CHESS: THE ROYAL BATTLE

PROJECT SYNOPSIS

OF MINOR PROJECT

BACHELOR OF TECHNOLOGY

COMPUTER SCIENCE AND ENGINEERING

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1. Introduction

Chess is a two-player game, called White and Black. The goal is to seize the king of your adversary. In the game, this is known as checkmate.Chess is played on a board with 64 squares. Each player starts with 16 pieces, lined up top with two lines. The first row is made up of pieces called pawn. Next the row contains: king, queen, two rooks, two bishops, and two knights. Chess is described as a "complete knowledge" game, because both players are know the whole state of the game world at all times: just by looking on the board, you can see which pieces are alive and where they are found. Throughout the game theory analysis, however, human players see chess in terms of Strategies and thinking. The player's ability to win in chess it requires a certain level of intellectual ability. One has to "see" what is happening what a moving opponent says in terms of a particular strategy, usually part of a long-term strategy for victory. Chess is one of the most popular board games because it has many benefits to playing - Improves memory.

Increases intelligence.

Deepens focus.

Elevates creativity.

Boosts planning skills.

1.1 Technology Used

Unreal Engine is used for developing graphical chess. This project comes under the field of game development.

2. Rationale

Chess is one of the world's most popular game,played by millions of people world wide. Playing chess digitally also allows the player to try multiple strategies as soon as they think about them no matter where they are in order to improve their game. The path to succeeding in chess is to learn as many strategies as possible to outwit any and all opponents.

Digital version of the popular and mentally engaging board game instead of buying and storing a physical version of it.The board and 32 pieces can be difficult to store and take out to use everytime. Instead, through the digital game, it is easily accessible to play for anyone.

3. Objectives

- It will provide the users very new and interactive graphical user interface.

- It will help the users to enhance their strategic and logical thinking.

- Users will get a very new environment like (different chess board, different characters etc).

- This project will change the mindset of users regarding the chess video game.

- While playing the game users will get entertained by seeing the different animations of the characters.

4. Literature Review

This paper focuses not only on the software component of the engines discussed here, but also developments in hardware and graphical user interface for chess . As most search engines use a different version of MinMax search tree, considered an effective algorithm for performance. Each variation is developed using a new one methods of searching or pruning. Computer hardware updated appropriately assist the machine to perform calculations Soon. The GUI is developed using a variety of tools available. Performing GUI interaction makes the user feel great too very close to playing a real game but on file easy to carry. 2D and 3D graphics as well other media such as background sound can be heard to provide the file The game has less personality and edge than the original orthodox game. Also, now more and more variations of the game itself was made to attract a number of players chess. Surakarta chess and chess with sides are present some of the best known versions available popularity among game players. These engines work in the same sense except that chessmen go their separate ways is different from real chess. The board too is designed differently to give players a feeling to play a completely different game.

5. Feasibility Study

Under feasibility study, we can say that it is a combination of software and hardware requirements. For this project we need hardware configuration like:

- Processor - intel i5 or greater (or similar to this)

- Ram - 8gb or greater

- Graphic Card - Nvidia GTX with Vram 4gb or greater (or similar)
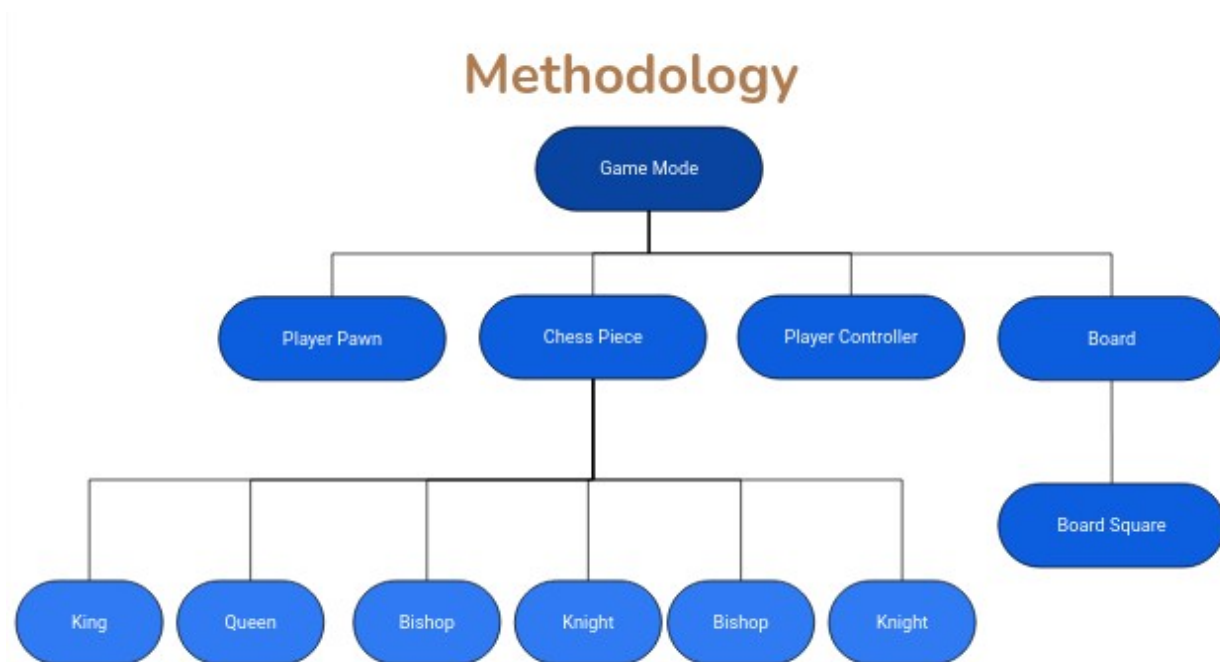
- Storage - 1TB or greater

Software configuration includes:

- Epic Game Launcher

- Unreal Engine 4 or greater

Under economic section of feasibility study, we did not required any such kind of expenses.

6. Methodology

Identifying the management category of a game of chess is the first step in developing an effective game. This will be useful for organizing classical hierarchies during coding, in the second phase of construction, algorithms to ensure the movement of a particular character will be performed. This includes creating an active console chess game. Additional features that allow the player to drop the game will also be added and the possible implementation of advanced search algorithms, perhaps Minimax, will be studied during this development phase. Finally, the game console base code will be integrated with a three-dimensional GUI.

7. Facilities Required For Proposed Work

For this project hardware specifications are given as :-

- Processor - intel i5 or greater (or similar to this)

- Ram - 8gb or greater

- Graphic Card - Nvidia GTX with Vram 4gb or greater (or similar)

- Storage - 1TB or greater

Software that needed for this project :-

- Epic Game Launcher

- Unreal Engine 4 or greater

8. Expected outcomes

Completion of this project will bring a chess version that works well with the GUI. In addition, the outcome of this project will also be important for academics related to building a better understanding of how to represent the real game of chess in a computer program. This project aims to bring a three-dimensional GUI version of the game of chess. The final product will be a desktop or mobile app, which will be able to work on any latest version of windows, Android and iOS applications. In the game one user can choose to play with another user.

Also, the source code of the project will be made open source where related professionals can benefit. This will also empower other people in the community to raise issues and provide feedback, so that we can improve the next version the of game.

9. References

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3. https://en.m.wikipedia.org/wiki/Game_engine

4. https://www.chess.com/terms/chess-pieces