

```

/* *****
 *   CreateAgent.java
 *   Handles the creation of new derivatives
 * *****
package player.playeragent;

import player.*;
import edu.neu.ccs.demeterf.demfgen.lib.List;
import gen.*;

/** Class for creating a derivative */
public class CreateAgent implements PlayerI.CreateAgentI{

    /** Returns a newly created derivative of a different type than already existing derivatives */
    public Derivative createDerivative(Player player, List<Type> existing){
        Type type = Util.freshType(existing);
        Price price = makePrice(type);
        return new Derivative(Util.freshName(player), player.id, price, type);
    }

    public static Price makePrice(Type t){
        return new Price(Math.min(1, Util.breakEvenValue(t) + 1.0/ ((double) DeliverAgent.NUM_VARIABLES)
));
    }
}

```