# Solution --- Lecture 8.2 Programming Exercise

This is a possible solution to the programming exercise. Your solution does not have to be exactly the same, but it should produce similar results.

```
import java.util.*;

public class ShelfLifeExercise
{
	public static void main( String [] args )
	{
		ArrayList< GroceryItem> shortLife = new ArrayList< GroceryItem >();
		ArrayList< GroceryItem> longLife = new ArrayList< GroceryItem>();
		int shelfLife = 0;

		// Create & sort grocery items

		Random rn = new Random( 20101119 );

		for( int i = 0; i < 50; i++ )
		{
			shelfLife = rn.nextInt( 30 ) + 1;
			GroceryItem item = new GroceryItem( i + 1, shelfLife );

			if ( shelfLife > 7 )
				longLife.add( item );
			else
				shortLife.add( item );
		}

		System.out.println( "There are " + shortLife.size() +
		                    " short-lived items:" );
		display( shortLife );

		System.out.println( "There are " + longLife.size() +
		                    " long-lived items: " );
		display( longLife );
	}

	public static void display( ArrayList<GroceryItem> array )
	{
		for( GroceryItem item : array )
			System.out.println( "code: " + item.getCode() +
			                    "   shelf life: " + item.getLife() );
	}
}
```