

Here is a brief description of the design. First, there is a Client class that manages all of the boto3 libraries. The client has a Request and a Widget in it, but they are not class attributes. There is a method in the Client class called process_next_request. It takes the first request in the source bucket and loads it into the Request class. The Request class handles all of the parsing of the request. Then, it converts the request into a Widget by storing it in the Widget class. It then puts the widget in the destination bucket.

The Widget class is an abstract class. The S3_Widget and DynamoDB_Widget classes are instantiated depending on the method used. This uses the polymorphism of the abstract class, because the client doesn't need to know about the intricacies of converting the widget attributes to fit the desired destination. It just knows that it's a widget and processes it accordingly.