Team Liza
Milestone 3

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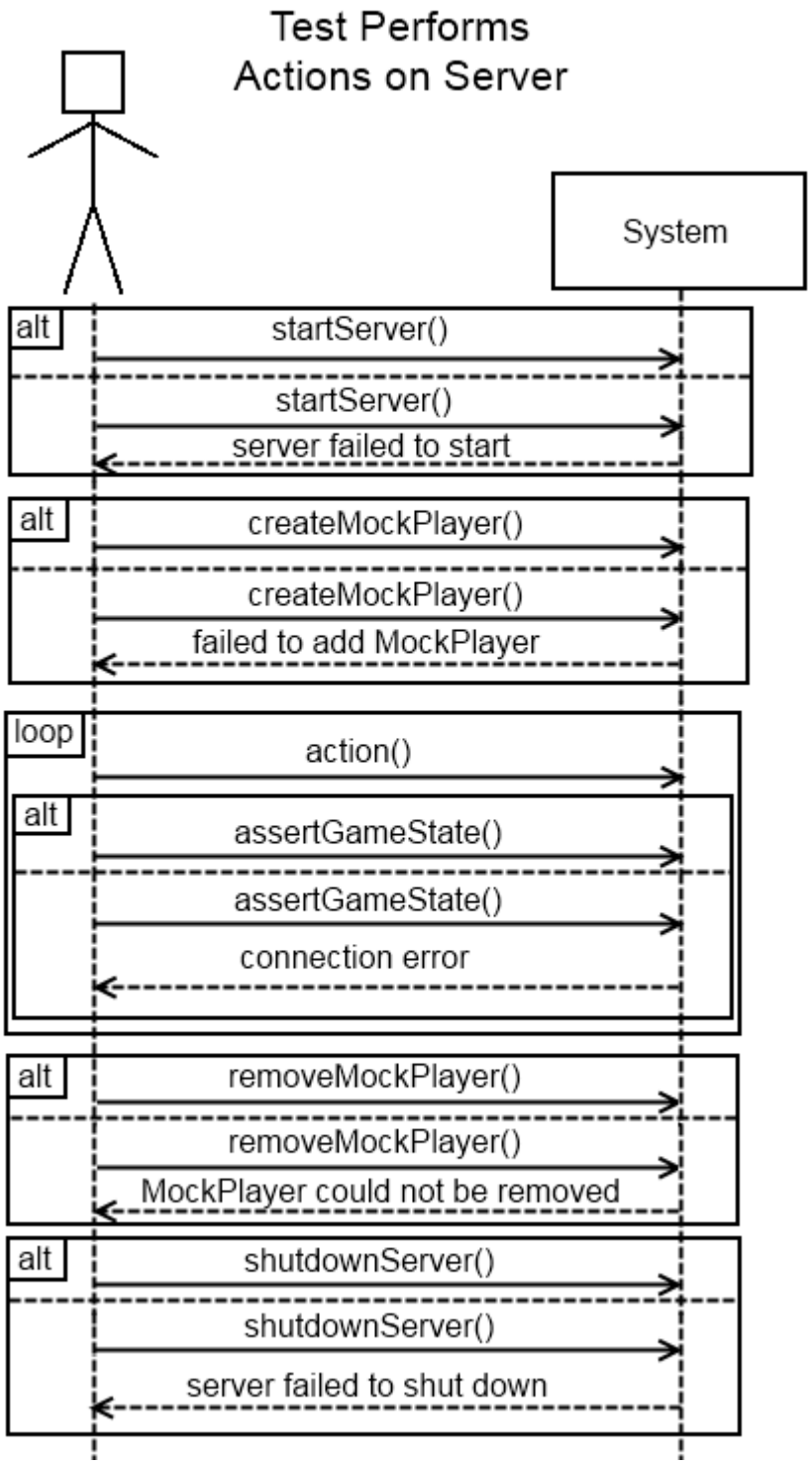
Contents

1 System Sequence Diagrams (SSD)

There are many SSDs that will apply to this project – one for each assertion. However, each of these will follow the exact same format. Instead, we produced a single SSD that details the flow of a test case that a developer may write. This includes general exception cases and alternate paths which could be produced.


Test Performs
Actions on Server
System
alt
startServer()
startServer()
server failed to start
alt
createMockPlayer()
createMockPlayer()
failed to add MockPlayer
loop
action()
alt
assertGameState()
assertGameState()
connection error
alt
removeMockPlayer()
removeMockPlayer()
MockPlayer could not be removed
alt
shutdownServer()
shutdownServer()
server failed to shut down

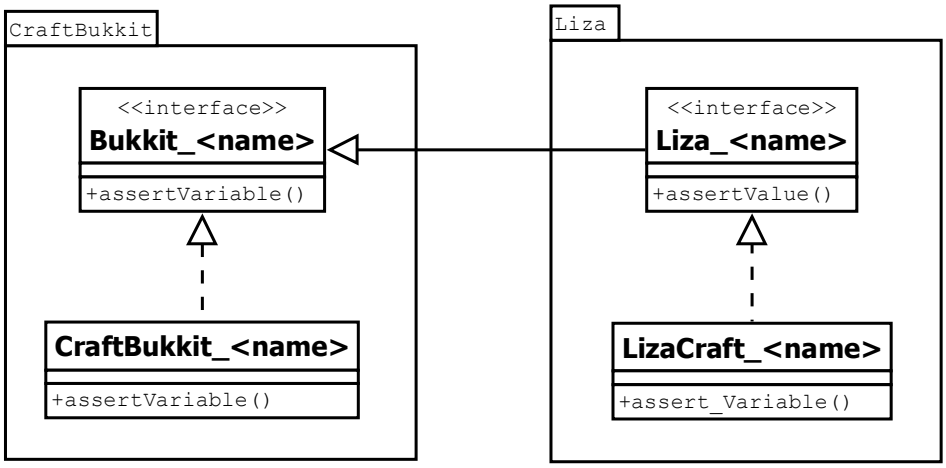
2 Operational Contracts (OC)

There are no operational contracts necessary for our system, as all system calls are simple and often do not create instances of classes.

3 Package Diagram

There exists a degree of separation between our system and Bukkit, in the sense that our system interacts with Bukkit, yet Bukkit is not aware of our system. However, all of the classes in our system will all belong to the same package, due to the high amount of interaction between classes. Because of this, a package diagram is not applicable. However, we have included a diagram which depicts the relationship between Liza and Bukkit in general. For each Bukkit class that is relavent, Liza will extend a new interface and create a new LizaCraft class that will implement it.

Bukkit-Liza Relationship



4 Class Diagram

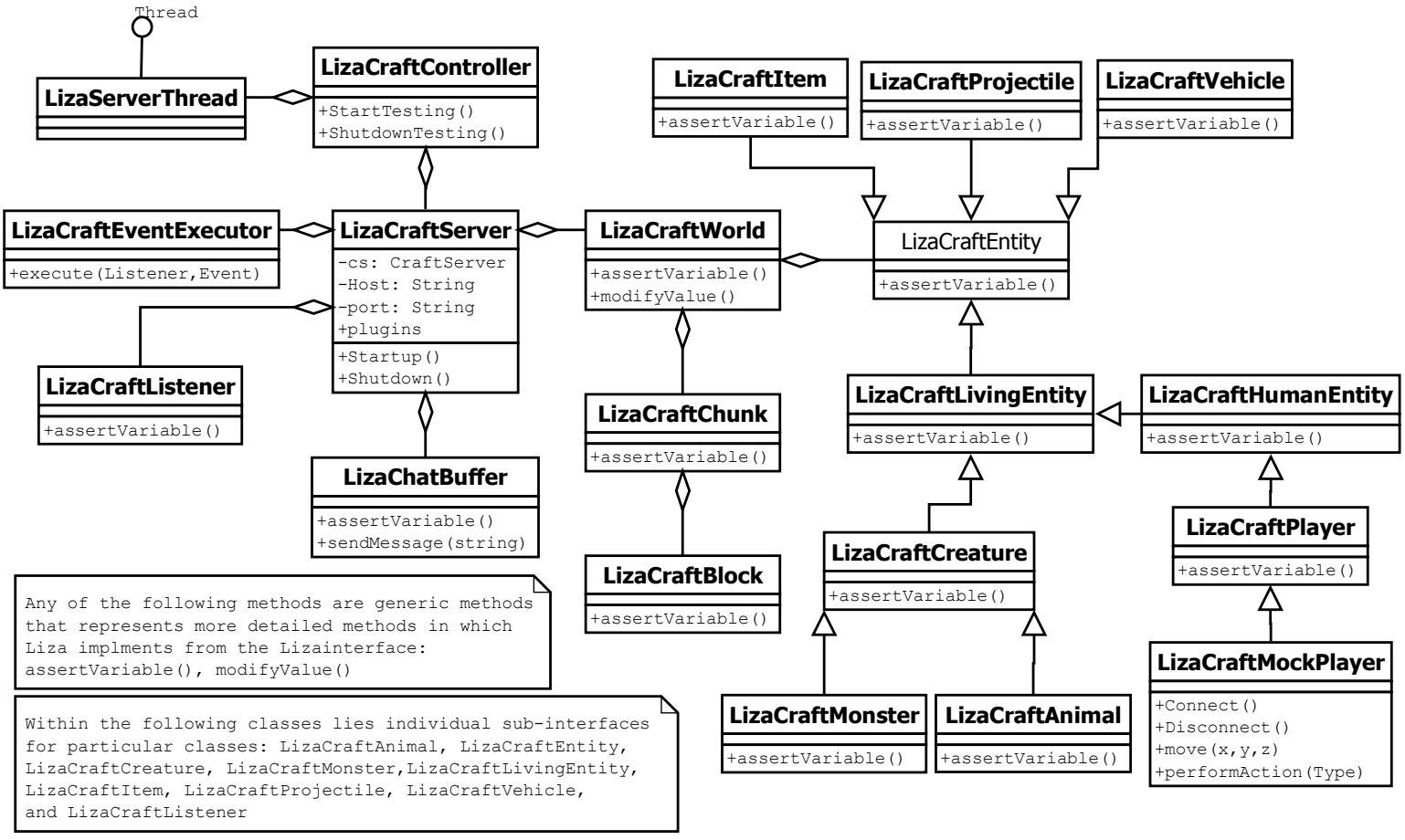
The diagram is found on the following pages.

Bukkit has two main layers: Bukkit, which is a collection of interfaces that a plugin developer utilizes, and CraftBukkit, which is the implementation of those interfaces. Our system will mirror this design. There is Liza, which is a set of interfaces that inherit the Bukkit interfaces, and LizaCraft, which is the implementation of the Liza interfaces and extends the CraftBukkit classes. By extending the existing Bukkit and CraftBukkit, we present the API that the developers are accustomed to, along with any new methods that may be of use for testing, such as asserting properties.

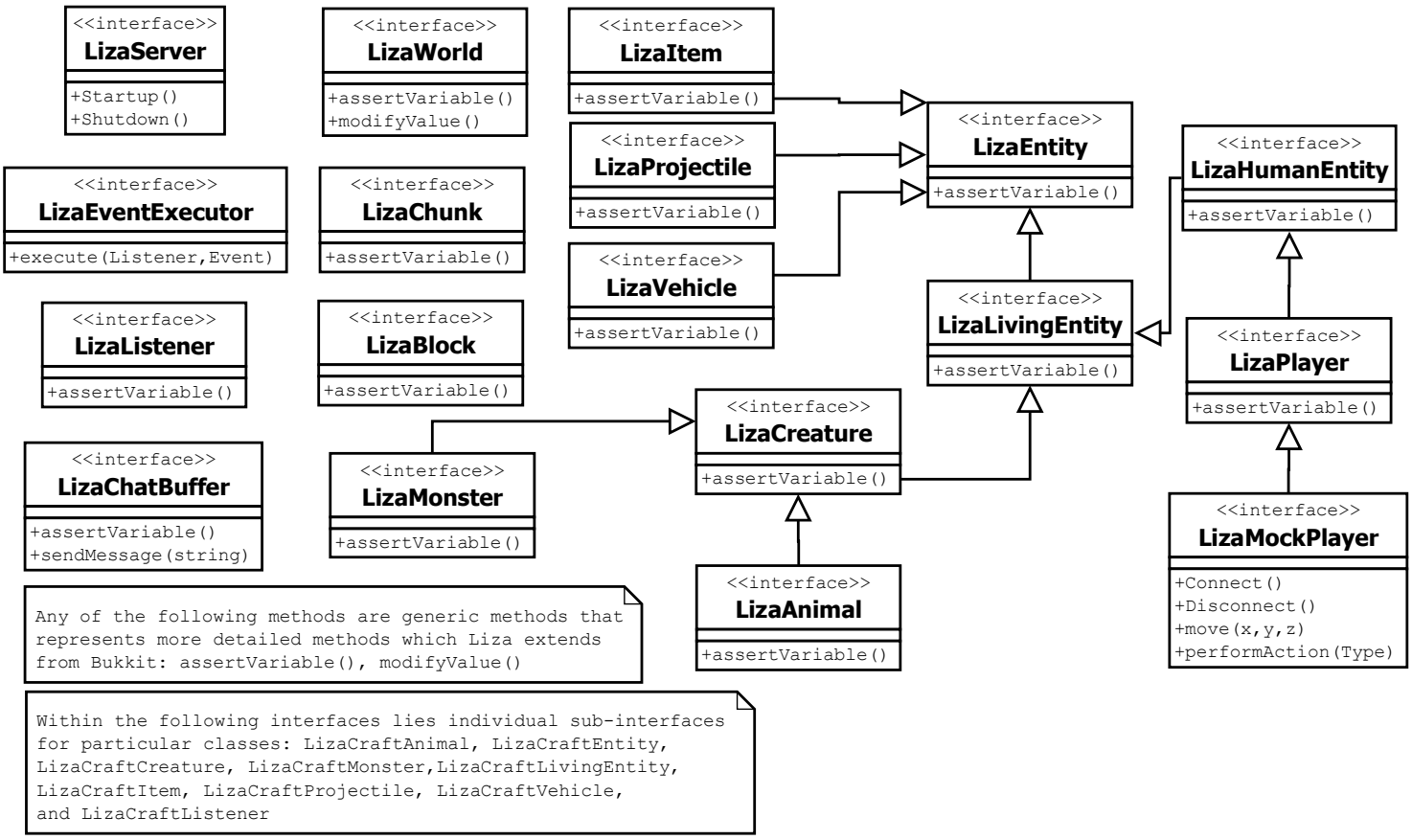
There are a few new classes, however. LizaMockPlayer and its associated implementation represent the automated player that the developer commands. LizaMockPlayer and LizaPlayer are separated because the latter asserts properties of any player, while the former controls only the automated player.

LizaListener and LizaEventExecutor handle the listening and spoofing of events, respectively.

LizaCraft Class Diagram



Interface Class Diagram



5 Prototype

The prototype for this milestone is currently availble on github online at https://github.com/geislekj/Liza