

WordVenture : Explore, Learn and Play

Kasturi Tomake, Satvika Bidkar, Om Rajput, Tanvi Pachwadekar, Shubhangi Patil

Kasturi G. Tomake(student), computer science and engg., Sanjay Ghodawat Institute

Satvika S. Bidkar(student), computer science and engg., Sanjay Ghodawat Institute

Om A. Rajput(student), computer science and engg., Sanjay Ghodawat Institute

Tanvi S. Pachwadekar (student), computer science and engg., Sanjay Ghodawat Institute

Guide: Mrs. Shubhangi T. Patil (lecturer), computer science and engg., Sanjay Ghodawat Institute

Abstract –

WordVenture is a children's game application that contains fun and educational aspects within a secure and engaging setting. In the game, children can travel through various environmental places and solve puzzles related to historical landmarks such as the pyramids, Qutub Minar, igloos, castles, and the Eiffel Tower. When they solve these puzzles, it enhances their problem-solving skills, boosts creative thinking, and improves memory retention. The gaming application is easy for children to use, allowing them to play the game effortlessly. The game includes tasks such as collecting scattered letters, solving word puzzles, exploring historical places, and engaging with educational elements and characters across progressive levels. It helps build critical thinking skills and makes learning informative and enjoyable. Word Venture is an offline game, allowing children to save on internet usage, which is one of the key features of the Word Venture game.

1.INTRODUCTION

WordVenture is a wonderful concept of a game implemented by our team. It is an innovative game where all users can be entertained simultaneously, and it consists of educational content. The game is helpful for children aged 7 to 9. WordVenture integrates educational tools like words created by characters that are hidden in various environmental places such as ice lands, deserts, mountains, evergreen forests, lakes, and seaside areas. This feature excites children about

progressing to the next level. The game presents various challenges to promote their thinking power.

WordVenture aims to provide a platform where today's kids can learn educational concepts while enjoying engaging environmental aspects. The game incorporates historical, geographical, and language elements, encapsulating all of these aspects. It encourages children to imagine what will happen next and helps them understand historical landmarks like the pyramids, Qutub Minar, castles, and more.

WordVenture includes features like finding characters in different environmental settings, solving puzzles, earning small rewards, and progressing through levels. One of the most important features is that the game does not require an internet connection; it is an offline game. Ultimately, the game presents challenges that enhance thinking skills, retention, creativity, and problem-solving in an enjoyable manner.

2.Review of Literature

2.1 Study of Existing System

Today's children are often absorbed in games like Candycrush and Temple Run, which can lead to neglecting homework and may affect their mental skills. However, Word Venture provides an interface where they can virtually explore things while integrating educational content. The game has specific time limits for every level, helping to control screen time. This way, addiction can become a

positive activity.

In some tutorials, there are boring instructions that cause children to lose interest. But in this game, there are no instructions that make children bored. While other games lack educational content, Word Venture includes elements that help kids learn various words. Other games can be difficult for children to use, but this one is user-friendly. Additionally, about 75% of games are online, where kids might randomly click on ads or make purchases. In contrast, this game is offline and does not require internet access.

2.2 Findings from Literature Review

Wordventure is the effective gaming idea that promotes the kids thinking ability and cultural education. It is the challenge to keeping the content updated and ensuring accurate cultural representation to maintain the correct app GUI. We make the feedback system to enhance our project quality

2.3 Problem statement

WordVenture's key aim is to develop a game that has user-friendly gameplay, a user interface, and educational value, ensuring fun, interactive content and learning in an entertaining environment that improves children's love for words. Many kids are wasting time playing games that are not useful for them, especially since they are often online games. This can lead to internet dependency and exposure to harmful content. In contrast, WordVenture integrates educational content within a fun environment.

2.4 Project Scope

The WordVenture kids game project is an approach to creation and development of a learning video gaming platform for children aged 7–9. Gradually, gamers will have a chance to visit different countries and regions as they enter virtual-worlds which are designed based on real life locations with an opportunity for the players to learn about local cultures, landmarks or traditions. One of the key features of this tool will be interactive puzzle, quest and challenge that reinforce learning for geography – history and practices in a fun way. The project will also focus on a visually stunning and user-friendly UI

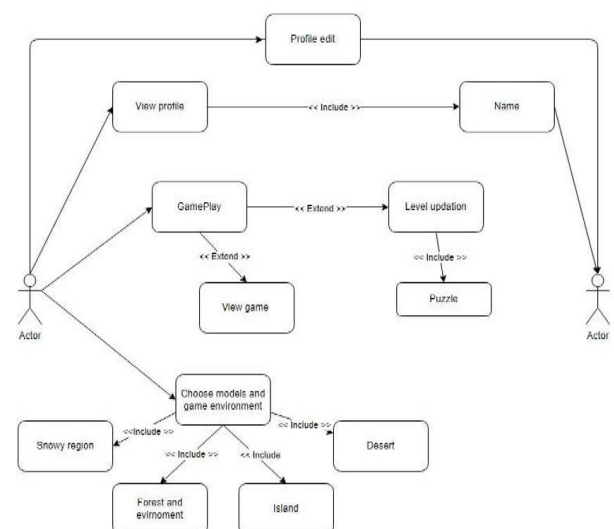
for children, making navigation as easy and playable without any trouble to go through. In addition, the game will reward players with in-game loot as they continue to learn. Multi-platform, including mobile phones and tablets as well as desktop.

3.Objective of Proposed System

Blending educational resources, it provides elements like geography, history, and language lessons that are smoothly incorporated into the game. Cultural exploration can create an interactive platform that allows children to explore various countries and learn about their cultures, traditions, and languages. User engagement is achieved by designing quests, challenges, and puzzles to stimulate interest and maintain player focus while enhancing learning. The child-friendly interface is easy to use, making it accessible to children aged 7-10. It has a progressive learning system, which is a reward-based system that encourages consistency in learning by offering motivation for completing educational tasks and exploring new areas.

4. Methodology

4.1 Use case Diagram



4.2 Modules of Software System

Gameplay: The users advance through a sequential narrative complemented by movement across different territories and solving letter puzzles in the process.

Mechanics: Every territory has specific vocabulary sets (e.g. teachers or any other professions, environments etc), where the increasing order of levels is from easy to hard. Players get power-ups and collect items during the stages.

Narrative: Each realm of activity could be related to the broader story and the participants including quests and storytelling.

5.Requirements

5.1Software Requirements

5.1.1 Frontend

- C++
- java
- javaScript
- python (for character)
- C#

5.1.2 Backend

- MongoDB
- MySQL

5.2 Hardware Requirements

- Desktop
- RAM: at least 16 GB
- Storage at least 256 GB of space

- Processor: at least 4 core
- Graphics Card: a dedicated graphics card (at least for 3D games) with as much as VRAM as possible
- Resolution: at least 1920 x 1080
- Ports a couple available for controller or at least a USB hub

6.Application of proposed System

The proposed system for wordVenture kids game is designed for enhancing the ability of the children like creativity, problem solving skills etc. game encapsulate the educational elements that makes game useful for them. Key feature is that kids can play and learn the various words and understand environmental places. The system gives secure and user friendly platform to user(kids). It has reward system and content which is interactive. It is offline game and promotes the creativity, global awareness, thinking , problem solving skills.

1) Offline accessibility : user can play game without internet.

2) Cultural exposure : it has various themes and challenges that promote awareness about the global.

3) Educational integration : it has integrated educational content like finding word.

4) Gamification of learning : it has reward system that motivates the user and increase the interest of the user in the.

7.Advantages and Disadvantages

7.1 Advantages

1. While having fun: Children can acquire knowledge in areas such as mathematics, literacy, and problem solving through fun-filled games.

2. . Development in reasoning ability: Children are able to think and even reason, as they have to think on the challenges given to them. Communication with the clients.
3. Enhanced coordination: When using games that entail touch and movement enhance the hand eye coordination. Patent Lawyers.
4. . Development of artistic abilities: Games can be helpful in some cases where you want your child to think outside the box.
5. Non virtual translators Realization of the problem shuffling the focus from textual activities to answering casual questions.

7.2 Disadvantages

1. Can Be Addictive: Kids might want to play all the time, ignoring home work or other important tasks. Initial Learning Curve.
2. Less Face-to-Face Play: Playing games can mean less time spent playing with friends in person.

8. Conclusion and Future work

In conclusion , the WordVenture game includes the interactive and challenging game play , which enhance there IQ ,creative thinking , improve the memory and retention, problem solving skills , critical thinking. Game consist the useful educational elements that are integrated in various things , it has powerful graphics which makes game enjoyable, motivating and make user interested in the game with this game enhance there children's word dictionary . We focused on providing a platform which is user friendly and it gives kids fun with education. We provide a interface where they can learn a new word by finding the missing characters and completing filling blanks with they can explore the virtual environment and historical places. We made a specific time limit to every level it helps us to control there screen time.

9. Bibliography

- <https://www.devtodev.com/education/articles/en/506/20-best-books-for-game-designers>:
- <https://gamingthepast.net/theory-practice/bibliography>
- <https://www.goodreads.com/book/show/18977761-game-development>
- Aslan, Serdar, and Osman Balci. "GAMED: digital educational game development methodology." SIMULATION 91, no. 4 (March 2, 2015): 307-19. <http://dx.doi.org/10.1177/0037549715572673>.
- DEPIETRO, PETER "DEVELOPMENT ESSENTIALS: GAME STORY AND CHARACTER DEVELOPMENT AND DEVELOPING SERIOUS GAMES." Art Book 14, no. 1 (February 2007): 70-71. <http://dx.doi.org/10.1111/j.1467-8357.2007.007832.x>.