

Push-OFF!

Team Members:

Jared Press, Uri Soltz

Work Done:

Jared Press:

Jared Press has done most of the development of the project itself, he made all of the character subclasses. Jared Press also designed the Game Main class which manages the game and makes sure that the correct screen is loaded. Most of the code run while the players are live on the stage is actually located in the stage template which is what deals with the characters and the scoreboard classes. This provides an abstraction so that the main class doesn't need to know what's going on while a game is being played. Jared Press also designed and implemented the Shove, Kick, Upper Block, LowerBlock, and Push mechanics. He also created the falling of the stage mechanic which is what makes the game playable. Jared Press also designed all of the menu screens and selections processes.

Uri Soltz:

Uri Soltz has contributed slightly to the development by creating one character superclass which was then divided up into the other characters. Jared Press later modified and implemented this class and the subclasses. Most of the work Uri has done was the artistic and non programmatic work of the project thus far. He has designed the look of both Fat Man and Baby characters. He did most of the work on the video, much of the filming and all of the editing. He has also made the UML diagram. Uri attempted unit testing and did BDD testing. He also is the one who wrote up this document.

Changes and Issues:

To be honest the main issue is getting Junit to work with LibGDX for proper Unit tests. So far the testing has been manual and BDD testing to see if the functions behave under certain circumstances, this must change as soon as possible.

Patterns

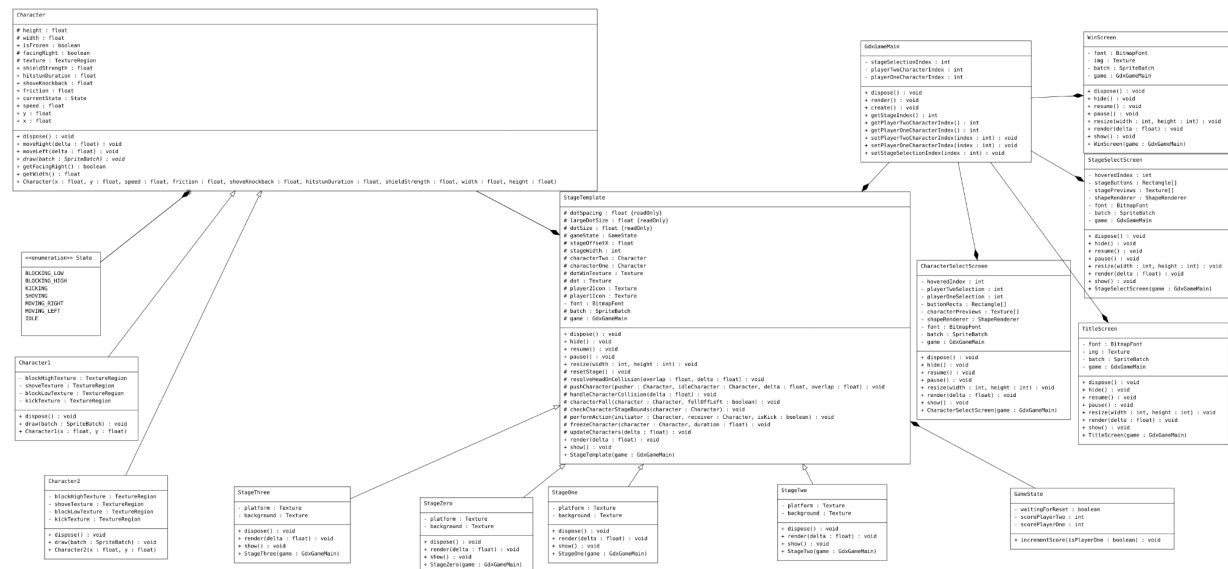
So far the main design pattern has been Inheritance. An example of this is in our character design where there is a superclass which manages all of the types of characters thus many of the repeated features only need to be written once. This was also done for the Stages where the Stage Template runs the game and each stage just loads the texture and stage size. It is so far the plan that once all of the characters are implemented the character selection screen will use a factory to generate the characters.

Test Coverage:

Manual Testing

Gradle			
Coverage Push-Off [run] x			
Element ^	Class, %	Method, %	Line, %
▼ csci.pushoff	100% (18/18)	85% (85/99)	93% (445/478)
▼ characters	100% (4/4)	78% (11/14)	92% (58/63)
Character	100% (2/2)	87% (7/8)	95% (22/23)
Character1	100% (1/1)	66% (2/3)	90% (18/20)
Character2	100% (1/1)	66% (2/3)	90% (18/20)
> screens	100% (11/11)	85% (59/69)	93% (363/390)
DesktopLauncher	100% (1/1)	100% (1/1)	100% (6/6)
GameState	100% (1/1)	83% (5/6)	90% (9/10)
GdxGameMain	100% (1/1)	100% (9/9)	100% (9/9)

Class Diagram



Class Diagram is missing two character classes as we haven't yet decided which characters they will be and what the properties will be.

BDD Scenarios:

Title Screen:

Does it show the background it is supposed to?

Is Everything rendered?

Does pushing the button lead you to the Character Selection Screen.

Does anything else happen that's not supposed to happen?

Stage Selection Screen:

Does every button lead to the correct stage being set in game.

Does anything else happen that's not supposed to happen?

Character Selection Screen:

Does each character get selected Properly?

What happens if the same character is selected? Is that allowed?

What if player 2's character is chosen first, does it still load the next screen.

Stage Template:

Update Characters

Are the characters updated correctly

What happens when multiple movement inputs are given?

Are all of the updates performed correctly

Freeze Characters

Are the characters actually frozen?

Perform Actions:

Does both kicking and shoving work as expected

Does the lower shield block only kicks or does it block shoves

Check Character Stage Bounds

Does the character always fall off when off of the stage?

What happens if the second character tries to jump off the stage after the first

Character Fall

What Happens if the second character tries to fall off

Handle Character Collision

Do any of the states, Shoving, Kicking ...ect cause issues with collision

Push Character

Do any of the states, Shoving, Kicking ...ect cause issues with pushing

Resolve Head on Collision

Do any of the states, Shoving, Kicking ...ect cause issues with head on Collisions

Reset Stage

Does the stage reset correctly no matter the character?

Future Plan:

The Future plan is to test this properly and fix any bugs that show up. The character selection screen will work correctly right now two characters are chosen by default no matter the preferences. Also the artwork will be changed. Shield artwork will be designed and the remaining two characters will be implemented.

Video:

<https://www.youtube.com/watch?v=WAQQNhvsqIU>

Github:

<https://github.com/jarednpress/Push-OFF>