

1. uzdevums

Kāpēc dotā klases izpildes rezultātā tiek iegūts `java.lang.NullPointerException`?

```
public class Bug1 {  
    private String s;  
  
    public void Bug1() { s = "hello"; }  
  
    public String toString() { return s; }  
  
    public static void main(String[] args) {  
  
        Bug1 x = new Bug1();  
  
        System.out.println(x.toString().length());  
  
    }  
}
```

2. uzdevums

Kāpēc dotās klases izpildes rezultātā tiek iegūts `java.lang.NullPointerException`?

```
public class Bug2 {  
    private String s;  
  
    public Bug2(String s) { }  
    {  
        System.out.println("here");  
        this.s = s;  
    }  
  
    public String toString()  
    {  
        return s;  
    }  
  
    public static void main(String[] args)  
    {  
        Bug2 x = new Bug2("hello");  
        System.out.println(x.toString().length());  
    }  
}
```

3. uzdevums

Šajā uzdevumā ir jāizveido virsklase un apakšklases un kods, kurš demonstrē dotās prasības, saskaņā sekojošo informāciju.

Publishing, Inc. has employees in several different positions. These positions are: Technical Writers, Graphic Illustrators, Managers, and Editors.

Publishing, Inc. wants you to create a program for tracking information about each of its workers. This information consists of: the worker's name, job title, employee ID (in the range of 1 to 10,000), and level (1, 2, or 3). Additionally:

- Managers must have a list of employees that they manage.
- Technical Writers, Graphic Illustrators, and Editors must have a list of skills that they have.
- Editors must have a value indicating whether they prefer to do electronic editing or paper-based editing.
- All subclasses must have a method to display the information for the employee type.

To design your subclasses and superclasses:

1. Create a class hierarchy of superclass and subclass relationships for the employees in Publishing, Inc. Use the "is a" phrase to test your class hierarchy.
2. Model the class hierarchy using class diagrams similar to those in this module.

Demonstrate encapsulation for each of the classes in your design by including get and set methods in your design.