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Alterations to Original UML

The largest change from the original UML was to remove the Item interface, and simply move the functionality for this into the classes that implement the Cell class. For example, in the original UML diagram, the Key class implements the Item class. However, in the updated version, the Key class implements the Cell interface. This decision was made because the tile images provided were entire cells featuring an item, not just that item. This made it harder to treat the item and cell as separate. However, as noted in my design discussion, I likely would’ve stuck with original design if I did this assignment again, since an item can be separated from its cell (when it’s picked up by the player), so separate interfaces for each would have made more sense. Another significant change is that both the Grid class and Player class have the Singleton design pattern in the updated UML, but did not have it in the original. This design decision was made because there would be one of each at any given time, and certain aspects of both class were required throughout various class. Consequently, using the Singleton design pattern made dealing with these classes much simpler. A final change was the addition of Cell Factory class in the final iteration in order to make generating cells (and thus generating each level) easier.