

1. Title: Battle of the Elements
  - 1.1. Description - It's a fighting game about using elements such as fire, earth, wind, water, and so on to fight against a player.
  - 1.2. Copyright Information - N/A
  - 1.3. Version Number, author, date - Version 0.5, Fall2020
2. Table of Contents – Make sure this includes all the subsections to make finding material. If practical, hyper linking the document will help here.
3. Design History – This is a change listing quickly describing each major version and changes.
  - Characters
  - Environments
  - Animations
  - Audio
4. Team Roles:
  - 4.1. Bryan - Programmer & Sound Designer
  - 4.2. Quincy - 3d Modeling and 3d Animation
  - 4.3. Quenton - StoryTelling and level design.
  - 4.4. Joel - Lead level designer and environmental design
5. Game Inspiration:
  - 5.1. The Inspiration for this game were the Bloody Roar (series) and the Street Fighter (series).
6. Section I - Game Overview
  - 6.1. Game Concept - Close (and long ranged) Combat
  - 6.2. Feature Set - Movesets, Special moves, timed button presses, Frame data
  - 6.3. Genre - Fighting, Action
  - 6.4. Target Audience - Gamer, Teenagers to Adults, Rated M
  - 6.5. Game Flow Summary – How does the player move through the game. Both through the framing interface and the game itself.
    - Players will move in a 2-Dimensional space. They block by moving backwards and/or crouching.
  - 6.6. Look and Feel – What is the basic look and feel of the game? What is the visual style? - 3D level design, along with two three-dimensional

characters. Players at some point will have to feel and pretend they're actually in the game fighting their opponent. It can be either enjoyable, serious, or entertaining.

## 6.7. Project Scope – A summary of the scope of the game.

6.7.1. Number of locations - 1

6.7.2. Number of levels - 1

6.7.3. Number of NPC's - 1

6.7.4. Number of weapons - Body, Elemental power

6.7.5. Etc.

## 7. Section II - Gameplay and Mechanics

### 7.1. Gameplay

7.1.1. Game Progression -

7.1.2. Mission/challenge Structure -

7.1.3. Puzzle Structure -

7.1.4. Objectives – What are the objectives of the game?

7.1.5. Play Flow – How does the game flow for the game player

### 7.2. Mechanics – What are the rules to the game, both implicit and explicit.

This is the model of the universe that the game works under. Think of it as a simulation of a world, how do all the pieces interact? This actually can be a very large section.

Creature Meter:

Characters will have two forms, a human mode and a “creature mode”. The “creature mode” is only accessed from the “creature meter”. Every match starts in the character's human form. When the players are in human form, the meter gauge increases from the character's moves and combos, and damage given to the opposite player. On the contrary, if the player takes damage on creature mode, the meter gauge decreases and players lose their creature form when they are knocked down. Once the meter gauge is full, characters enter the “creature mode” giving them access to new moves (basic and special) and allowing them to have more varied movesets and combos. Characters can only use their super in creature mode.

Parry:

Parry is a mechanic that only the earth character can use. There are three different kinds of parries. Forward parry is done by forward input and timing on the attack, allowing the player to parry while standing. Crouch parry is done by down input and timing on the attack while crouching. Air parry is done by the up input and timing on the attack while in the air.

7.2.1. Physics – How does the physical universe work?

7.2.2. Movement

7.2.2.1. General Movement - Left, Right, Jump (Up), Crouch (Down), Dash (Left/Right)

7.2.2.2. Other Movement - Special dash (Quarter-Circle Forward/Backward command), Air dash, Double Jump

7.2.3. Objects

7.2.3.1. Picking Up Objects - No pick-up objects

7.2.3.2. Moving Objects - No moving objects

8.

8.1.1. Actions

8.1.1.1. Switches and Buttons - Six buttons (three punches and three kicks),

Punch/Kick Categories:

Light - Fast, but weak

Medium - Average, between Light and Heavy

Heavy- Powerful, but slow

8.1.1.2. Picking Up, Carrying and Dropping - None

8.1.1.3. Talking - Dialogue (Win quotes for example)

8.1.1.4. Reading - Yes, Missions

8.1.2. Combat – If there is combat or even conflict, how is this specifically modeled?

8.1.3. Economy – What is the economy of the game? How does it work?

8.2. Screenflow

8.2.1. Screen Flow Chart – A graphical description of how each screen is related to every other

8.2.2. Screen Descriptions – What is the purpose of each screen?

8.2.2.1. Main Menu Screen -

8.2.2.2. Options Screen - Volume, Brightness, Control Buttons.  
These selections will be on the screen in case players are uncomfortable with sounds, brightness, or their buttons.

8.2.2.3. Etc.

8.3. Game Options – What are the options and how do they affect gameplay and mechanics?

8.4. Replaying and Saving - Players can save their progress on Story Mode\*. They can rematch their opponents both in Versus Mode and Story mode.

8.5. Cheats and Easter Eggs - Story will reference other IPs (video games) Characters will also have taunts related to different characters from other video game IPs.

## 9. Section III – Story, Setting and Character

9.1. Story and Narrative - Specific details like scripts and cut scenes may not be in this document but be in the Story Bible.

9.1.1. Back story - There is an almighty being that uses a secret and dangerous element called plasma, which was released upon the world of elements. No one in history was capable enough to stop this threat. Special warriors from each element rise up with their goals, which includes defeating this dangerous threat.  
In the year 2030, a little country was developing land when they undiscovered an ancient land. As they dug out more of the land, a beam of light sprouted out of the ground and a surge of energy waves was spread out into the world. A new change in the world was added. Almost everyone within the world was given the power to control the elements. Each person has the ability to control one of the four main elements. Water, Earth, Fire, and Air. But unleashing the ancient power brought out the evil contained within it. Now, An evil emperor of the past has come back and wants to continue his reign of power and take over the world. It's up to you to stop his reign and contain the evil.

9.1.2. Plot Elements - Boss (including final boss), lore

9.1.3. Game Progression - None

9.1.4. License Considerations -

9.1.5. Cut Scenes:

9.1.5.1. Cut scene #1:

- 9.1.5.1.1. Actors - N/A
- 9.1.5.1.2. Description - Cutscenes in a grid based
- 9.1.5.1.3. Storyboard -
- 9.1.5.1.4. Script -
- 9.1.5.2. Cut scene #2:
  - 9.1.5.2.1. etc.

## 9.2. Game World:

9.2.1. General look and feel of the world - The world is very similar to Earth. The world will be realistic with fantastical elements.

### 9.2.2. Area #1:

9.2.2.1. General Description - Dynamic Summit. An old Island that harbors a volcano. People used to live here before they were forced to leave after the volcano became active here. Now people no longer live on this deserted volcano island and is now home of one of the ancient beings after being released from the tomb.

9.2.2.2. Physical Characteristics - Rugged landscape with cracked paths and rigid landscape. Around the mouth of the volcano the volcano starts to smoke as if it is ready to become active again.

9.2.2.3. Levels that use area - Selectable Stage in versus and training mode\*. Random level that can be chosen within arcade mode\*.

9.2.2.4. Connections to other areas -

### 9.2.3. Area #2:

9.2.3.1. etc.

## 9.3. Characters:

### 9.3.1. Character #1: Blaze Heart

9.3.1.1. Backstory - African American Male, born of the descendants of America's well known fighters Jenna and Wulf. Blaze was just brought into the world when the energy blast from the temple being unearthed struck everyone in the world including him. Growing up, everyone around him that he knew had powers that were impressive but blaze was bullied because his powers were not activated at all. Until one day, Blaze was

outside with his family when a fiery storm sprouted around them and a fire deity entered the area. He saw that blaze's power was limited and they decided to bless him with fire powers like his powers. Unlike most element users, including his powers, Blaze can control his fire abilities to do fireballs, fire jets and lots more. Now at 18 years old, he set out to enter the tournament to help save the place he calls home and start his own legacy as himself.

9.3.1.2. Personality - Very arrogant, rash, and prideful. However, he is kind-hearted and protects those he cares about.

9.3.1.3. Look: He has a toothpick on his mouth, wears a white Tank Top with a sweater around his waist, and a long pair of cut up jeans with a chain hanging off of it. He also has a pair of timbs. His hands are wrapped up after all the training he does in his spare time.

9.3.1.3.1. Physical characteristics - He has a scar on his face, Long-Hair and normal body build.

9.3.1.3.2. Animations - Similar to dudley from street fighter and vanessa from kof.

9.3.1.4. Fighting Style - His fighting style is boxing. He is a charged character.

9.3.1.5. Special Abilities -

Special Moves:

Dance up - Blaze enters into a stance in which he rocks side to side. In this stance he can attack out of it depending on the attack.

Dance Up : Strike! - Blaze lets out a straight punch towards the opponent hitting them.

Dance Up: Blow! - Blaze strikes the sides of the opponent causing a lingering hitstun in which can lead to a combo after the hit.

Dance up: Upper! - Blaze does a sway into a dash uppercut. Best To use for juggles and also is good to use for mixup.

Dance up: Cut!

Blaze does a sway into a dashing low attack.

Where ya going! - Blaze uses his flames to reel in his opponent closer to him. This move could be canceled after another special move but on block it is not safe.

Dome Check! - Blaze blesses the opponent's dome with an overhead punch. The light version is very fast but cant combo after hit.

Creature Mode:

When he enters creature mode, he creates a sea of fire, leaving the opponent losing health passively from his attacks. The sea of fire lasts for a few seconds.

9.3.1.6. Relevance to game story - Blaze is the main character of the game.

9.3.1.7. Relationship to other characters - X is his rival. X wants to beat Blaze and his family to use that fame to help her get out of the slums of Brazil and bring her family a new lifestyle. Blaze secretly likes her but doesnt let her know.

Ivar wants to capture blaze and his family for testing at the USAG Facility

Dreldonda seeks blaze's help in understanding the world.

9.3.1.8. Statistics -

9.3.2. Character #2: X

9.3.2.1. Back story - X is a 21 year old who was born in Brazil and was five years old when she was hit with the energy waves.

9.3.2.2. Personality - X is chill, relaxed, outgoing, and friendly. However, when the time comes, she can be very strict and even harsh.

9.3.2.3. Look:

9.3.2.3.1. Physical characteristics - She wears a red shirt in a blue jacket. She also wears sweats. Her body type is flexible, mobile.

9.3.2.3.2. Animations - Similar to Elena from Street Fighter

9.3.2.4. Fighting Style - Her fighting style is capoeira. She is a motion character.

9.3.2.5. Special Abilities -

Special Moves:

Hydro Dance: X performs a break dance, hitting the opponent twice. The move has a follow up second hit which knocks them down.

Spiral Waves: X performs four air kicks at the opponent. This is her DP, which means it is invincible to any attack, but also leaves X vulnerable to any attack.

Sli'd Knee: X performs a sweep onto the opponent. This move can follow up into an attack throw, which she throws the opponent in the opposite direction. This move can also go through projectiles.

Waterworks/Downpour: X uses her kick to create a small water projectile. This projectile can be projected either low or high (which is an overhead), mixing up the opponent. The projectile's distance can also be altered.

Creature Mode:

She enters a primal stance, where her attacks hit double. She can charge up energy and when full, releases a giant wave.

9.3.2.6. Relevance to game story -

9.3.2.7. Relationship to other characters -

9.3.2.8. Statistics -

9.3.3. Character #3: Ivar

9.3.3.1. Back story - Ivar lives in a very strict, militaristic lifestyle. Both his parents were in the German military, and they took him to the USAG facility. There, he was trained in combat and was given false memories to ensure his loyalty. He was part of a group of soldiers, who were put in a "Elemental Genetics" program, where they were experimented in various ways using the planet's various energy sources to make them biogenetically enhanced. The experiment was successful, and Ivar gained Earth powers.

9.3.3.2. Personality - He is a German man of great structure and power. He is goofy and funny, at least he tries to be. He is strict and military-like. He is strategic and doesn't accept failure.

9.3.3.3. Look:

9.3.3.3.1. Physical characteristics - He wears a German Military outfit, has long hair, and a grown out beard. He lost his eye, which looks like a scar with a diagonal line.

9.3.3.3.2. Animations - Similar to Zangief from Street Fighter

9.3.3.4. Fighting Style - His fighting style is wrestling.

9.3.3.5. Special Abilities -  
Special Moves:

Creature Mode:

When he enters creature mode, he gains armor on some of his moves, he can bring his opponents towards him.

9.3.3.6. Relevance to game story -

9.3.3.7. Relationship to other characters -

9.3.3.8. Statistics -

9.3.4. Character #4: Drelzona

9.3.4.1. Backstory - Drelzona was part of an ancient group that was sealed inside a temple due to its powerful magic that was deemed dangerous. 1000 years later, a traveler explored and dug up the remains of the temple, only to discover the seal Drelzona was in. The seal was broken, and everything in that seal was released, Drelzona included. After being released, she decides to travel the world to understand it. She is 22 years physically, but 1000 years mentally and spiritually.

9.3.4.2. Personality - She is very perceptive of people and tries to understand the new world. She is mother-like and is calm and collected.

9.3.4.3. Look:

9.3.4.3.1. Physical characteristics - Her body type is slim, and sexy. She has long hair, white, and wears glasses. She also wears revealing clothing such as thigh highs.

9.3.4.3.2. Animations -

9.3.4.4. Fighting Style - Her fighting style is elegant and simple. She is a rush-down and technical mix.

9.3.4.5. Special Abilities -  
Special Moves:

Creature Mode:

When entering creature mode, she is able to push and pull in the opponent. She is also able to create an air barrier that makes her take less damage for a short period of time.

9.3.4.6. Relevance to game story -

9.3.4.7. Relationship to other characters -

9.3.4.8. Statistics -

## 10. Section IV – Levels

10.1. Level #1:

10.1.1. Synopsis - Various locations

10.1.2. Introductory Material (Cut scene? Mission briefing?) -

10.1.3. Objectives - Defeating your opponent

10.1.4. Physical Description -

10.1.5. Map -

<b>Gale Sunset</b> (unofficial name)		
<b>Stranded City</b> (unofficial name)		

<b>Mt. Forest (unofficial name)</b>		
<b>Cherry Blossom Forest (unofficial name)</b>		
<b>Volcano (unofficial name)</b>		
<b>River (unofficial name)</b>		

10.1.6. Critical Path - N/A

10.1.7. Encounters - Fighting opponents

10.1.8. Level Walkthrough - windmill (gale sunset), city desert (stranded city), giant mountain (mt. forest), volcano, river

10.1.9. Closing Material -

10.2. Level #2:

10.2.1. etc.

10.3. Training Level - Player vs. dummy, combat tutorials

## 11. Section V - Interface

11.1. Visual System:

11.1.1.HUD - Health Bar for player and opponent will be on top, round number will be top middle, special meter will be bottom left and right

11.1.2. Menus - A pause menu. Title screen. Main menu.

11.1.3. Rendering System -

11.1.4. Camera -

11.1.5. Lighting Models - Directional lighting

11.2. Control System – How does the game player control the game? What are the specific commands?

11.3. Audio -

11.4. Music -

11.5. Sound Effects -

11.6. Help System - Tutorials combat, controller

## 12. Section VI - Artificial Intelligence

12.1. Opponent AI – The active opponent that plays against the game player and therefore requires strategic decision making (example, Civilization or Chess, how is it to be designed?)

12.2. Enemy AI (Villains and Monsters) -

12.3. Non-combat Characters -

12.4. Friendly Characters -

12.5. Support AI:

12.5.1. Player and Collision Detection - Each character and their attack moveset will have various hitboxes and/or hurtboxes

12.5.2. Pathfinding -

## 13. Section VII – Technical – This may be abbreviated with most in the Technical Bible.

13.1. Target Hardware - This game is intended to be played on both PC and console. Players will be able to control their character via keyboard or a compatible game controller

13.2. Development hardware and software -

Our sound designer will be developing the music and sound effects on FMOD.

Our 3D artist will create the characters and stages using Blender

- 13.3. Development procedures and standards -
- 13.4. Game Engine - Unity
- 13.5. Network - As of now, this game will not be utilizing network features.
- 13.6. Scripting Language - We will use Unity's built in scripting system, which is coded in C#.
- 13.7. etc.

14. Section VIII – Game Art - This may be abbreviated with most of the content in an Art Bible.

- 14.1. Concept Art - Character portraits, basic environments, “Creature mode” visual effects and sound effects
- 14.2. Style Guides - A mixture of realism and fantasy. Games such as Soul Calibur and Tekken.
- 14.3. Characters -
- 14.4. Environments - Environment layout for each terrain. Particular assets selective for each terrain
- 14.5. Equipment - Unity (Terrain setting, layer, effect list, lighting, post-processing, assets)
- 14.6. Cutscenes - Opening cutscene
- 14.7. Miscellaneous -

15. Section IX - Secondary Software

- 15.1. Editor - We'll make edits on our environments on the Unity software
- 15.2. Installer - The Unity build system is necessary to release our product to sources such as ich.io and later Steam
- 15.3. Update software - The Unity launcher is necessary to download and update the current state of our game

16. Section X - Management

- 16.1. Detailed Schedule -
- 16.2. Budget -

Game Development Teams: Bryan, Quenton, Quincy, Joel	Number of Crew Members	Number of hours each	Total Person Hours a Day	Labor Rate	Cost
Programmers & Testers	4	4	8	\$22.50	\$180.00
Game and Level Designers	2	5	7	\$22.50	\$157.50
2D/3D Model Designers	2	4	6	\$22.50	\$135.00
Project Manager	1	3	4	\$22.50	\$90.00
Sound Designer & Audio Manager	2	4	6	\$22.50	\$135.00
Narrative Designers & Scriptwriters	4	5	9	\$22.50	\$202.50
Marketing	1	4	5	\$22.50	\$112.50
Project Director	1	4	5	\$22.50	\$112.50
		Subtotal:	50		\$1,125.00
		10% Contingency:	5		\$112.50
		<b>Total:</b>	55		\$1,237.50

16.3. Risk Analysis -

16.4. Localization Plan -

16.5. Test Plan -

## 17. Appendices

17.1. Asset List:

17.1.1. Art:

17.1.1.1. Model and Texture List -

- Terrain
- Trees
- Water
- Grass
- Dirt
- Rock
- Sand

17.1.1.2. Animation List -

17.1.1.3. Effects List -

- Particle System (energy, elements, powers and abilities)
- Terrain effect
- Depth of Field
- Motion Blur
- Smoke

17.1.1.4. Interface Art List -

- 17.1.1.5. Cut scene List - intro, opening cinematic, ending cinematic, credits
- 17.1.2. Sound:
  - 17.1.2.1. Environmental Sounds - Giant rivers, lavas, explosion volcanos, sands, fire, water, grass, wind
  - 17.1.2.2. Weapon Sounds - Element sounds (Water slice, small earthquake, flamethrower, wind whistle)
  - 17.1.2.3. Interface Sounds - Short and quick sounds
- 17.1.3. Music:
  - 17.1.3.1. Ambient - Low droning sounds (Wind, waterfall, machinery)
  - 17.1.3.2. Action - Punch, kick, grunts, sliding
  - 17.1.3.3. Victory - Song ending at a high pitch, triumph sound
  - 17.1.3.4. Defeat - Song ending at a low pitch
- 17.1.4. Voice:
  - 17.1.4.1. Actor #1 lines - No voice lines
  - 17.1.4.2. Actor #2 lines - No voice lines
  - 17.1.4.3. Etc.

\* Note that these ideas isn't going to be in the final project\*