

## Changing Elements – Actions

Many of you will need to have elements that change based on what the player's actions. Examples of this include:

- Rooms whose descriptions vary
- Items whose descriptions vary either based on something the player does with the item or simply because of the passage of time
- NPCs whose interaction with the player changes (e.g., the conversation script changes as the player has done things)

All of these are implemented in a similar way.

1. Modify the field that is storing the changing element to store a collection of those elements instead of a single element and add an integer field to store the index of the active element in the collection. For example, for rooms and items whose descriptions vary use an *ArrayList of String* for the description.
2. Refactor existing methods to handle the collection using the index of the active element.
3. Add the additional elements in the appropriate places in the *World* class.
4. Add a method that will changes the active element by changing value of the active element field.
5. Be sure to test your project thoroughly and check your changes into Github.