Game Design Document

Cling To Life

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Batch – Weekend

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GAME DESCRIPTION

This 3rd person interactive 3D simulation game provides the player a hands-on training on wilderness survival. The player is dropped in the middle of the wilderness and the player is given some basic tools and resources to survive and escape using basic survival techniques. The ultimate goal is to escape from the wilderness by using the resources obtained by the player. The player's survival skills is put to the test under different environments such as Jungles, Deserts, Sea, Arctic regions.

Design Goals

The game aims to achieve the following goals:

- To give the basic knowledge of using different kind of techniques and resources to survive under different environments such as Jungles, Deserts, Sea, Arctic regions.
- To improve the practical skills of user to use different techniques to survive.
- To improve the problem solving skills of user.
- To enjoy the gameplay as a real adventure type of game.

Influences & Sources

We have gathered resources from educational programs such as Discovery channel and National Geographic channel which influenced us for developing this game. The story and the gameplay are designed by us and the practical scenarios and survival techniques are based on real survival courses and programs. We have also studied some similar type of games such as The Forrest, DayZ, Resident Evil, The Long Dark, Don't Starve, Last of us etc. We have also researched through some wilderness survival guides, hand books, and outdoorsman books in order to gain some good knowledge in this area which will allow us to design the game in a more practical and an educational manner.

Target Market

Our ideal user has the following characteristics:

1. Male or Female;

2. 12 to 30 years old;

3. Likes games;

4. Anyone who is interested in Adventures and learning survival techniques.

Although young males are the primary targeted user, the game at its fundamental level has a more universal appeal.

FUNCTIONAL SPECIFICATIONS

Game Mechanics

Core Game Play

This is an open world game where player can move freely around the environment and find resources and places that are useful for the survival of the player. The actions of the player includes finding foods, getting through barriers and obstacles, make tools and equipment using the resources found in the wilderness that helps in escape of the player. The help tips and objectives will be provided to the player therefore he must accomplish those objectives in order to survive.

Game Flow

Actions that the PC can perform are,

1. Move forward and back
2. Turn left and right while moving
3. Jump up, jump down
4. Climb up, climb down
5. Crawl
6. Attack / Destroy
7. Perform Special Actions

Characters / Units

- Rick (Main Character) – A former military officer who has firsthand experience in combat and survival. Middle aged, have High strength and health can perform many actions.
- Animals – Wild animals some are dangerous and can attack the player and player needs to attack them in return. And some animals are too fierce and can't be fought therefore player must avoid them or escape from them.

Game Play Elements

Interactive game elements:-

- Health recovery items – Herbs that can heal wounds or food that can increase strength.
- Obstacles – Some obstacles must be moved and some must be destroyed by the player.
- Tools – Tools that are going to be useful when performing some actions.
- Objects and Items – There are some objects that player needs to find and use.

Other HUD Indicators

- Player's Health – Bar that represents the health status of the player. It will decrease when player get injured or hungry and t will Increase when player use herbs and food.
- Mission Objectives – Objectives that player must accomplish in order to achieve the final goals.
- Item indicators – Shows an indicator on top of the item when player can interact with it.
- Tips and Clues – Player will get some helping tips and clues to accomplish objectives.

Game Physics and Statistics

- Player can move freely in 3D space in every direction and roam the open world landscape.
- Player can move slowly by walking or move fast by running.
- Player can jump up high in to different platforms or jump down from higher platform to lower platforms.
- Player can climb some surfaces such as rocks, hills or vines.
- Player can fall down from higher platforms. Gravity is applied.
- Player can push and move some objects and lift some objects.
- Player collides with hard surfaces and goes through soft surfaces with some resistance based on the object's mass.

Artificial Intelligence

- Harmless animals can appear at random positions and pass through without harming the player
- Some animals are positioned in specific places and Player can interact with them
- The animals will notice the player within some distance when the player approaches them
- The behavior of the animals will vary based on the how close the player is to them
- Each type of animal will have their original personalities shown in order to make this game realistic.
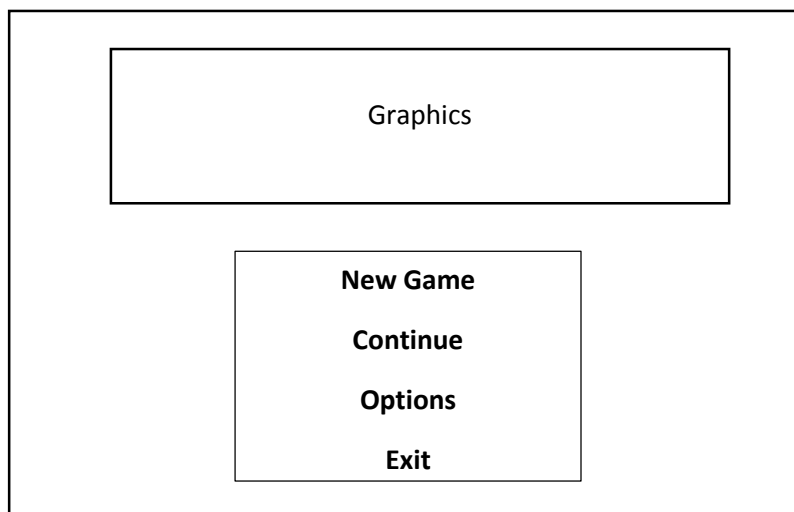
User Interface

Functional Requirements

- The game is controlled by Mouse and Keyboard
- Main Menu – provides the user with choices that he can make in this game such as – New game, Continue, Missions, Options, Quit
- Checkpoint : if user wishes to stop playing in the middle of the game then user is able to continue form the last checkpoint
- The game will feature music and sound effects which are crucial for the gameplay and user experience
- The game must feature next level screens at the end of each level
- Heads Up Display – must contain the 3rd person view of the player, health bar, status, objectives, tools and tips.

Mockups

- Main Manu

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- Exit

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- Game Play
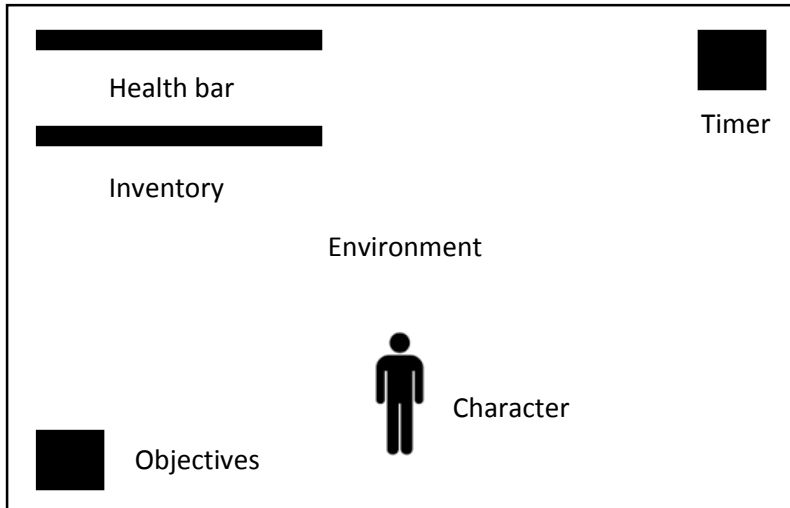
GUI Elements

- Health bar – Displays Player's Health

- Timer – The time elapsed when playing the game

- Objectives – Display the state of completed and uncompleted objectives and tasks

- Tips and clues – Textual tips are displayed for the user

- Inventory – Items that has been collected by the user

- Status messages whether player has failed or succeeded must be displayed

3D Graphics and animations

- Main character is a rigged humanoid 3D model with textures

- All the animals used are rigged generic 3D models with textures

- Sky – Day Skybox is used

- Terrain – Contains hills and level fields

- Trees, plants and grass are designed using tree creator of unity and gained from the unity asset store

- Water with ripples are used

- Stones, cliffs, dirt and other environmental graphics are used

- Tools, other equipment and weapons 3D models are used

- Animations system is implemented using Mecanim animation software in Unity3D

- Player Animation States – Idle, Walk, Run, Jump, Climb, Crawl and other Special Actions

- Animal Animation States – Idle, Walk, Run, Attack, Bite etc…

Special Effects

- Fire, Smoke, Explosion and particles

- Mist

- Blood

Sound and Music

Overall Goals:

The player is trapped in a forest therefore ambient sounds of the forest must be heard with sound of the animals and from time to time background music must be played that indicates the mood of the player and type of the situation. The feeling of the situations must be enhanced by the sounds and music aspect of the game. It should emphasize the overall theme and meaning of the game and situation.

Sound FX

GUI element interactions must be indicated with proper sound effects. Each action performed by the character and each time the character interact with real-world objects simulated in the game must be indicated with proper sound effect in order to provide the user with a more realistic feel to the game. The user must feel as if they are in the same position and body of the main character. The real feel that the user gain and the actions performed under each situation must be accurately simulated by the game. Sometimes the character make sounds from his mouth that indicates that he is excited, exhausted, hurt, happy, scared etc… The emotions must be expressed by sound effects that the user can relate to the character's emotions and situations.

The sounds of the animals are important especially when the animal is a fierce animal and the sound of the animal must indicate that it's harmless or harmful to the player.

Music and sound FX assets

➢ Ambient Sounds
- Forrest ambient
- River/Stream ambient
- Wind ambient

- Player Sounds
  - Scream of Fear
  - Scream of pain
  - Scream of Joy
  - Tired - Breathing heavily
  - Footsteps
  - Other actions

- Animal Sounds
  - Growl
  - Roar
  - Chirp

Story

Player is travelling in a jet and due to an engine failure the plane is crashed to the ocean near an island. The character was able to jump from the plane just before it crashed. Therefore he was able to save his life and the only logical option was to grab hold to some rubble from the plane and float towards the island shores. From that point onwards the story unravels and 'Rick' the main character must survive this island on his own and find a way to escape from there as soon as possible. Rick is able to use some equipment that's going to be float to the shores from the plane crash debris.

Player Characters

Rick - is a former military professional who was travelling to his home after completing his final mission in Middle East. Unfortunately his final mission is yet to come when he gets trapped in this forsaken island alone and must find a way to escape all the dangers that come towards him. He must use all his knowledge of surviving and his training to overcome these dangers and obstacles.

Story Theme

The main theme is surviving the wilderness using character's survival techniques and overcome all the obstacles and dangers that the player must face.

Visual Theme

An island surrounded by ocean that has a deep dark forest and fierce animals.

Story Outline

- The forest does not allow the player to move freely because of all the obstacles and dangers. The path is not straightforward therefore the player has to make his own path to reach his goals.
- Logical and practical thinking is required when finding a solution to escape.
- The player sometimes get trapped in dead ends when he gets chased by some fierce animals therefore he must quickly come up with solutions to escape.
- The game has some specific objectives that player must accomplish in order to achieve some tasks. Such as find some items, reach some place.

- Sometimes player won't be able to escape from animals and therefore must confront them; this is where his combat skills and strength comes into play.
- The player has all the skills to escape but he needs to think smartly to escape the forest.

Level Requirement

The story has two parts which takes place in two parts of the island, after finishing the first part the player moves on to the next level - second part of the island.

1. Level 1 – Escape the forest part 1
2. Level 2 – Escape the forest part 2

Technical Specification

- Game Engine – Unity3D - Unity is a flexible and powerful development platform for creating multiplatform 3D and 2D games and interactive experiences.
- Platform and OS – This game is specifically designed for PC and the operating system is windows.
- Programming language – JavaScript
- Game Objects
  - Player
  - Animals
  - Camera
  - Triggers and Colliders
  - Items

References

https://www.scribd.com/doc/222298082/Arcana-Project-GDD

http://www.discovery.com/tv-shows/man-vs-wild/