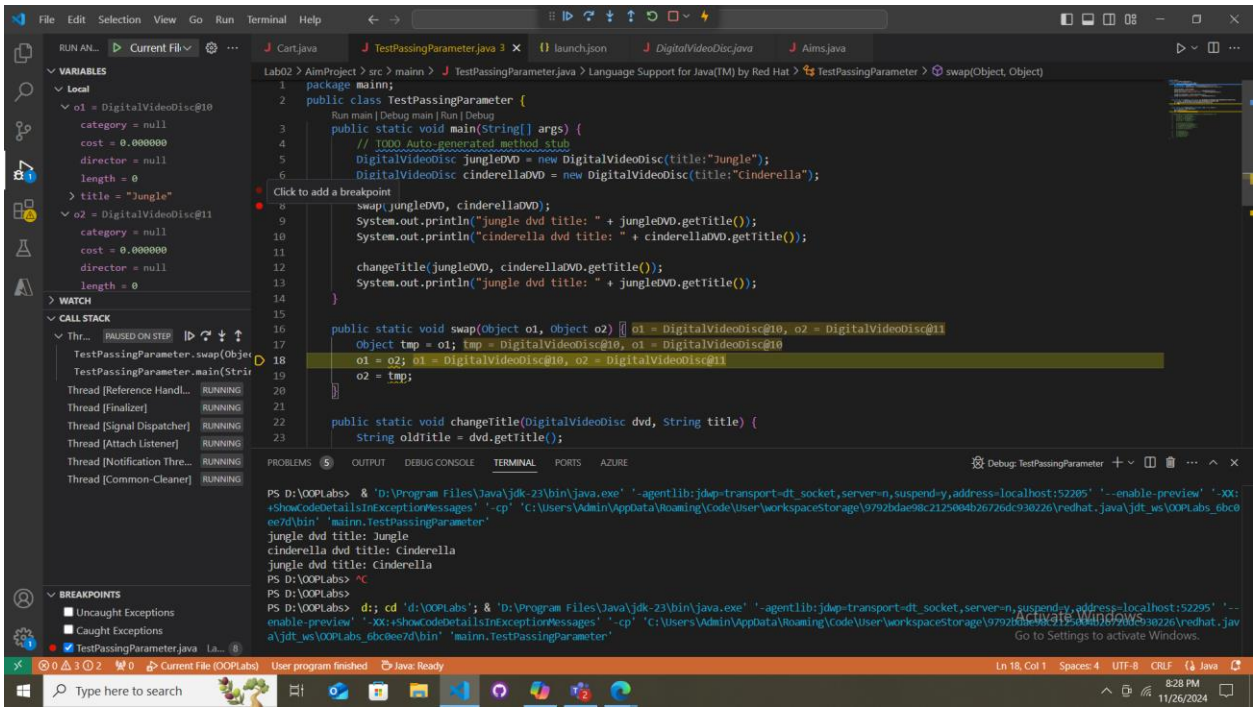
- After the call of `changeTitle(jungleDVD, cinderellaDVD.getTitle())` why is the title of the JungleDVD changed?
  Answer : The object reference points to the same memory location, so changes made to the object inside the method are visible outside the method.

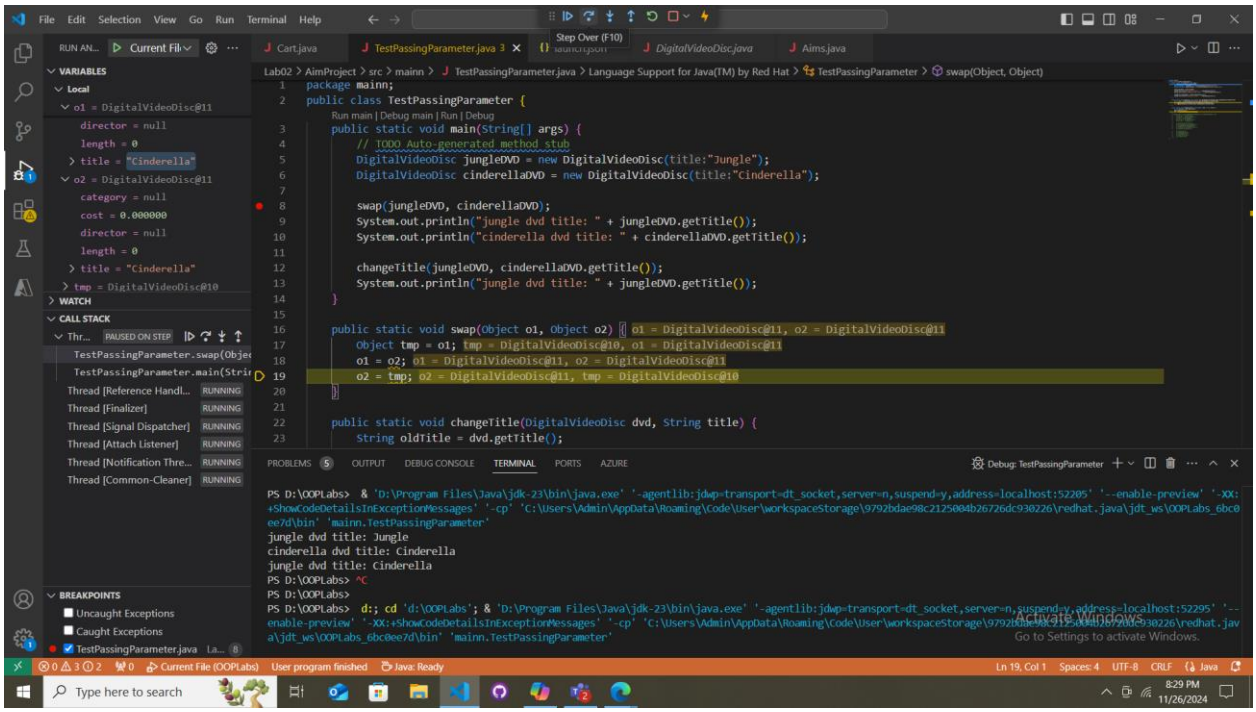
4.Use debug run




File Edit Selection View Go Run Terminal Help
Cart.java
TestPassingParameter.java 3
launch.json
DigitalVideoDisc.java
Aims.java
Lab02 > AimProject > src > mainn > TestPassingParameter.java > Language Support for Java(TM) by Red Hat > TestPassingParameter > swap(Object, Object)
package mainn;
public class TestPassingParameter {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
// TODO Auto-generated method stub
DigitalVideoDisc jungleDVD = new DigitalVideoDisc(title:"Jungle");
DigitalVideoDisc cinderellaDVD = new DigitalVideoDisc(title:"Cinderella");
swap(jungleDVD, cinderellaDVD);
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
System.out.println("cinderella dvd title: " + cinderellaDVD.getTitle());
changeTitle(jungleDVD, cinderellaDVD.getTitle());
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
}
public static void swap(Object o1, Object o2) { o1 = DigitalVideoDisc@10, o2 = DigitalVideoDisc@11
Object tmp = o1; o1 = DigitalVideoDisc@10
o1 = o2;
o2 = tmp;
}
public static void changeTitle(DigitalVideoDisc dvd, String title) {
String oldTitle = dvd.getTitle();
VARIABLES
Local
o1 = DigitalVideoDisc@10
o2 = DigitalVideoDisc@11
WATCH
CALL STACK
Thread [main] PAUSED ON STEP
TestPassingParameter.swap(Obje
TestPassingParameter.main(Strir
Thread [Reference Handl... RUNNING
Thread [Finalizer] RUNNING
Thread [Signal Dispatcher] RUNNING
Thread [Attach Listener] RUNNING
Thread [Notification Thre... RUNNING
Thread [Common-Cleaner] RUNNING
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
PROBLEMS 5
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52205' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
jungle dvd title: Jungle
cinderella dvd title: Cinderella
jungle dvd title: Cinderella
PS D:\OOPLabs> ^C
PS D:\OOPLabs>
PS D:\OOPLabs> d:; cd 'd:\OOPLabs'; & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52295' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
Activate Windows
Go to Settings to activate Windows.
Current File (OOPLabs)
User program finished
Java: Ready
Ln 17, Col 1
Spaces: 4
UTF-8
CRLF
Java
Type here to search
8:24 PM
11/26/2024


File Edit Selection View Go Run Terminal Help
Cart.java
TestPassingParameter.java 3
launch.json
DigitalVideoDisc.java
Aims.java
Lab02 > AimProject > src > mainn > TestPassingParameter.java > Language Support for Java(TM) by Red Hat > TestPassingParameter > swap(Object, Object)
package mainn;
public class TestPassingParameter {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
// TODO Auto-generated method stub
DigitalVideoDisc jungleDVD = new DigitalVideoDisc(title:"Jungle");
DigitalVideoDisc cinderellaDVD = new DigitalVideoDisc(title:"Cinderella");
swap(jungleDVD, cinderellaDVD);
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
System.out.println("cinderella dvd title: " + cinderellaDVD.getTitle());
changeTitle(jungleDVD, cinderellaDVD.getTitle());
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
}
public static void swap(Object o1, Object o2) { o1 = DigitalVideoDisc@10, o2 = DigitalVideoDisc@11
Object tmp = o1; o1 = DigitalVideoDisc@10
o1 = o2;
o2 = tmp;
}
public static void changeTitle(DigitalVideoDisc dvd, String title) {
String oldTitle = dvd.getTitle();
VARIABLES
Local
o1 = DigitalVideoDisc@10
category = null
cost = 0.000000
director = null
length = 0
title = "Jungle"
o2 = DigitalVideoDisc@11
category = null
cost = 0.000000
director = null
length = 0
WATCH
CALL STACK
Thr... PAUSED ON STEP
TestPassingParameter.swap(Obje
TestPassingParameter.main(Strir
Thread [Reference Handl... RUNNING
Thread [Finalizer] RUNNING
Thread [Signal Dispatcher] RUNNING
Thread [Attach Listener] RUNNING
Thread [Notification Thre... RUNNING
Thread [Common-Cleaner] RUNNING
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
PROBLEMS 5
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52205' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
jungle dvd title: Jungle
cinderella dvd title: Cinderella
jungle dvd title: Cinderella
PS D:\OOPLabs> ^C
PS D:\OOPLabs>
PS D:\OOPLabs> d:; cd 'd:\OOPLabs'; & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52295' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
Activate Windows
Go to Settings to activate Windows.
Current File (OOPLabs)
User program finished
Java: Ready
Ln 17, Col 1
Spaces: 4
UTF-8
CRLF
Java
Type here to search
8:27 PM
11/26/2024


File Edit Selection View Go Run Terminal Help
Cart.java
TestPassingParameter.java 3
launch.json
DigitalVideoDisc.java
Aims.java
Lab02 > AimProject > src > mainn > TestPassingParameter.java > Language Support for Java(TM) by Red Hat > TestPassingParameter > swap(Object, Object)
package mainn;
public class TestPassingParameter {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
// TODO Auto-generated method stub
DigitalVideoDisc jungleDVD = new DigitalVideoDisc(title:"Jungle");
DigitalVideoDisc cinderellaDVD = new DigitalVideoDisc(title:"Cinderella");
Click to add a breakpoint
swap(jungleDVD, cinderellaDVD);
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
System.out.println("cinderella dvd title: " + cinderellaDVD.getTitle());
changeTitle(jungleDVD, cinderellaDVD.getTitle());
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
public static void swap(Object o1, Object o2) { o1 = DigitalVideoDisc@10, o2 = DigitalVideoDisc@11
Object tmp = o1; tmp = DigitalVideoDisc@10, o1 = DigitalVideoDisc@10
o1 = o2; o1 = DigitalVideoDisc@10, o2 = DigitalVideoDisc@11
o2 = tmp;
public static void changeTitle(DigitalVideoDisc dvd, String title) {
String oldTitle = dvd.getTitle();
VARIABLES
Local
o1 = DigitalVideoDisc@10
category = null
cost = 0.000000
director = null
length = 0
title = "Jungle"
o2 = DigitalVideoDisc@11
category = null
cost = 0.000000
director = null
length = 0
WATCH
CALL STACK
PAUSED ON STEP
TestPassingParameter.swap(Obje
TestPassingParameter.main(Strir
Thread [Reference Handl... RUNNING
Thread [Finalizer] RUNNING
Thread [Signal Dispatcher] RUNNING
Thread [Attach Listener] RUNNING
Thread [Notification Thre... RUNNING
Thread [Common-Cleaner] RUNNING
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
PROBLEMS 5
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52205' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
jungle dvd title: Jungle
cinderella dvd title: Cinderella
jungle dvd title: Cinderella
PS D:\OOPLabs> ^C
PS D:\OOPLabs>
PS D:\OOPLabs> d:; cd 'd:\OOPLabs'; & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52295' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
Activate Windows
Go to Settings to activate Windows.
Current File (OOPLabs)
User program finished
Java: Ready
Ln 18, Col 1
Spaces: 4
UTF-8
CRLF
Java
Type here to search
8:28 PM
11/26/2024


File Edit Selection View Go Run Terminal Help
Step Over (F10)
Cart.java
TestPassingParameter.java 3
DigitalVideoDisc.java
Aims.java
Lab02 > AimProject > src > mainn > TestPassingParameter.java > Language Support for Java(TM) by Red Hat > TestPassingParameter > swap(Object, Object)
package mainn;
public class TestPassingParameter {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
// TODO Auto-generated method stub
DigitalVideoDisc jungleDVD = new DigitalVideoDisc(title:"Jungle");
DigitalVideoDisc cinderellaDVD = new DigitalVideoDisc(title:"Cinderella");
swap(jungleDVD, cinderellaDVD);
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
System.out.println("cinderella dvd title: " + cinderellaDVD.getTitle());
changeTitle(jungleDVD, cinderellaDVD.getTitle());
System.out.println("jungle dvd title: " + jungleDVD.getTitle());
public static void swap(Object o1, Object o2) { o1 = DigitalVideoDisc@11, o2 = DigitalVideoDisc@11
Object tmp = o1; tmp = DigitalVideoDisc@10, o1 = DigitalVideoDisc@11
o1 = o2; o1 = DigitalVideoDisc@11, o2 = DigitalVideoDisc@11
o2 = tmp; o2 = DigitalVideoDisc@11, tmp = DigitalVideoDisc@10
public static void changeTitle(DigitalVideoDisc dvd, String title) {
String oldTitle = dvd.getTitle();
VARIABLES
Local
o1 = DigitalVideoDisc@11
director = null
length = 0
title = "Cinderella"
o2 = DigitalVideoDisc@11
category = null
cost = 0.000000
director = null
length = 0
title = "Cinderella"
tmp = DigitalVideoDisc@10
WATCH
CALL STACK
PAUSED ON STEP
TestPassingParameter.swap(Obje
TestPassingParameter.main(Strir
Thread [Reference Handl... RUNNING
Thread [Finalizer] RUNNING
Thread [Signal Dispatcher] RUNNING
Thread [Attach Listener] RUNNING
Thread [Notification Thre... RUNNING
Thread [Common-Cleaner] RUNNING
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
PROBLEMS 5
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52205' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
jungle dvd title: Jungle
cinderella dvd title: Cinderella
jungle dvd title: Cinderella
PS D:\OOPLabs> ^C
PS D:\OOPLabs>
PS D:\OOPLabs> d:; cd 'd:\OOPLabs'; & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:52295' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Admin\AppData\Roaming\Code\User\workspaceStorage\9792bdae98c2125004b26726dc930226\redhat.java\jdt_ws\OOPLabs_6bc0ee7d\bin' 'mainn.TestPassingParameter'
Activate Windows
Go to Settings to activate Windows.
Current File (OOPLabs)
User program finished
Java: Ready
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Spaces: 4
UTF-8
CRLF
Java
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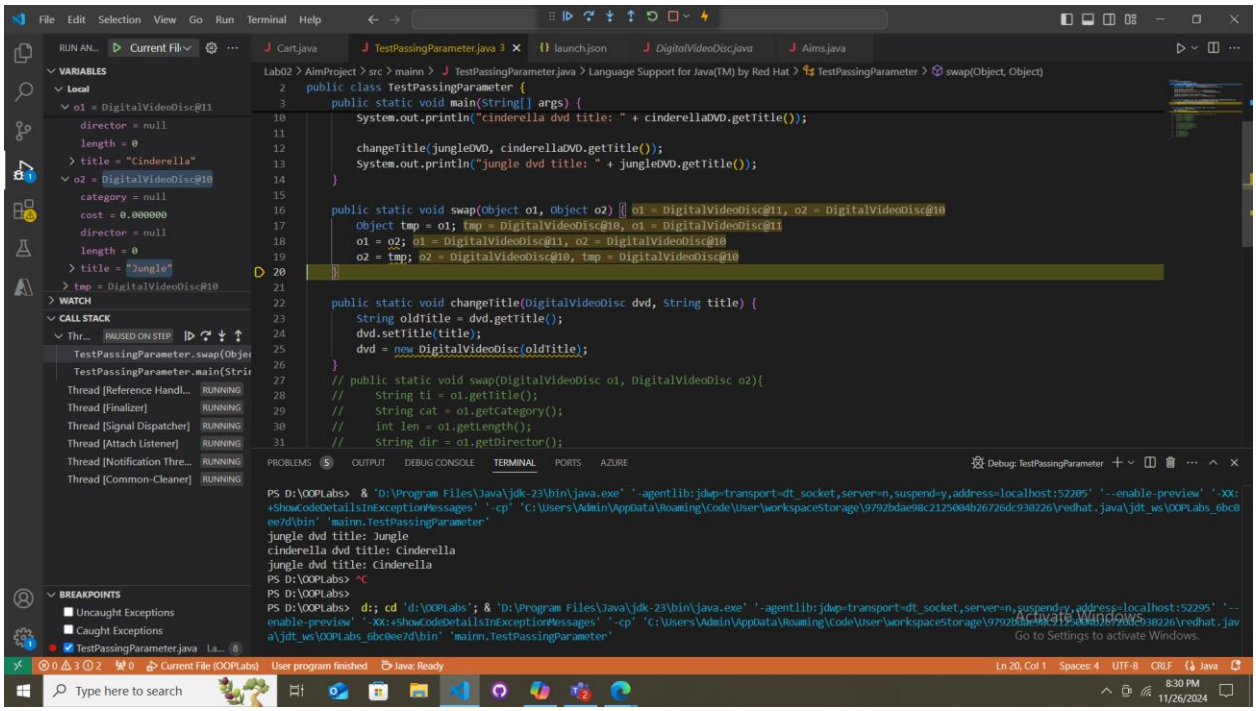
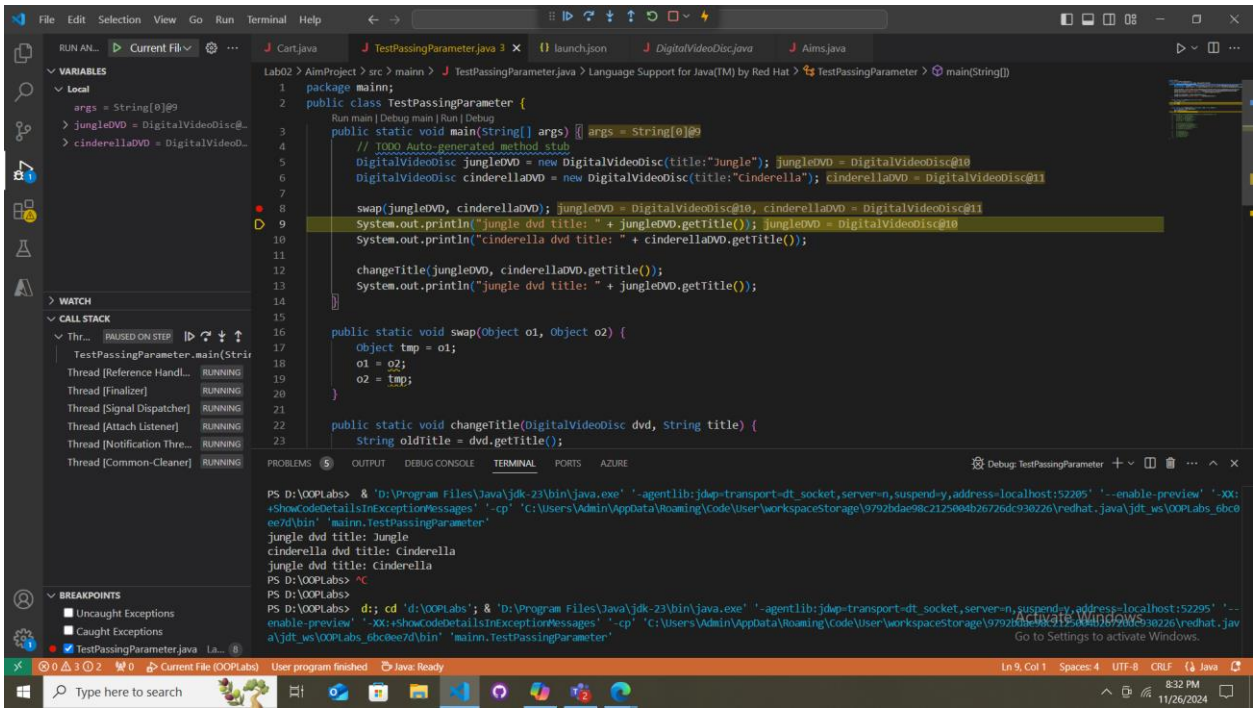
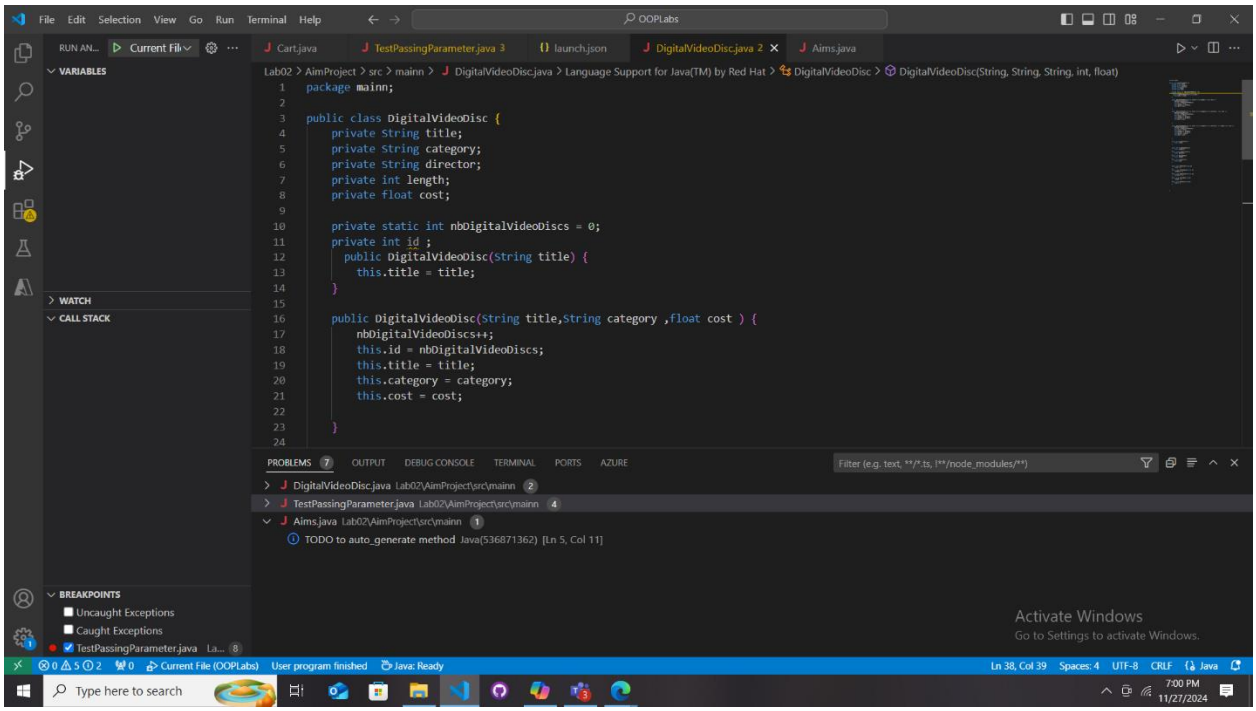
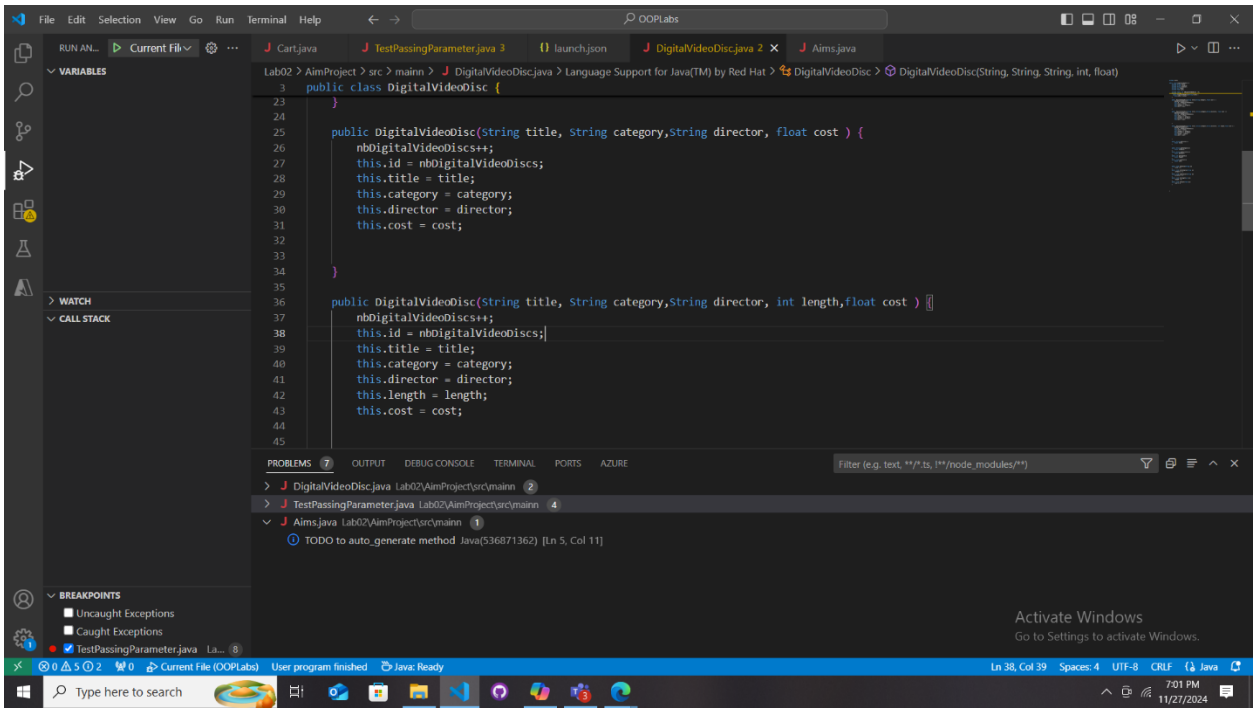
11/26/2024





5.Classifier Member and Instance Member


File Edit Selection View Go Run Terminal Help
OOPLabs
Cart.java
TestPassingParameter.java 3
launch.json
DigitalVideoDisc.java 2
Aims.java
Lab02 > AimProject > src > mainn > DigitalVideoDisc.java > Language Support for Java(TM) by Red Hat > DigitalVideoDisc > DigitalVideoDisc(String, String, String, int, float)
1 package mainn;
2
3 public class DigitalVideoDisc {
4 private String title;
5 private String category;
6 private String director;
7 private int length;
8 private float cost;
9
10 private static int nbDigitalVideoDiscs = 0;
11 private int id ;
12 public DigitalVideoDisc(String title) {
13 this.title = title;
14 }
15
16 public DigitalVideoDisc(String title,String category ,float cost) {
17 nbDigitalVideoDiscs++;
18 this.id = nbDigitalVideoDiscs;
19 this.title = title;
20 this.category = category;
21 this.cost = cost;
22
23 }
24
PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
Filter (e.g. text, **/*.ts, !**/node_modules/**)
DigitalVideoDisc.java Lab02\AimProject\src\mainn 2
TestPassingParameter.java Lab02\AimProject\src\mainn 4
Aims.java Lab02\AimProject\src\mainn 1
TODO to auto_generate method Java(536871362) [Ln 5, Col 11]
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
Activate Windows
Go to Settings to activate Windows.
Ln 38, Col 39 Spaces: 4 UTF-8 CRLF Java
Type here to search
7:00 PM
11/27/2024


File Edit Selection View Go Run Terminal Help
OOPLabs
Cart.java
TestPassingParameter.java 3
launch.json
DigitalVideoDisc.java 2
Aims.java
Lab02 > AimProject > src > mainn > DigitalVideoDisc.java > Language Support for Java(TM) by Red Hat > DigitalVideoDisc > DigitalVideoDisc(String, String, String, int, float)
3 public class DigitalVideoDisc {
23 }
24
25 public DigitalVideoDisc(String title, String category,String director, float cost) {
26 nbDigitalVideoDiscs++;
27 this.id = nbDigitalVideoDiscs;
28 this.title = title;
29 this.category = category;
30 this.director = director;
31 this.cost = cost;
32
33
34 }
35
36 public DigitalVideoDisc(String title, String category,String director, int length,float cost) {
37 nbDigitalVideoDiscs++;
38 this.id = nbDigitalVideoDiscs;
39 this.title = title;
40 this.category = category;
41 this.director = director;
42 this.length = length;
43 this.cost = cost;
44
45
PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
Filter (e.g. text, **/*.ts, !**/node_modules/**)
DigitalVideoDisc.java Lab02\AimProject\src\mainn 2
TestPassingParameter.java Lab02\AimProject\src\mainn 4
Aims.java Lab02\AimProject\src\mainn 1
TODO to auto_generate method Java(536871362) [Ln 5, Col 11]
BREAKPOINTS
Uncaught Exceptions
Caught Exceptions
TestPassingParameter.java
Activate Windows
Go to Settings to activate Windows.
Ln 38, Col 39 Spaces: 4 UTF-8 CRLF Java
Type here to search
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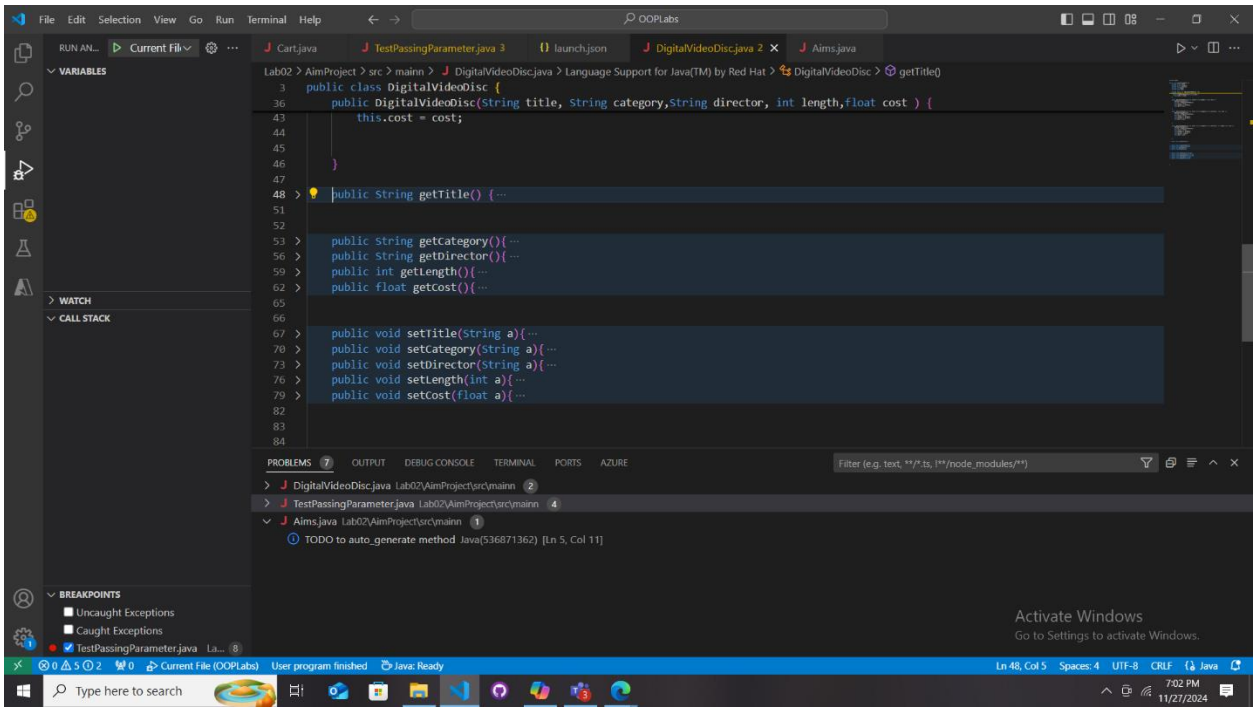
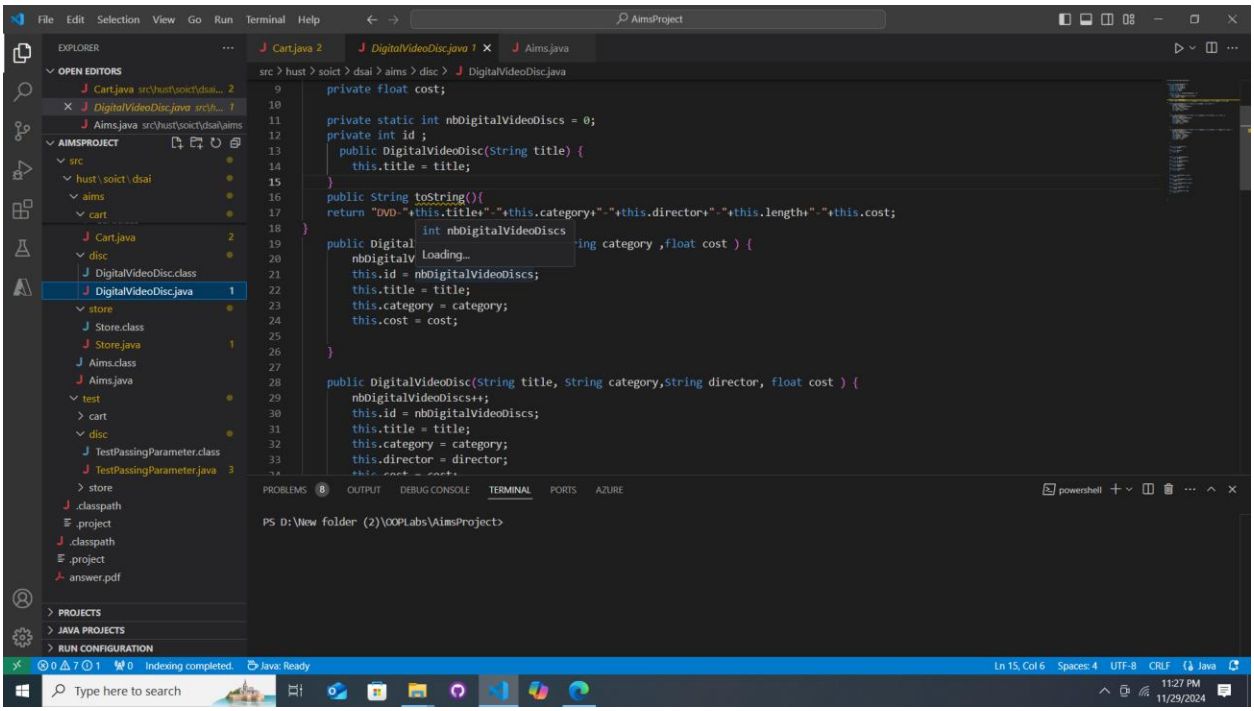
11/27/2024

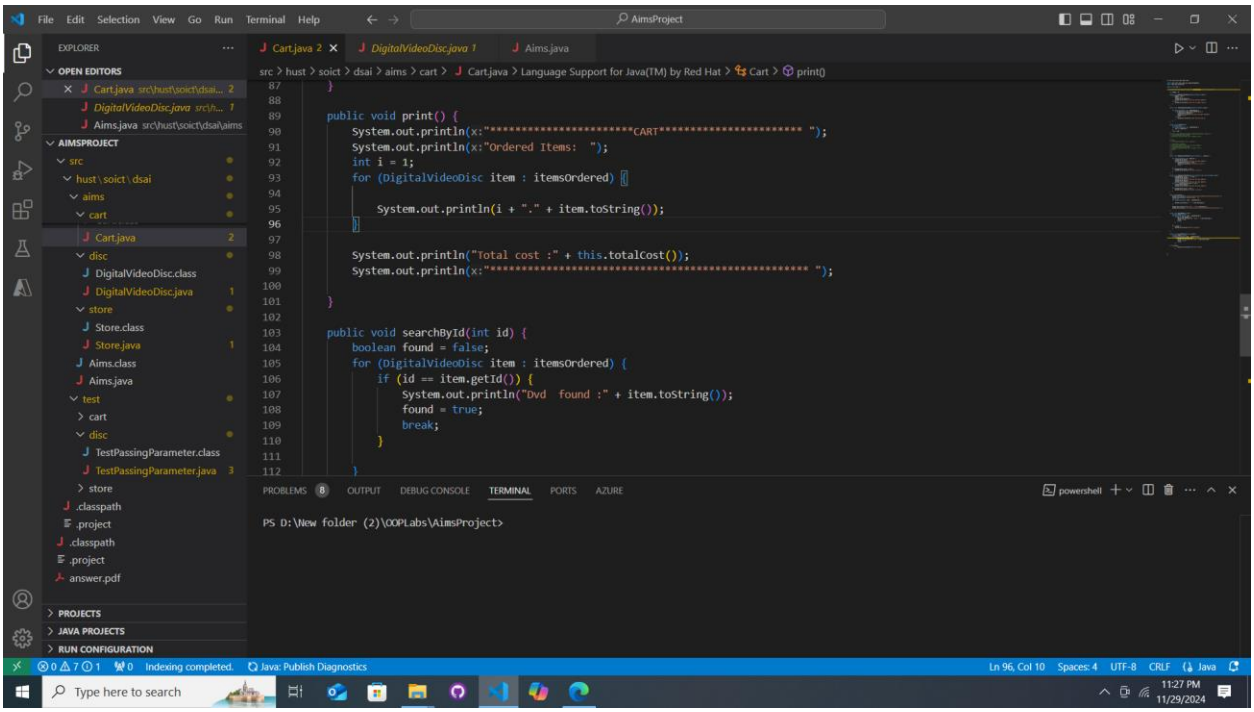


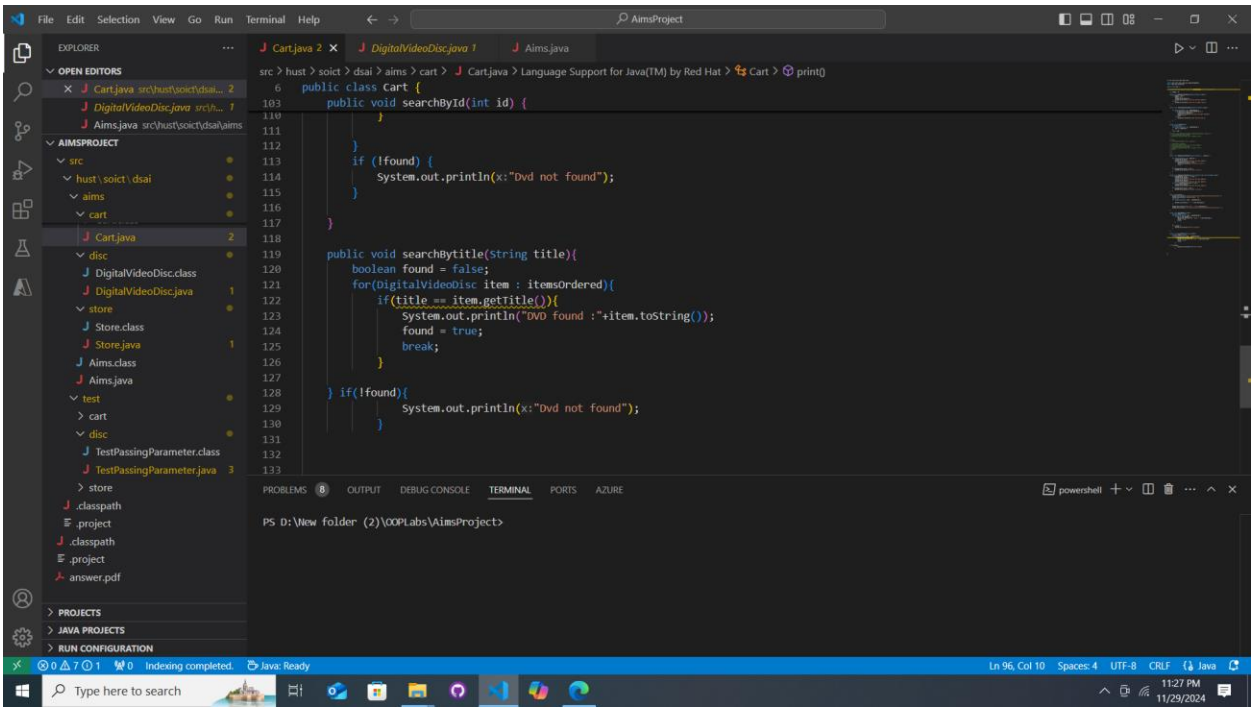
6. Open the `Cart` class

Write a **toString()** method for the **DigitalVideoDisc** class. What should be the return type of this method?

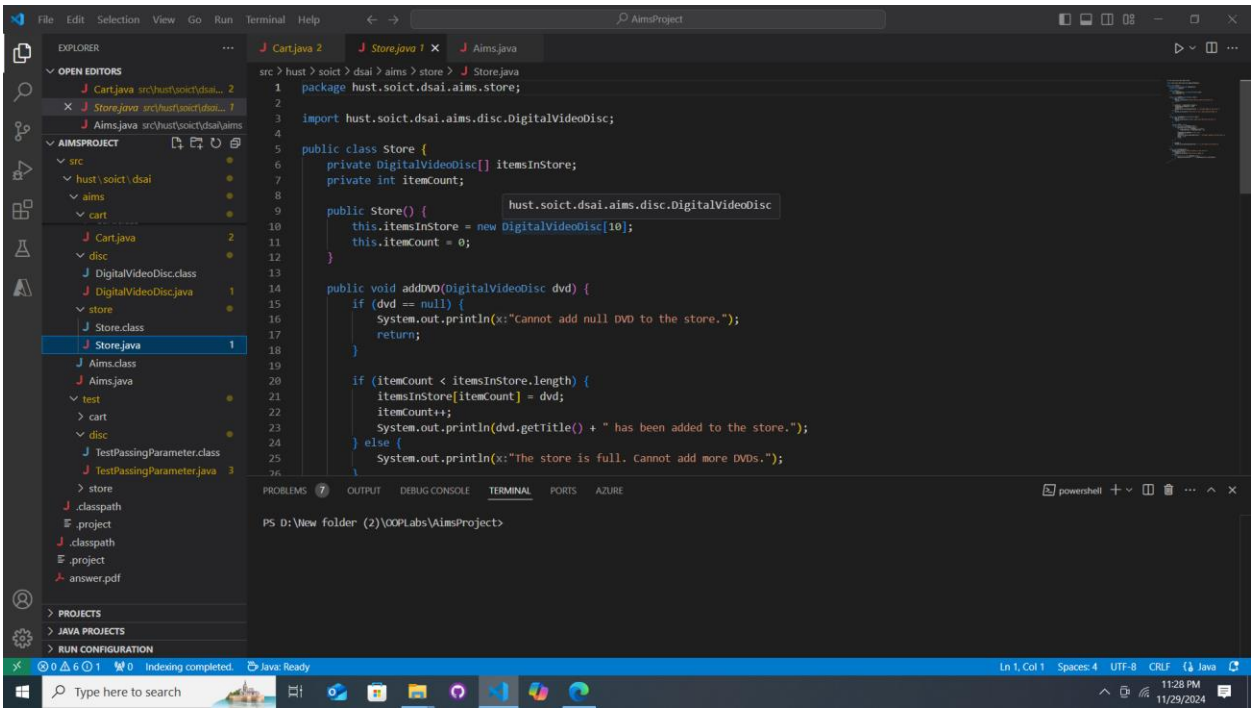
Answer : String

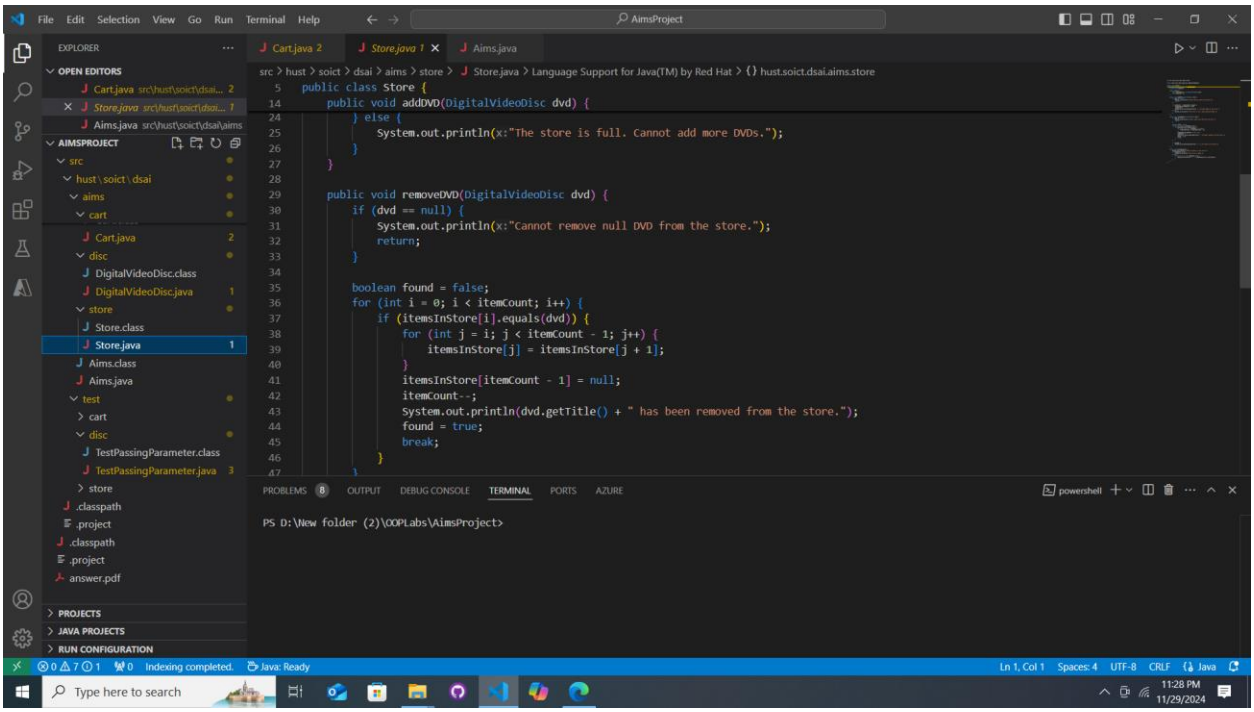

File Edit Selection View Go Run Terminal Help
AimsProject
EXPLORER
OPEN EDITORS
Cart.java src\hust\soict\dsai... 2
DigitalVideoDisc.java src\h... 1
Aims.java src\hust\soict\dsai\aims
AIMSPROJECT
src
hust\soict\dsai
aims
cart
Cart.java 2
disc
DigitalVideoDisc.class
DigitalVideoDisc.java 1
store
Store.class
Store.java 1
Aims.class
Aims.java
test
cart
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
.classpath
.project
.classpath
.project
answer.pdf
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 2
DigitalVideoDisc.java 1
Aims.java
src > hust > soict > dsai > aims > disc > DigitalVideoDisc.java
private float cost;
private static int nbDigitalVideoDiscs = 0;
private int id ;
public DigitalVideoDisc(String title) {
this.title = title;
}
public String toString(){
return "DVD-"+this.title+"-"+this.category+"-"+this.director+"-"+this.length+"-"+this.cost;
}
int nbDigitalVideoDiscs
Loading...
public DigitalVideoDisc(String title, String category ,float cost) {
nbDigitalVideoDiscs++;
this.id = nbDigitalVideoDiscs;
this.title = title;
this.category = category;
this.cost = cost;
}
public DigitalVideoDisc(String title, String category,String director, float cost) {
nbDigitalVideoDiscs++;
this.id = nbDigitalVideoDiscs;
this.title = title;
this.category = category;
this.director = director;
PROBLEMS 8 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
powershell
PS D:\New folder (2)\OOPLabs\AimsProject>
Indexing completed.
Java: Ready
Ln 15, Col 6 Spaces: 4 UTF-8 CRLF Java
Type here to search
11:27 PM
11/29/2024


File Edit Selection View Go Run Terminal Help
AimsProject
EXPLORER
OPEN EDITORS
Cart.java src\hust\soict\dsai... 2
DigitalVideoDisc.java src\h... 1
Aims.java src\hust\soict\dsai\aims
AIMSPROJECT
src
hust\soict\dsai
aims
cart
Cart.java 2
disc
DigitalVideoDisc.class
DigitalVideoDisc.java 1
store
Store.class
Store.java 1
Aims.class
Aims.java
test
cart
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
.classpath
.project
.classpath
.project
answer.pdf
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 2
DigitalVideoDisc.java 1
Aims.java
src > hust > soict > dsai > aims > cart > Cart.java > Language Support for Java(TM) by Red Hat > Cart > print()
}
public void print() {
System.out.println(x:"**********CART********** ");
System.out.println(x:"Ordered Items: ");
int i = 1;
for (DigitalVideoDisc item : itemsOrdered) {
System.out.println(i + "." + item.toString());
}
System.out.println("Total cost :" + this.totalCost());
System.out.println(x:"********** ");
}
public void searchById(int id) {
boolean found = false;
for (DigitalVideoDisc item : itemsOrdered) {
if (id == item.getId()) {
System.out.println("Dvd found :" + item.toString());
found = true;
break;
}
}
PROBLEMS 8 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
powershell
PS D:\New folder (2)\OOPLabs\AimsProject>
Indexing completed.
Java: Publish Diagnostics
Ln 96, Col 10 Spaces: 4 UTF-8 CRLF Java
Type here to search
11:27 PM
11/29/2024

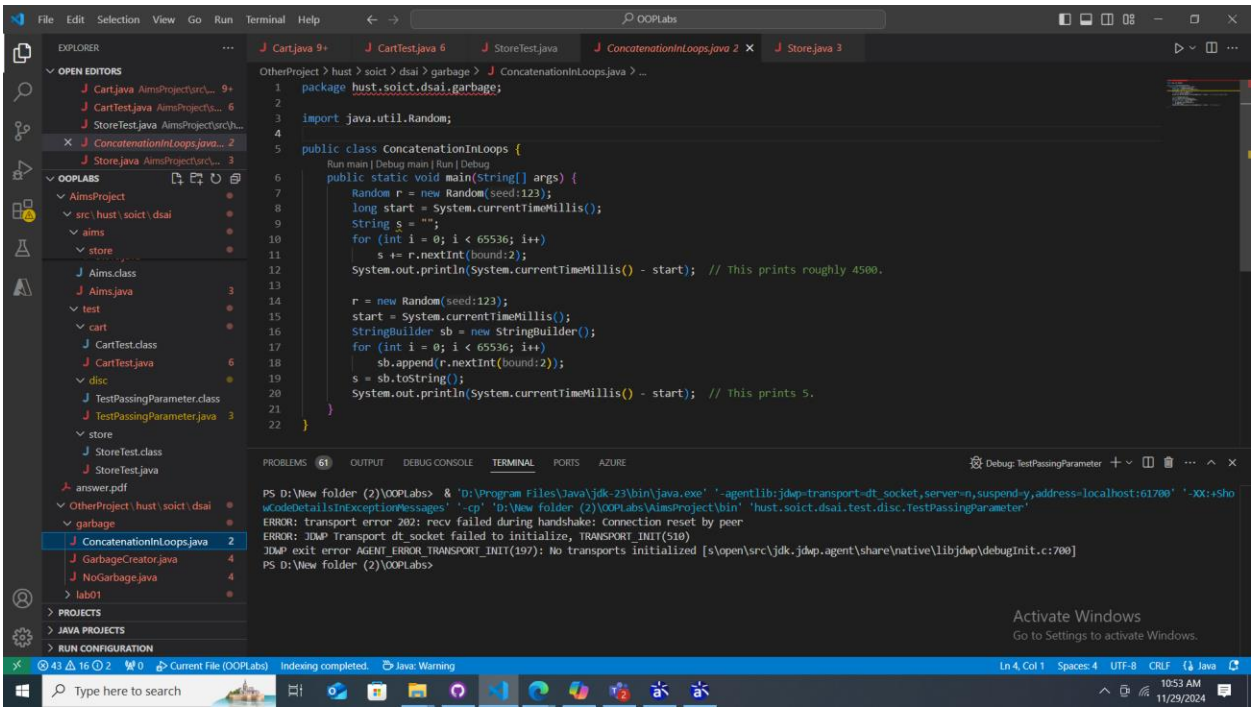

File Edit Selection View Go Run Terminal Help
AimsProject
EXPLORER
OPEN EDITORS
Cart.java src\hust\soict\dsai... 2
DigitalVideoDisc.java src\h... 1
Aims.java src\hust\soict\dsai\aims
AIMSPROJECT
src
hust \ soict \ dsai
aims
cart
Cart.java 2
disc
DigitalVideoDisc.class
DigitalVideoDisc.java 1
store
Store.class
Store.java 1
Aims.class
Aims.java
test
cart
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
.classpath
.project
.classpath
.project
answer.pdf
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 2
DigitalVideoDisc.java 1
Aims.java
src > hust > soict > dsai > aims > cart > Cart.java > Language Support for Java(TM) by Red Hat > Cart > print()
6 public class Cart {
103 public void searchById(int id) {
110 }
111
112 }
113 if (!found) {
114 System.out.println(x:"Dvd not found");
115 }
116
117 }
118
119 public void searchBytitle(String title){
120 boolean found = false;
121 for(DigitalVideoDisc item : itemsOrdered){
122 if(title == item.getTitle()){
123 System.out.println("DVD found :"+item.toString());
124 found = true;
125 break;
126 }
127
128 } if(!found){
129 System.out.println(x:"Dvd not found");
130 }
131
132
133
PROBLEMS 8
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
powershell
PS D:\New folder (2)\OOPLabs\AimsProject>
0 7 1 0 Indexing completed.
Java: Ready
Ln 96, Col 10 Spaces: 4 UTF-8 CRLF Java
Type here to search
11:27 PM
11/29/2024

7. Implement the **`Store`** class





9. *String, StringBuilder and StringBuffer*


File Edit Selection View Go Run Terminal Help
OOPLabs
EXPLORER
OPEN EDITORS
Cart.java AimsProject\src\... 9+
CartTest.java AimsProject\s... 6
StoreTest.java AimsProject\src\h...
ConcatenationInLoops.java... 2
Store.java AimsProject\src\... 3
OOPLABS
AimsProject
src\hust\soict\dsai
aims
store
Aims.class
Aims.java 3
test
cart
CartTest.class
CartTest.java 6
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
StoreTest.class
StoreTest.java
answer.pdf
OtherProject\hust\soict\dsai
garbage
ConcatenationInLoops.java 2
GarbageCreator.java 4
NoGarbage.java 4
lab01
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 9+
CartTest.java 6
StoreTest.java
ConcatenationInLoops.java 2
Store.java 3
OtherProject > hust > soict > dsai > garbage > ConcatenationInLoops.java > ...
package hust.soict.dsai.garbage;
import java.util.Random;
public class ConcatenationInLoops {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
Random r = new Random(seed:123);
long start = System.currentTimeMillis();
String s = "";
for (int i = 0; i < 65536; i++)
s += r.nextInt(bound:2);
System.out.println(System.currentTimeMillis() - start); // This prints roughly 4500.
r = new Random(seed:123);
start = System.currentTimeMillis();
StringBuilder sb = new StringBuilder();
for (int i = 0; i < 65536; i++)
sb.append(r.nextInt(bound:2));
s = sb.toString();
System.out.println(System.currentTimeMillis() - start); // This prints 5.
}
}
PROBLEMS 61
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\New folder (2)\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:61700' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'D:\New folder (2)\OOPLabs\AimsProject\bin' 'hust.soict.dsai.test.disc.TestPassingParameter'
ERROR: transport error 202: recv failed during handshake: Connection reset by peer
ERROR: JDWP Transport dt_socket failed to initialize, TRANSPORT_INIT(510)
JDWP exit error AGENT_ERROR_TRANSPORT_INIT(197): No transports initialized [s\open\src\jdk.jdwp.agent\share\native\libjdwp\debugInit.c:700]
PS D:\New folder (2)\OOPLabs>
Activate Windows
Go to Settings to activate Windows.
43 16 2 0 Current File (OOPLabs) Indexing completed. Java: Warning
Ln 4, Col 1 Spaces: 4 UTF-8 CRLF Java
Type here to search
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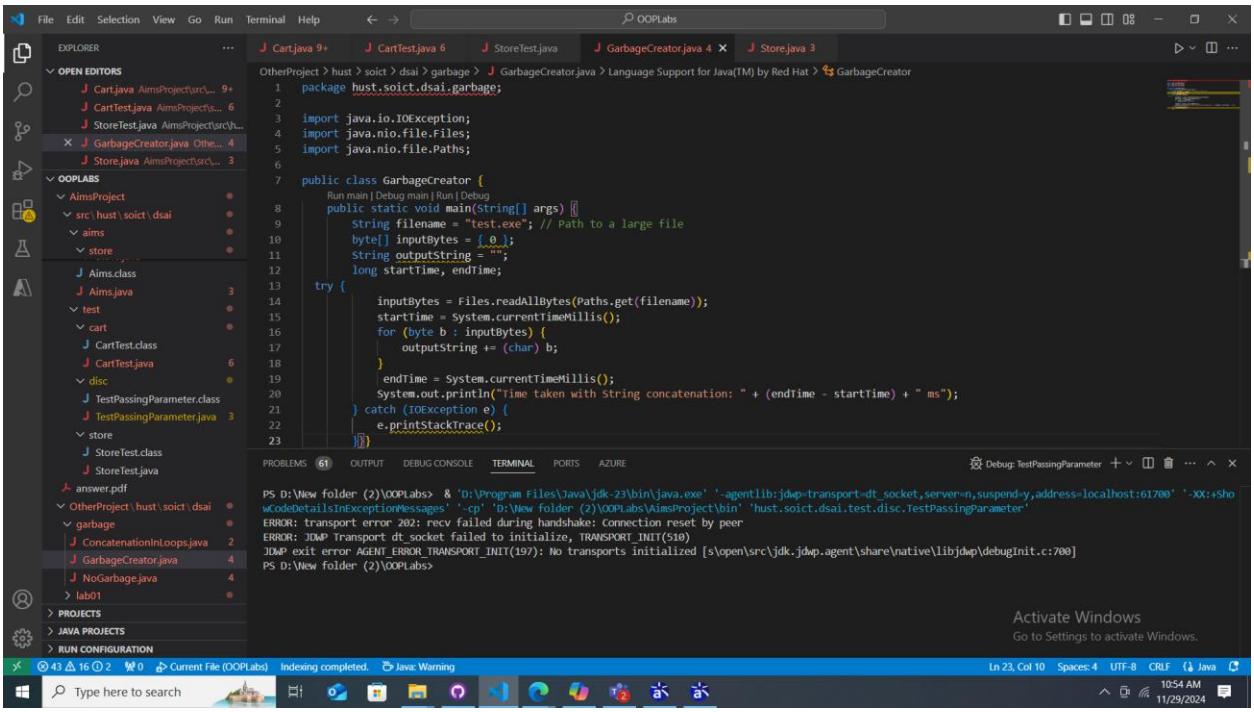
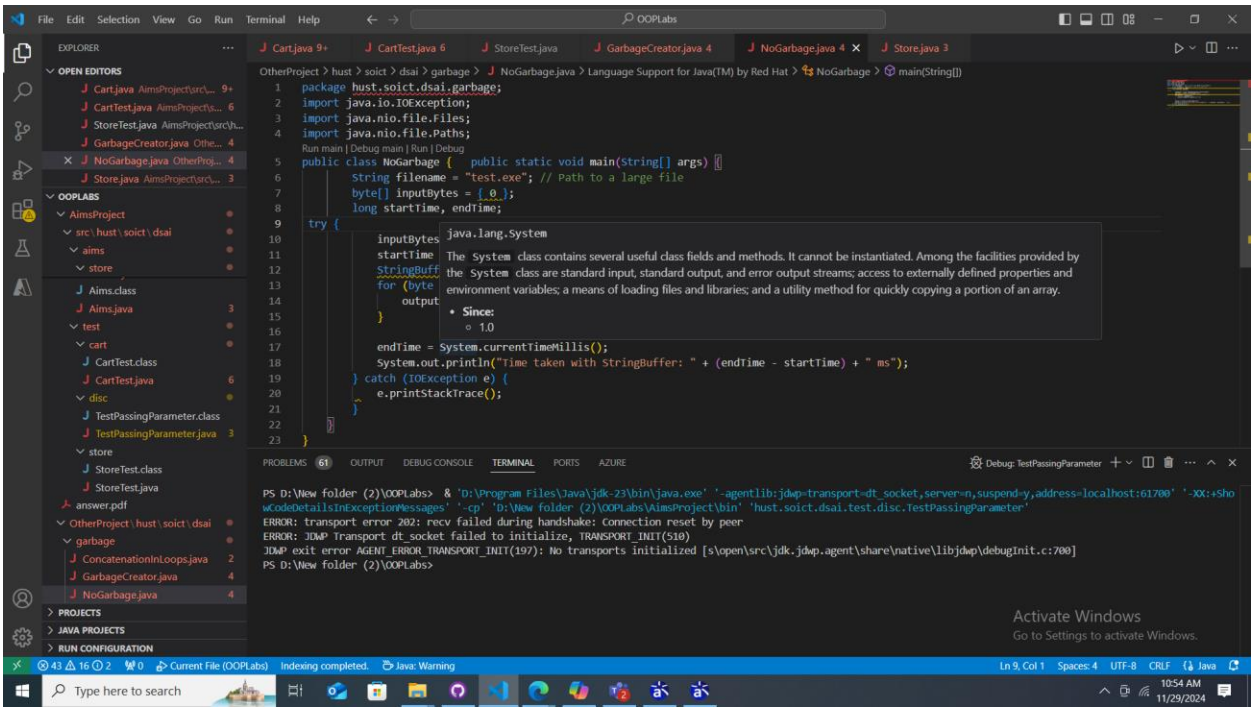
11/29/2024


File Edit Selection View Go Run Terminal Help
OOPLabs
EXPLORER
OPEN EDITORS
Cart.java AimsProject\src\... 9+
CartTest.java AimsProject\s... 6
StoreTest.java AimsProject\src\h...
GarbageCreator.java Othe... 4
Store.java AimsProject\src\... 3
OOPLABS
AimsProject
src\hust\soict\dsai
aims
store
Aims.class
Aims.java 3
test
cart
CartTest.class
CartTest.java 6
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
StoreTest.class
StoreTest.java
answer.pdf
OtherProject\hust\soict\dsai
garbage
ConcatenationInLoops.java 2
GarbageCreator.java 4
NoGarbage.java 4
lab01
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 9+
CartTest.java 6
StoreTest.java
GarbageCreator.java 4
Store.java 3
OtherProject > hust > soict > dsai > garbage > GarbageCreator.java > Language Support for Java(TM) by Red Hat > GarbageCreator
package hust.soict.dsai.garbage;
import java.io.IOException;
import java.nio.file.Files;
import java.nio.file.Paths;
public class GarbageCreator {
Run main | Debug main | Run | Debug
public static void main(String[] args) {
String filename = "test.exe"; // Path to a large file
byte[] inputBytes = {0};
String outputString = "";
long startTime, endTime;
try {
inputBytes = Files.readAllBytes(Paths.get(filename));
startTime = System.currentTimeMillis();
for (byte b : inputBytes) {
outputString += (char) b;
}
endTime = System.currentTimeMillis();
System.out.println("Time taken with String concatenation: " + (endTime - startTime) + " ms");
} catch (IOException e) {
e.printStackTrace();
}}}
PROBLEMS 61
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\New folder (2)\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:61700' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'D:\New folder (2)\OOPLabs\AimsProject\bin' 'hust.soict.dsai.test.disc.TestPassingParameter'
ERROR: transport error 202: recv failed during handshake: Connection reset by peer
ERROR: JDWP Transport dt_socket failed to initialize, TRANSPORT_INIT(510)
JDWP exit error AGENT_ERROR_TRANSPORT_INIT(197): No transports initialized [s\open\src\jdk.jdwp.agent\share\native\libjdwp\debugInit.c:700]
PS D:\New folder (2)\OOPLabs>
Activate Windows
Go to Settings to activate Windows.
43 16 2 0 Current File (OOPLabs) Indexing completed. Java: Warning
Ln 23, Col 10 Spaces: 4 UTF-8 CRLF Java
Type here to search
10:54 AM
11/29/2024


File Edit Selection View Go Run Terminal Help
OOPLabs
EXPLORER
OPEN EDITORS
Cart.java AimsProject\src\... 9+
CartTest.java AimsProject\s... 6
StoreTest.java AimsProject\src\h...
GarbageCreator.java Othe... 4
NoGarbage.java OtherProj... 4
Store.java AimsProject\src\... 3
OOPLABS
AimsProject
src\hust\soict\dsai
aims
store
Aims.class
Aims.java 3
test
cart
CartTest.class
CartTest.java 6
disc
TestPassingParameter.class
TestPassingParameter.java 3
store
StoreTest.class
StoreTest.java
answer.pdf
OtherProject\hust\soict\dsai
garbage
ConcatenationInLoops.java 2
GarbageCreator.java 4
NoGarbage.java 4
PROJECTS
JAVA PROJECTS
RUN CONFIGURATION
Cart.java 9+
CartTest.java 6
StoreTest.java
GarbageCreator.java 4
NoGarbage.java 4
Store.java 3
OtherProject > hust > soict > dsai > garbage > NoGarbage.java > Language Support for Java(TM) by Red Hat > NoGarbage > main(String[])
package hust.soict.dsai.garbage;
import java.io.IOException;
import java.nio.file.Files;
import java.nio.file.Paths;
Run main | Debug main | Run | Debug
public class NoGarbage {
public static void main(String[] args) {
String filename = "test.exe"; // Path to a large file
byte[] inputBytes = {0};
long startTime, endTime;
try {
inputBytes
startTime
StringBuff
for (byte
output
}
endTime = System.currentTimeMillis();
System.out.println("Time taken with StringBuffer: " + (endTime - startTime) + " ms");
} catch (IOException e) {
e.printStackTrace();
}
}
}
java.lang.System
The System class contains several useful class fields and methods. It cannot be instantiated. Among the facilities provided by the System class are standard input, standard output, and error output streams; access to externally defined properties and environment variables; a means of loading files and libraries; and a utility method for quickly copying a portion of an array.
Since:
1.0
PROBLEMS 61
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
AZURE
Debug: TestPassingParameter
PS D:\New folder (2)\OOPLabs> & 'D:\Program Files\Java\jdk-23\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:61700' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'D:\New folder (2)\OOPLabs\AimsProject\bin' 'hust.soict.dsai.test.disc.TestPassingParameter'
ERROR: transport error 202: recv failed during handshake: Connection reset by peer
ERROR: JDWP Transport dt_socket failed to initialize, TRANSPORT_INIT(510)
JDWP exit error AGENT_ERROR_TRANSPORT_INIT(197): No transports initialized [s\open\src\jdk.jdwp.agent\share\native\libjdwp\debugInit.c:700]
PS D:\New folder (2)\OOPLabs>
Activate Windows
Go to Settings to activate Windows.
43 16 2 0
Current File (OOPLabs)
Indexing completed.
Java: Warning
Ln 9, Col 1
Spaces: 4
UTF-8
CRLF
Java
Type here to search
10:54 AM
11/29/2024