Game Overview

## What do I need to cover?

1. The game idea
2. The game style
   1. Graphics
   2. Camera
   3. Environment
   4. Characters
   5. Interactions
   6. Level
3. What message are you going to portray? (Theme) and (How)
4. What gameplay features/elements will make this game fun?
5. What are the different stages of development?
6. Vertical Slice?
7. Time Limits & Planning?

You can add more, if you feel like you need to…

## The Game Idea

The game idea, is that you are in a pre-civilisation era when humans lived alongside mythical / fantastical beings but the humans mistreated the kindness of the mythical creatures and one of these tortured beings was a witch. Who’s mother was killed by humans in front of her and she was abused as well, and she raised an army against the humans to take this planet for themselves. You are on the losing side, so you are asked to go with a friend across the vast expanse of the forest in order to plant a device strategically to disable the portals that keep transporting forces from all over the world. You set out on a journey with your friend, meeting new people, buying new things with looted cash, using advanced stealth and combat to move around and reach the enemy base.

You may need to remember that, your game does not include survival (so no sleeping bullshit). If you can’t do that then you have to make sure every second of the game is interesting.

## The Game Style

### Graphics

* The graphics of the game will be low poly but will have many stylistic elements such as ambient occlusion, volumetric lighting, smooth shadows, blooming etc..

### Camera

* The camera will be a camera that orbits the player through mouse and looks down at the player at all times, the camera can be manipulated by the environment/situation/cut-scene or by forced action such as aiming.

### The Environment

* This is an aspect of the game I really want to **nail**, the development of the environment is the biggest story teller in my game. It will have the marks of wounded creatures, telling the story non-verbally. It will be an **epic** scenery of [*www.artstation.com/shant*](http://www.artstation.com/shant)with imaginative worlds combining together into one big epic world.
* The world will be littered in foliage, but the performance overhead will be big, so I need a way of proceduralising grass and all of those objects to appear during run-time, instead of being placed there. I think I may have data (Vectors) stored in a text-file for each sub-region and the elements are just called in when required.

### The Story

* The story will be conveyed without words, but the story will be there. Short cinematics sequences for example the epic scene where Aiden catches the eye of Destiny and see’s the pain and hurt that the humans caused her. The cinematics of her life play…

### Characters

* This is important, I need to convey as much emotion with as little detail and to do this I believe I will go with the style of the game *Ashen* with minimalistic characters, but a bit of facial features but no eyes or mouth.
* Their character animations are a bit slow with a lot of delay and I don’t like how that operates, I want smooth movement that is controller driven and not animation driving which I think what Ashen really is. I want my game to be way more environmentally friendly.

### Interactions

* In order to keep the gameplay interesting, there must be a lot of things you can pickup, interact with, solve problems with, many enemies to keep you company. But I don’t want pointless enemies just scattered around. Each enemy/object/interaction serves a purpose either to gameplay, story or the level.
* The level has to make sense with the objects and enemies placed there, you can trade objects with people so looting and taking things may be advantageous.

### Level

* The level design has to be strategic and always serve a purpose to the story or help the player get ahead in some way, which is important.
* The design of a level is a blend between enemies, NPC interactions, objects, puzzles, stealth and object management, but the complexity of stealth is the best part of this game, it actually is the stealth that makes the game tick.

## What gameplay elements will make this game fun?

### Essentials Mechanics :

* Stealth Mechanics
* Responsive Player Movement
* Environmental Traversal
  + Gliding
  + Ledge Climbing/Parkouring
* Responsive NPC Behaviour
  + Enemies
  + Helpers
  + Pathfinding
  + Decision Making
* **Fluid Combat System**
  + **Different Attacks and Animations are Dynamic and In The Moment**
* Story embedded into the game + cinematic system **(Event System)**
  + If you can make a game that has beautiful story but not as technically impressive then you have a winner on your hands as well.
* Inventory / Object / Looting / Currency / Trading / Interaction
* **Open World**
* The relationship between your friend and you and the way you bond together should be the USP of this game…
  + Communication with friend / Directing and Giving Orders (Menu, Enemy Targeting)
* Dialogue System
  + Beautiful UI for the dialogue (get imaginative)

## Structure of Game Development?

### How is each mechanic going to be handled?

* Open world
  + World building editors
  + Optimisation
  + Foliage/Rendering
  + Job System
  + Brainstorm what you need and how you will break this up
* Stealth Mechanics
  + Distractions
  + Looting & Sneaking
  + Disguising **(may be a bit harder)**
  + **Tracking (Track behaviour, routines)**
* NPC
  + Behaviour Trees
    - Pathfinding Embedded (Terrain based)
      * Heap optimised
    - Using the Job System to carry out commands
  + Sensory Data & Responsiveness
  + Very smart following behaviour
* Responsive Player Movement
  + Rough Terrain Traversal
  + Basic Movement Features Completed
  + Making sure that it is optimised and doesn’t fall through the ground ever
* Environmental Traversal
  + Build after the player controller, dynamic ledge climbing
  + Parkouring
  + Gliding Systems
  + Physically Based Movement
* Fluid Combat System
  + You will brainstorm ideas for making this good
  + How will your counteract?
  + How you will attack?
  + Making realistic guns, combat simulations
* Creating the dialogue system
* Inventory System
  + Making a very nice UI like in Assassins creed for inventory system
  + Nice inventory System management
    - Sectioned Off
  + Allowing for pickups
  + Creating a trading system between NPC’s
* **Editor Scripting**
  + The Render Pipeline manager
    - Whenever an asset is imported, you will drag and drop it in
      * It will automatically detect objects based on naming conventions and build LOD’s
      * Tag the object and assign layers
      * Type of object assigns scripts, Rigidbodies, importance factor (index 0-10)
        + Importance factor determines what can be removed when optimisation is required for lower end PC’s
* Friend NPC manager
  + Using behaviour editor to create new custom following type
  + Managing orders
* Spawning and Event Systems

## What is required inside the Vertical Slice?

A playable game without many design elements… (No animations, designs, etc…) Everything will come from here.

An open world demo of the game with spawning in enemies, regions, foliage. Everything like the original game would do, dynamically pushing in stuff through scene manager. There is no animations, highly detailed models, level design during this vertical slice test. You can still traverse the environment perfectly, the camera still moves to manage the environment. You can kill, move, survive, trade, interact with objects, interact with your friend, test out stealth elements, basically the entire game. The only thing you will have to implement from here is the complex animations systems, hopefully which will go nicely along with your pre-existing code. You will need to create the levels, new foliage models, create the audio, UI etc… You can play a test level with enemies that you can kill and progress with a simple mission system telling you to do simple thing, you can pickup items and equip trade etc.. This game is meaningless without a story though, it needs to be compelling like Aiden and Destiny fall in love and a twisted ending like Aiden’s friend is actually plotting against you. Destiny has to be beautiful. We also need basic cinematics.

## Different Stages of Development

### The Stages

* Mechanic Development
  + All Core Mechanics Completed
  + Open World Generation w/ Preview Assets Completed
* Asset Development
  + Graphics Assets
    - Environmental & NPC/Player
    - Animations for Players/Environments/Guns/NPCS
      * Animation blending & Code Bases
      * Inverse Kinematics for Animations
    - Foliage
    - Drops/Objects
    - Lighting Everything in the Scene
    - Creating UV Maps/Light Maps
    - Creating the LOD’s for all objects
  + Audio Assets
    - Developing the music/environmental music
    - Creating the sound effects for everything
    - Creating an audio machine
* Adding other features
  + Nice to have features
* Polishing
  + Post Processing
  + Shaders
  + Volumetric Lighting / Particle Effects
* Optimising
* UI Development

### What each stage contains

1. Writing all the systems + story / scripts in the game (ex. locomotion, ai, movement) – 4 months
2. Designing the world (World, Player, Enemies, Shaders, Materials, UV Maps, Normal Maps) – 3 Months
3. Animating and Stitching together with the scripts – 1-2 months
4. World Design (Placing and positioning everything and building the entire world from a map) setting up pathfinding, marking out locations where events occur, setting up the optimisation of the world, setting up perlin noise and world generation, setting up horde movement throughout the world + proper interactions … – 1 month
5. Lighting and Graphical Effects – encompass light probes, reflection probes, GPU Instancing
6. Adding the story and cut scenes to the end result (all event systems all dialogue systems) implementing the story and adding gameplay cores such as missions and directives. So basically the game is constructed in this phase. Until before all the game was just gathering bones now we will throw it together. – 1-3 (Communication and dialogue systems) months
7. Making the game work from start to finish (Event Systems and Spawning Management) – 2 months
8. Post Processing and Particle Effects + Touch-ups – 2 weeks

Additional Features based on Story :

* NPC’s pathfinding w/ animation & pre-defined actor to be destroyed

## Story

The story of this game is extremely emotional and inter-woven throughout the entire gameplay. You and Ethan are the last line of defence for the great human army defending it’s citizens from the lurking fantastical creatures who have had enough and are finally coming for the humans world. Leading them is a treacherously beautiful queen Destiny as a child she was abused, bullied, thrown in jail and her mother (only mother) was killed for no reason. She turned bitter against all humans and decided to turn this world into her own and kill all humans, *there is good in her*.

When she wages war, the top commanders (you included) set up a massive wall that borders the kingdom where Destiny was brought up, her first conquest as this is the most powerful kingdom in all of the world and if this kingdom falls the rest of the world will bow down to her. The game starts with you guarding the wall, looking over the horizon you see a small object coming towards the wall – it starts gaining pace and fast and faster, the trees start getting knocked over and soon it flies into the air and you see a stampede of killer night wolves and a phoenix like dragon take off into the sky and block out the sun. It is beautiful but you don’t have time to react as the wolves being 1/3 the size of the walls start to break them. You get knocked over and go unconscious, when you wake up you see the last mega spear pierce the dragons skin. Someone runs up to you and says ‘Aiden are you okay…’ and he says ‘General wants to see us…’

I need to present dialogue in an useful and interactive way. Like speech bubbles coming out of their mouth… or just text appearing next to them and floating to the character that it was intended for.

You walk to the top of a large tower, witnessing the destruction and chaos on the wall, hundreds of dead soldiers, wounded soldiers getting carried off***\**** When you walk up the tower, you see an entire portion of the tower missing and just open. This is where you can witness the vast scenery of the world, when you reach the top you are met with the general, the one leading it and currently losing it. Next to him are the 5 other world class generals together at this meeting, the explain the situation of how Destiny is bringing massive forces like these through with the help of her portals that can bring creatures through from other dimensions. Then he introduces you to a boy that is roughly 15 years old, his name is Ethan Hunter and he is an inventor and he found out how to create a complex bomb that will shutdown these portals, but only he knows how to properly work it and there isn’t enough time for him to teach you. So the generals decide that he will travel with you (because you are the best fighter), to the other side of the forest to plant these bombs and then the human army can strike, but if you take longer than 3 weeks to deliver the bombs then the next attack will happen and the army will not be able to sustain.

You go down to the armoury and collect many weapons, a stash of coins, some armour, some stealth devices some cool tracking hardware and the kid get’s his weapon of choice as well which is a bow and arrow. This is where the tutorial starts – you will get some shooting practice, some guards will come at you and you can practice for as long as you like. The guards will line up to fight you and you have to take them into submission, you do not have to kill them. At first the boy and you do not talk much, just small talk and then he opens up a about himself.

‘That scene where you are pushing through the crowd and destiny is walking down the isle looking all powerful you will catch her eye and the camera will go into her eyes and display her entire life story…’