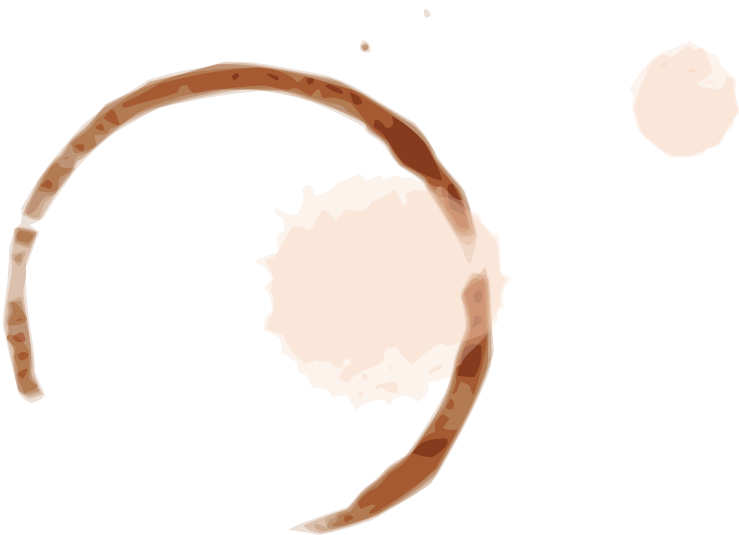# Exception Handling in Java
IFT 194: HW 6

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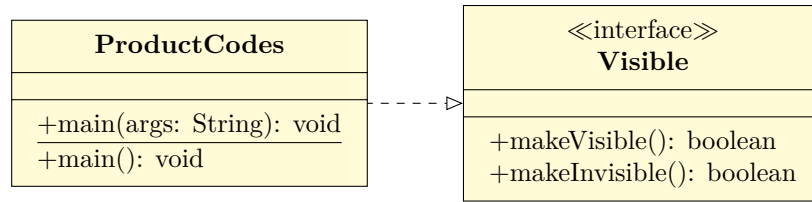
Summary

View the source of this document on GitHub.

Figure 1: UML diagram of the code presented in Figure 2.

Ex. 11.2

For this question we're tasked with creating a UML class diagram of the `ProductCodes` program I've recreated in Figure 1. See below for my solution.

Ex. 11.3

Ex. 11.4

PP. 11.1

PP. 11.2

```java
package ift_hw;

import java.util.Scanner;

/**
 * Essentially a parser for product numbers.
 *
 * @author Brandon Doyle
 */
public class ProductCodes
{
    public static void main(String[] args)
    {
        try (var scnr = new Scanner(System.in)) {
            String code;
            char zone;
            int district, valid = 0, banned = 0;

            System.out.print("Enter product code or (XXX) to quit: ");
            code = scnr.nextLine();

            while (!code.equals("XXX"))
            {
                try {
                    zone = code.charAt(9);
                    district = Integer.parseInt(code.substring(3, 7));
                    valid++;
                    if (zone == 'R' && district > 2000)
                        banned++;
                } catch (StringIndexOutOfBoundsException ex) {
                    System.out.printf(
                        "*** Error: Improper code length, received $d\n", code);
                    continue;
                } catch (NumberFormatException ex) {
                    System.out.printf(
                        "*** Error: District is not numeric, received %s\n", code);
                    continue;
                }

                System.out.println("Enter a product code (XXX to quit): ");
                code = scnr.nextLine();
            }

            System.out.printf("# of valid codes entered: %d\n", valid);
            System.out.printf("# of banned codes entered: %d\n", banned);
        }
    }
}
```

Figure 2: ProductCodes.java