**Makoko-**

**Technical Document.**

# **Game Concept and Overview:**

## Game Concept:

"Makoko Odyssey: The Quest for Courage" is an immersive action-adventure game that seamlessly blends education with entertainment. Set in the captivating floating community of Makoko, Nigeria, players embark on a transformative journey that explores the rich cultural tapestry and environmental challenges of this unique locale. As a solo adventurer, players navigate the waters, overcome obstacles, and interact with meta-human characters to unravel the mysteries of Makoko.

## Storyline and Setting:

## The game begins with the player returning to their roots in Nigeria, drawn by tales of Makoko, a floating community known for its resilience and cultural vibrancy. Stranded during Makoko's intricate waterways, players encounter Tobi, a young guide, during a storm, sparking an unexpected friendship. As the player delves deeper, they uncover the community's reliance on fishing, the significance of sacred Akoko plants, and the challenges faced by its inhabitants. The storyline unfolds through stages, each presenting unique challenges that players must overcome, from repairing a damaged boat to navigating intricate social dynamics. The setting of Makoko comes to life with detailed visuals, authentic cultural elements, and an evolving narrative that combines education and action in a seamless and captivating experience. "Makoko Odyssey" promises not just a game but a transformative exploration of culture, resilience, and the quest for courage in the face of environmental adversity.

## Target Audience:

* **Adventure Gamers:** Players who enjoy action-adventure games with immersive storylines, exploration, and character development.
* **Educational Gaming Enthusiasts:** Individuals seeking games that seamlessly integrate educational content, providing insights into geography, cultural studies, and environmental science.
* **Cultural Enthusiasts:** Those interested in exploring and understanding diverse cultures, appreciating the authenticity of Makoko's representation in the game.
* **Environmentalists:** Players with an interest in environmental issues and sustainability, drawn to the game's focus on real-world challenges faced by communities like Makoko.
* **Solo Gamers:** Given that the game is developed by a solo creator, it could appeal to solo gamers who appreciate the dedication and craftsmanship of an individual developer.
* **Global Gaming Community:** The game's commitment to open-source initiatives and community contribution could attract gamers interested in projects that give back to the gaming community.

# **Inclusive Age Group:** 16+

## Platforms:

* **PC and Mac:**
* Digital platforms such as Steam for PC and Mac users.
* **Consoles:**
* Gaming consoles such as PlayStation and Xbox.
* **Online Platforms:**
* Online platforms that support game distribution, such as Epic Games Store or GOG, to increase visibility and accessibility.
* **Mobile??:**

Mobile version for iOS and Android devices. This could attract a broader audience, including casual gamers and those who prefer gaming on the go.

* **VR (Virtual Reality)??:**
* Unreal Engine 5 supports VR development. So, it is possible consider creating a version of the game for VR platforms like Oculus or HTC Vive.

# **Gameplay Mechanics:**

## Exploration and Navigation:

**What:** An exploration system allowing players to navigate the unique floating community of Makoko whilst experiencing the challenges that a local Makoko resident will experience.

**How:** Third-person or first-person perspective to give players an immersive view of the environment. Including boats for water navigation and pathways for on-foot exploration.

## Interaction with Meta-Human Characters:

**What:** Create meaningful interactions with virtual representations of Makoko residents (Meta-Humans) to learn about their culture, experiences, and challenges.

**How:** Incorporation of dialogue trees, where player choices impact relationships and reveal different aspects of the community.

## Environmental Challenges:

**What:** Challenges related to the dynamic environment, such as changing water levels, storms, and other environmental factors. Additionally for the player, the heat will be a struggle.

**How:** Use of Unreal Engine 5's dynamic weather and physics systems to simulate realistic environmental challenges, requiring the player to adapt and strategize.

## Educational Integration:

**What:** Seamless integration of educational content related to geography, cultural studies, and environmental science.

**How:** Quests or challenges that embed educational elements, promoting learning through gameplay rather than traditional teaching methods.

## Resource Management:

**What:** Implementing resource gathering and management mechanics to highlight the community's reliance on available resources.

**How:** Allowing players to collect items like water hyacinth, tools, and materials for crafting. Use these resources for survival, trade, or completing quests.

## Cultural Immersion and Empathy:

**What:** Foster cultural appreciation and empathy through immersive elements like authentic art, music, and storytelling.

**How:** Include culturally significant events, rituals, and storytelling within the game to immerse players in the rich tapestry of Makoko's culture.

## Puzzle Solving:

**What:** Puzzles or challenges that require critical thinking and problem-solving skills.

**How:** Puzzles that align with the game's narrative, encouraging players to understand and apply cultural and environmental knowledge to progress. This will take place when learning to knit baskets out of water hyacinth. The player can work in the factory and earn money. Additionally, the player will need to research things they will need in Nigeria before going such as mosquito replant, money etc…

## Narrative-driven Gameplay:

**What:** Emphasize a strong narrative that unfolds as players progress, guiding them through the challenges and discoveries within Makoko.

**How:** Compelling storyline with twists, character development, and a sense of purpose, keeping players engaged and motivated. The player choses their character and they are made from sand. The player receives a letter and looks said but suddenly, their face changes determination adn focus. I must find my true self.

# User Interface (UI):

**Main Menu:**

* Start Game
* Load Game
* Options
* Graphics settings
* Audio settings
* Controls
* Credits
* Quit Game

**In-Game HUD (Heads-Up Display):**

* Health Bar: Represents the player's health status.
* Energy/Stamina Bar: Indicates the player's energy for actions like running or rowing the boat.
* Resource Tracker: Displays collected items or resources.
* Compass: Provides directional guidance within Makoko.
* Map: An interactive map of Makoko, marking key locations.
* Objective Tracker: Highlights current goals and missions.

**Interaction Prompts:**

* Contextual buttons for interacting with objects, NPCs, and Meta-Humans.
* Tooltips: Information about objects, artifacts, and environmental elements.

**Inventory System:**

* Backpack Icon: Opens the inventory.
* Item Slots: Spaces for collected items, tools, and artifacts.
* Sorting Options: Arrange items by type, rarity, or usefulness.

**Dialogue System:**

* Dialogue Box: Displays character conversations.
* Dialogue Choices: Options for player responses and decisions.
* Emote/Expression Icons: Convey emotions during conversations.

**Quest Log:**

* List of Active Quests: Tracks current objectives.
* Completed Quests: Archives finished missions.

**Settings Menu:**

* Graphics Settings: Adjust resolution, quality, and visual effects.
* Audio Settings: Control volume levels for
  + music
  + effect
  + dialogue
* Controls: Customize key bindings.
* Accessibility: Options for colourblind mode, subtitles, etc.

**Pause Menu:**

* Resume Game
* Save/Load Game
* Options
* Quit to Main Menu
* Quit Game

**Tutorial Pop-Ups:**

* On-screen instructions for new mechanics or challenges.

**Notification System:**

* Alerts for completed quests, achievements, milestone, or important events.

**Currency Display:**

* If applicable, show in-game currency or points.

**Progression Bar:**

* Indicates overall game progress or completion of specific objectives.

**Social Features (Optional):**

* Shareable Achievements
* Leader boards

**Game Over Screen:**

* Provides feedback on the player's performance and options to continue or return to the main menu.

**Loading Screen:**

* Displays game tips, lore, or artwork during loading.

**Credits Screen:**

* Recognizes contributors and developers.

**Accessibility Features:**

* Subtitles
* Colourblind Mode
* Adjustable Text Size

# Characters:

Overview of main characters, including backstories and roles.

Details on non-playable characters (NPCs) and their roles.

# Environments:

## Setting:

"Makoko Odyssey" is set in the vibrant and unique floating community of Makoko, located in Lagos, Nigeria. The game explores the cultural richness, resilience, and challenges faced by the people living in this distinctive environment. Makoko is known for its stilted structures, water-based transportation, and a rich blend of tradition and modernity. The setting provides a dynamic backdrop for an educational and immersive action-adventure experience.

## Key Locations:

**The Floating Village:**

The heart of Makoko, featuring interconnected wooden structures.

Homes, community centers, and workshops suspended above the water.

Unique architecture showcasing the community's adaptive building techniques.

**The Akoko Grove:**

A sacred area with Akoko plants, significant to the Yoruba tribe for their believed reproductive benefits.

Educational elements about the cultural and medicinal importance of these plants.

**Water Hyacinth Workshop:**

A crafting area where players learn about transforming water hyacinth into useful items.

Interactions with Meta-Humans (characters) engaged in crafting activities.

**Fish Market:**

A bustling market where players engage in fishing activities and learn about the local fishing industry.

Interactions with traders, showcasing the economic aspects of Makoko.

**Boat Repair Stall:**

A location where players can repair and customize their boats.

Introduces the importance of boat maintenance and customization for navigating the waters.

**Tobi's Home:**

Tobi, a key Meta-Human, becomes the player's guide and provides insights into Makoko life.

Quests and challenges centered around building rapport with Tobi's family.

**Community Center:**

A central hub for community activities and learning.

Educational scenarios covering environmental science, geography, and cultural studies.

## Level Design Concepts and Objectives:

**Exploration:**

Encourage players to navigate the interconnected structures of Makoko.

Discover hidden areas, artifacts, and cultural points of interest.

**Educational Quests:**

Quests integrated with cultural and environmental education such as players learning about the significance of Akoko plants, water hyacinth, and traditional crafts.

**Fishing Challenges:**

Players will be introduced to fishing mechanics in Makoko.

Educational content about fishing techniques, tools, and the importance of fishing to the community.

**Boat Navigation:**

Tutorial-style quests on using and customizing the boat.

Challenges related to changing water levels and navigating through tight spaces.

**Community Interaction:**

Relations with Meta-Human characters.

Quests involve helping community members, solving disputes, and gaining acceptance.

**Environmental Resilience:**

Showcase how Makoko residents adapt to environmental challenges.

Quests related to climate change, flooding, and community resilience.

**Climactic Challenges:**

Build intensity with escalating challenges, such as encounters with the village gang or unexpected environmental events.

**Integration of Learning:**

Seamlessly integrate educational content into gameplay scenarios.

Reinforce learning through interactions and challenges.

# Storyline and Quests:

## Detailed plot outline.

**Introduction:**

The game begins with the player, a character born in Nigeria but raised abroad, receiving a mysterious letter from their parents urging them to return to their homeland, specifically to Makoko, the floating community in Lagos. The letter hints at a family secret and emphasizes the importance of understanding one's roots.

**Act 1: Homecoming:**

1. *Flashbacks and Childhood Memories:*

* The game kicks off with the player experiencing vivid flashbacks of their childhood in Makoko. These memories are triggered by specific locations and objects in the environment.
* The player's mother is depicted as a central figure, nurturing and singing traditional Yoruba songs.
  + *Arrival in Makoko:*
* The player arrives in Makoko to find the community facing environmental challenges such as rising water levels, pollution, and diminishing resources.
* Initial interactions with Meta-Humans (Makoko residents) are cautious, reflecting the player's status as an outsider.

**Act 2: Unravelling the Family Secret:**

1. *Meeting Tobi:*

* The player encounters Tobi, a young resident who becomes their guide. Tobi hints at the family secret and expresses reluctance to delve into it further.
  + - *Environmental Challenges:*
  + The player navigates the changing water levels, learns to use a boat, and witnesses the impact of pollution on the once-thriving fishing industry.
    - *Challenges and Revelations:*
  + As the player helps Tobi with daily tasks, they uncover hints about a hidden family legacy tied to Makoko's resilience and environmental challenges.

**Act 3: Cultural Immersion and Acceptance:**

1. *Grandparents' Challenge:*

* Tobi introduces the player to his grandparents, who challenge them to prove their commitment to understanding and preserving Makoko's culture.
* Washing clothes the traditional way becomes a symbolic task for acceptance.
* *Fishing Expedition:*
* Tobi takes the player on a fishing expedition, imparting knowledge about Makoko's fishing traditions, tools, and the community's reliance on this activity.

**Act 4: Rising Tensions and Clues:**

1. *Marketplace Encounter:*

* While attempting to sell fish at the marketplace, the player faces hostility from area boys who threaten to expose their outsider status.
  + *Family Relics:*
  + Clues discovered in the family home lead the player to ancient relics that hold the key to Makoko's resilience.

**Conclusion:**

10. *Cliffhanger:*

- Act 4 ends with a revelation that the player's family has been the guardian of an ancient artifact crucial to Makoko's survival.

- Tensions rise as external forces, aware of the artifact's power, start encroaching on Makoko.

Breakdown of main quests and side quests.

# Art and Graphics:

Art style and visual direction.

Character designs, animations, and concept art.

Environment designs and assets.

# Sound and Music:

Overview of the game's audio elements.

Music style, sound effects, and voice acting considerations.

# Technology Stack:

**Game Development Engine:**

* Unreal Engine 5: The primary engine for game development, known for its high-quality graphics and robust features.

**Programming Language:**

* Blueprint Visual Scripting (within Unreal Engine): For creating game logic and mechanics without traditional programming.

**3D Modeling and Animation:**

* Blender: An open-source 3D modeling and animation tool for creating assets.
* Autodesk Maya: Professional 3D modeling and animation software.

**Texturing and Materials:**

* Substance **Painter:** For texturing 3D models.
* Substance Designer: Creating procedural materials.

**Sound and Audio:**

* Wwise or FMOD Studio: Middleware for interactive audio implementation.
* Audacity: An open-source audio editing tool.

**UI/UX Design:**

* Adobe XD or Figma: Prototyping and designing user interfaces.

**Version Control:**

* Git**:** For version control and collaboration.

**Project Management:**

* Trello or Asana: Task management and project organization.

**Communication:**

* Slack **:** Team communication and collaboration.

**Documentation:**

* Confluence or Google Docs: Collaborative documentation tools.

**Marketing and Promotion:**

* Adobe Creative Cloud (Photoshop, Illustrator): Graphic design for promotional materials.
* Social Media Platforms: For marketing and community engagement.

**Testing:**

* PlaytestingPlatforms**:** Utilize platforms like Steam for beta testing and feedback.

**Monetization:**

* Unreal Marketplace or Unity Asset Store: For selling or obtaining assets.

**Analytics:**

* Google Analytics for Games: Track player behaviour and engagement.

**Performance Optimization:**

* NVIDIA Nsight, Intel GPA: Tools for optimizing game performance.

**Additional Resources:**

* Stack Overflow, Unreal Developer Network (UDN): Community support and resources.
* Online Courses and Tutorials: Platforms like Udemy or Coursera for continuous learning.

# Monetization Model:

If applicable, outline how the game will be monetized (free-to-play, premium, in-app purchases, etc.).

# Marketing and Promotion:

Strategies for marketing and promoting the game.

Targeted audience engagement and outreach plans.

# Development Timeline:

Breakdown of development milestones and timelines.

Projected release date.

# Testing and QA:

QA (Quality Assurance) plan for testing the game.

Bug tracking and resolution process.

# Legal and Compliance:

Licensing agreements.

Compliance with relevant laws and regulations.

# Documentation:

User manuals or guides.

Internal developer documentation.

# Team Roles and Responsibilities:

Outline of team members, roles, and responsibilities.

# Budget and Resources:

Estimated budget breakdown.

Resources required for development.

Risk Analysis:

Identification of potential risks and mitigation strategies.