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package ca.camosun.converters;
import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;
import java.util.Map;
// work flow detail app which uses lambda functions to generate conversions.
public class Converters {
    public class ConverterItem {
        public String id;
        public String labelName;
        public String lButtonLabel;
        public String rButtonLabel;
        public Lambda leftConverter;
        public Lambda rightConverter;
        // Takes the variables from the ConverterItem class and controls access to it.
        public ConverterItem(String id, String labelName, String lButtonLabel, String
rButtonLabel,
                                Lambda leftConverter, Lambda rightConverter) {
            this.id = id;
            this.labelName = labelName;
            this.lButtonLabel = lButtonLabel;
            this.rButtonLabel = rButtonLabel;
            this.leftConverter = leftConverter;
            this.rightConverter = rightConverter;
        }
    }
    // functions set up to place text to the buttons and the main text box.
    public String lButtonLabel() {
        return lButtonLabel;
    }
    public String rButtonLabel() {
        return rButtonLabel;
    }
    public String labelName() {
        return labelName;
    }
    // using an item id returns what is needed and sends it to the converter item.
    @Override
    public String toString() {
        return id;
    }
}
/* scope of the conversion class which will be passed in the lambda functions.
*/
protected interface Lambda {
    Double convert(Double input);
}
// add items to the work flow with the id
private static void addItem(ConverterItem item) {
    ITEMS.add(item);
    ITEM_MAP.put(item.id, item);
}
public static final Map<String, ConverterItem> ITEM_MAP = new HashMap<String,
ConverterItem>();
public static final List<ConverterItem> ITEMS = new ArrayList<ConverterItem>();
//Called when the activity class is first created and gives information about the
layout resource.
public void createConverterItems() {
    addItem(new ConverterItem("1", "Area", "Ac to Ha", "Ha to Ac", (Double ac) -> ac *
0.404686, (Double ha) -> ha * 2.47105));
    addItem(new ConverterItem("2", "Length", "Ft to M", "M to Ft", (Double ft) -> ft *
0.3048, (Double m) -> m * 3.28084));
}

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        addItem(new ConverterItem("3", "Temperature", "C° to F°", "F° to C°", (Double ca)
-> ca * 9.0 / 5.0 + 32.0, (Double fa) -> (fa - 32.0) * 5.0 / 9.0));
        addItem(new ConverterItem("4", "Weight", "Lbs to Kg", "Kg to Lbs", (Double lbs) ->
lbs * 0.453592, (Double ki) -> ki * 2.20462));
    }
}
```