Vinjett 3, Period 2

Felsökning och felhantering

Hej! Jag fick följande ofångade undantag när jag körde programmet med $n = 3$ (jag bifogar båda tracen och koden). Jag hittar inte felet och skulle vara tacksam om du kunde hjälpa till !

```
Exception in thread "main" java.util.EmptyStackException
     at java.util.Stack.peek(Stack.java:85)
     at java.util.Stack.pop(Stack.java:67)
     at Hanoi.moveB2C(Hanoi.java:60)
     at Hanoi.moveA2C(Hanoi.java:52)
     at Driver.main(Driver.java:8)
```

```
36  void moveA2B(int n){
37      System.out.println("moveA2B: calling moveA2B with " + n + "\nCurrent stacks:" + this);
38      if(n>0){
39       moveA2C(n-1);
40       System.out.println("moveA2B: after calling moveA2C with " + (n-1) + "\nCurrent stacks:" + this);
41       C.push(A.pop());
42       System.out.println("moveA2B: after moving one element ");
43       moveC2B(n-1);
44       System.out.println("moveA2B: after calling moveC2B with " + (n-1) + "\nCurrent stacks:" + this);
45      }
46  }
```

```
48    void moveA2C(int n){
49        if(n>0){
50         moveA2B(n-1);
51         C.push(A.pop());
52         moveB2C(n-1);
53        }
54    }
```

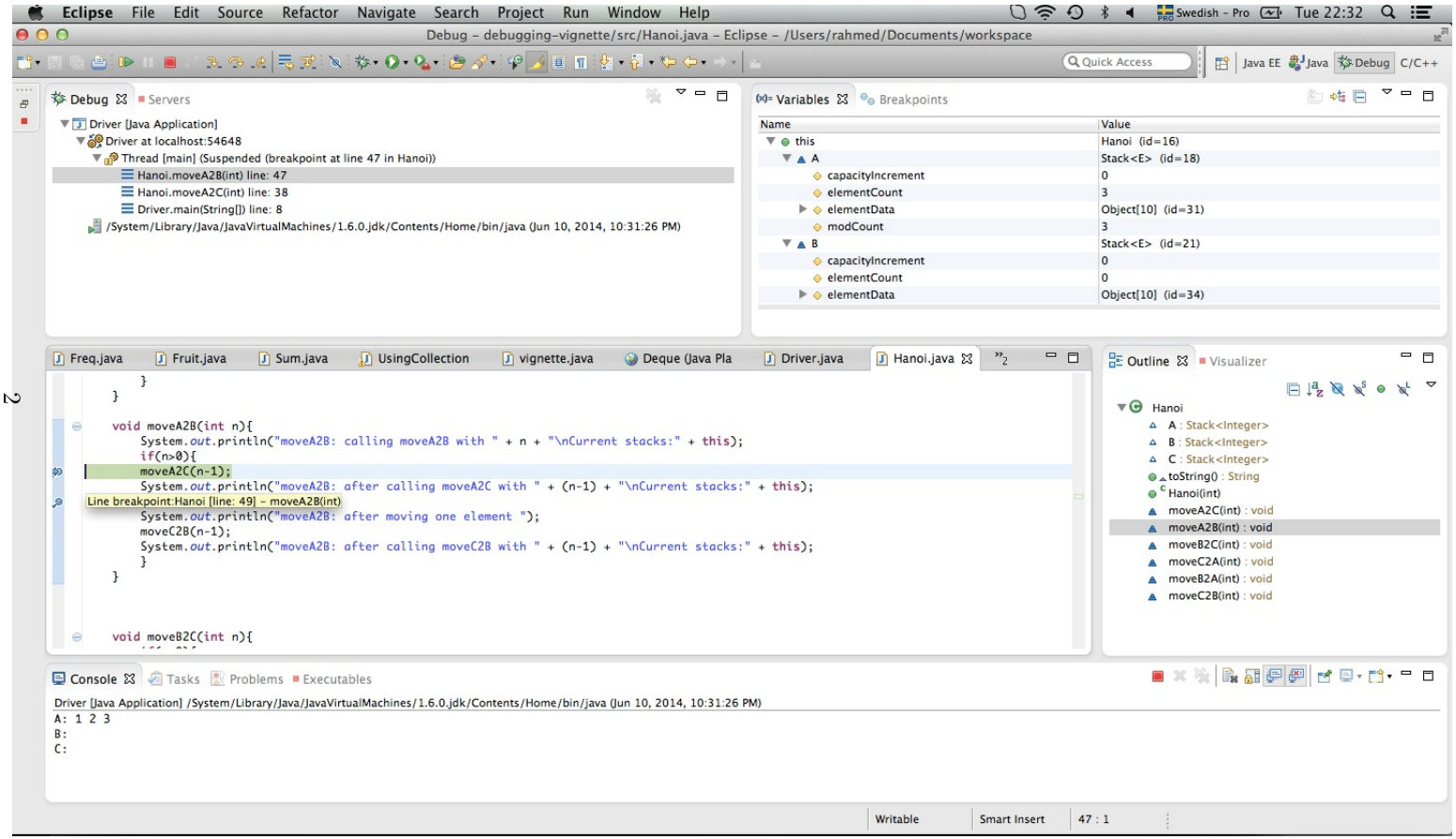
```
56    void moveB2C(int n){
57        if(n>0){
58         moveB2A(n-1);
59         System.out.println(this);
60         C.push(B.pop());
61         System.out.println(this);
62         moveA2C(n-1);
63        }
64    }
```

```
66    void moveC2A(int n){
67        if(n>0){
68         moveC2B(n-1);
69         System.out.println(this);
70         A.push(C.pop());
71         System.out.println(this);
72         moveB2A(n-1);
73        }
74    }
```

```
76        void moveB2A(int n){
77         if(n>0){
78             moveB2C(n-1);
79             System.out.println(this);
80             A.push(B.pop());
81             System.out.println(this);
82             moveC2A(n-1);
83         }
84        }
```

```
87        void moveC2B(int n){
88         if(n>0){
89             moveC2A(n-1);
90             System.out.println(this);
91             B.push(C.pop());
92             System.out.println(this);
93             moveA2B(n-1);
94         }
95        }
96
97    }
```

```
 4  public class Driver {
 5
 6      public static void main(String[] args){
 7       Hanoi h=new Hanoi(3);
 8       h.moveA2C(3);
 9      }
10
11  }
```


Eclipse File Edit Source Refactor Navigate Search Project Run Window Help
Debug – debugging-vignette/src/Hanoi.java – Eclipse – /Users/rahmed/Documents/workspace
Debug
Servers
Driver [Java Application]
Driver at localhost:54648
Thread [main] (Suspended (breakpoint at line 47 in Hanoi))
Hanoi.moveA2B(int) line: 47
Hanoi.moveA2C(int) line: 38
Driver.main(String[]) line: 8
/System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home/bin/java (Jun 10, 2014, 10:31:26 PM)
Variables
Breakpoints
Name
Value
this
Hanoi (id=16)
A
Stack<E> (id=18)
capacityIncrement
0
elementCount
3
elementData
Object[10] (id=31)
modCount
3
B
Stack<E> (id=21)
capacityIncrement
0
elementCount
0
elementData
Object[10] (id=34)
Freq.java
Fruit.java
Sum.java
UsingCollection
vignette.java
Deque (Java Pla
Driver.java
Hanoi.java
}
}
void moveA2B(int n){
System.out.println("moveA2B: calling moveA2B with " + n + "\nCurrent stacks:" + this);
if(n>0){
moveA2C(n-1);
System.out.println("moveA2B: after calling moveA2C with " + (n-1) + "\nCurrent stacks:" + this);
Line breakpoint:Hanoi [line: 49] - moveA2B(int)
System.out.println("moveA2B: after moving one element ");
moveC2B(n-1);
System.out.println("moveA2B: after calling moveC2B with " + (n-1) + "\nCurrent stacks:" + this);
}
}
void moveB2C(int n){
Outline
Visualizer
Hanoi
A : Stack<Integer>
B : Stack<Integer>
C : Stack<Integer>
toString() : String
Hanoi(int)
moveA2C(int) : void
moveA2B(int) : void
moveB2C(int) : void
moveC2A(int) : void
moveB2A(int) : void
moveC2B(int) : void
Console
Tasks
Problems
Executables
Driver [Java Application] /System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home/bin/java (Jun 10, 2014, 10:31:26 PM)
A: 1 2 3
B:
C:
Writable
Smart Insert
47 : 1