

Exercise 13&14&19

Wednesday, August 24, 2022 3:13 PM

```
public class Date implements Comparable<Date>
{
    Date(int month, int day, int year) create a date
    Date(String date) create a date (parse constructor)
    int month() month
    int day() day
    int year() year
    String toString() string representation
    boolean equals(Object that) is this the same date as that?
    int compareTo(Date that) compare this date to that
    int hashCode() hash code
}
```

← Use this model

```
public class Transaction implements Comparable<Transaction>
{
    Transaction(String who, Date when, double amount)
    Transaction(String transaction) create a transaction (parse constructor)
    String who() customer name
    Date when() date
    double amount() amount
    String toString() string representation
    boolean equals(Object that) is this the same transaction as that?
    int compareTo(Transaction that) compare this transaction to that
    int hashCode() hash code
}
```

can not initialize static final variable in try/catch

Asked 4 years, 4 months ago Modified 4 years, 4 months ago Viewed 3k times

5 I am trying to initialize a static final variable. However, this variable is initialized in a method which can throw exception, therefore, I need to have inside a try catch block.

Even if I know that variable will be either initialized on try or on catch block, java compiler produces an error

The final field a may already have been assigned

This is my code:

```
public class TestClass {
    private static final String a;

    static {
        try {
            a = fn(); // ERROR
        } catch (Exception e) {
            a = null;
        }
    }

    private static String fn() throws Exception {
        throw new Exception("Forced exception to illustrate")
    }
}
```

I tried another approach, declaring it as null directly, but it shows

← I encountered the same problem with the private field when

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```
}  
}
```

I tried another approach, declaring it as null directly, but it shows a similar error (In this case, it seems totally logic for me)

The final field TestClass.a cannot be assigned

```
public class TestClass {  
    private static final String a = null;  
  
    static {  
        try {  
            a = fn(); // ERROR  
        } catch (Exception e) {  
        }  
    }  
  
    private static String fn() throws Exception {  
        throw new Exception("Forced exception to illustrate")  
    }  
}
```

Is there an elegant solution for this?

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10 You can assign the value to a local variable first, and then assign it to the `final` variable after the `try - catch` block:

```
private static final String a;  
  
static {  
    String value = null;  
    try {  
        value = fn();  
    } catch (Exception e) {  
    }  
    a = value;  
}
```

This ensures a single assignment to the `final` variable.

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edited Apr 23, 2018 at 9:38

answered Apr 23, 2018 at 9:22



Eran

378k ● 51 ● 673 ● 744

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```
private final String who;  
private final Date when; // t  
private final double amount;
```

```
// exercise 19:parsing  
public Transaction(String s)  
{  
    // splits the string into fragments when a sequence of one or more whitespace characters are detected  
    String[] space_splits = s.split("\\s+");  
    this.who = space_splits[0];  
  
    //temporary variable to hold the value of when  
    // if try catch doesn't work, the value of temp will be assign to this.when  
    // without a temporary variable, a compiler error will occurs saying that when might not have been initialized.  
    Date temp = new Date();  
    // handle parse exception may occurs when calling the parse()  
    try  
    {  
        temp = new SimpleDateFormat("MM/dd/yyyy").parse(space_splits[1]);  
    }  
}
```

I confronted this problem because I was using the Date class provided by

```
{  
    temp = new SimpleDateFormat("MM/dd/yyyy").parse(space_splits[1]);  
}  
  
catch (ParseException e)  
{  
    e.printStackTrace();  
}  
  
this.when = temp;  
this.amount = Double.parseDouble(space_splits[2]);  
  
}
```

I confronted this problem because I was using the Date class provided by java.util.Date. I should apply the one provided by algs4...