Game development software engineering process and surviving in tough situations

Entertainment, Video Games

In a fast-growing field of software engineering and game development we are developing a single player first person survival game based on Unity 3D. This game reflects the idea of SpaceX mission which is about making human life multiplanetary – They aim to launch space ship in near future with a team to survive on mars and make life possible out of earth.

The purpose of this project is to assess the state-of-the-art research on the game development software engineering process and give awareness to audience about surviving in tough situations.

Introduction

The advent of technology has created general interest among adults in the world of gaming. Analysts have concluded that the gaming industry saw an astounding rise of 10. 7% within a year in 2017. Catering to our appeal and realizing an opportunity in the field, we propose to create an environment suitable to that demographic and to have hands on experience in the world we will create. One of the most popular and well-known genres of gaming is open world first person survival. It encompasses in the player the ability of truly seeing the world we aim to give experience to people how to live a life out of Earth.

Problem Statement

Developments in gaming and computer graphics have laid low on the radar in Pakistan for decades. Gradually, awareness and innovation have caused a rise in the demand for such developments. According to a report, Pakistan employs more than 25, 000 people in software exports, and a rising number of them are making inroads into video game development. Gaming Industry

in Pakistan is limited only to game development for smart phones. There are no PC's, console games released here except for one i. e. Cricket Revolution released in 2009. There are a few known studios such as Mindstorms, Kwick Games, Caramel Studio and Game View but that's it. In Pc games there is a lot of game genre, one which became popular in last five year is the open world first person survival, but from last year its popularity is declining day by day. Reason for that is the similarity of game plot and game core mechanics in survival games which leads to the player's boringness and interest in the game..

Problem Solution for Proposed System

The proposed game intends to provide a product that will promote pc game development in Pakistan and also allow us to learn game development process which includes game design, character and world modeling and physics base coding. The best pc game genre right now is open world first person survival because its popularity is decreasing gradually from last year. It's a challenge and opportunity to prove our self. To increase the popularity of survival games what we really need to do is to introduce the new open world survival game with unique and brand-new game plot and game mechanics to the market so that players don't feels boring and uninterest in game, engages them hard. Like the survival game on Mars, in this game user tap memories of previous life to craft stuffs, find food, shelter, build plants and stay alive as well as reveal new secrets to explore.

Advantages/Benefits of Proposed System

The following are the benefits of developing our game:

- Enhance creativity among the people in Pakistan

- Enables the mind to work in multiple dimensions and increase their ability in decision making and critical thinking.

- It helps users to enhance their performance in managing multitasking.

- The Previous games on survival are just about survival on island and forest etc. They all have same plot and flow, so our proposed system is unique our game will solve fundamental problems of its spiritual predecessor remains to be seen.

- Previous games on survivals are not free to play so this game is desktop-based free for all.

Scope

In Single player survival games. the world is generated randomly so that players must actively search for food and weapons, often provided with visual and audible cues of the types of resources that may be found nearby. Where players generally begin with minimal equipment and are required to collect resources, craft tools, weapons, and shelter, and survive as long as possible.

Open world survival games have no levels and progress mission status so gamers can play it as long as they can because they may find different experience with playing it every time so they can't get bore they just have to complete story which is made by game team and in survival story mode

player can play game after completion of story too they can find different experience and strategies every time.

Plot

Our proposed project is first person open world Single Player Survival game. In near future a private space firm SpaceX; aims to launch one of its Dragon ships toward Mars in 2024. To enable the space flight capabilities necessary to make human life multiplanetary – or more specifically enable a self-sustaining human civilization on Mars. SpaceX's mission is to find the best source of water and to build the propellent plant, mine and refine water, draw co2 from atmosphere. But on their way near Mars they collide with an asteroid due to critical system failure they crashed to an unknown place of course to their intended location. Due to this crash landing only one crew member survived and all communication system is offline or destroyed in impact. So, he starts his journey after this destruction now all game based on how he will be survived on that place with no set missions or quests, empowering the player to make their own decisions for survival.

Gameplay

The player-character will have a health bar and oxygen bar and will take damage from falling, starving, drowning, contact with fire or deadly liquids, or being attacked by creatures, aliens. Player's mission is to explore the Martian terrain and build a habitable homestead while fighting off against a variety of dangers including strange enemies, different environmental elements, he needs to find different ways to survive, he will first build storage space (backpack) for carrying tools and weapons then he crafts

different stuff by exploration, he will be search for food, water and shelter. After some explorations he found some colonies which has been partially destructed so he will find clues and mystery over there, he will start gathering items off the ground. Once gathered enough resources then he will craft out things from it, he will get instructions for crafting in the form of papers and clues, Tools and items degrade over time, forcing the player to make careful decisions regarding their condition and their eventual need for repair.

He will also find missing ship wrecks but after long exploration of planet eventually the making of ship has high difficulty, with the help of information, skills and stuff he will be able to renew ship again. But the making of ship is set to be most difficult part of game, once it is completed he will be able to return back with all the survival techniques and information. But after completion of ship player can also find more things to discover which is countless. Character death may not be the end of the game.