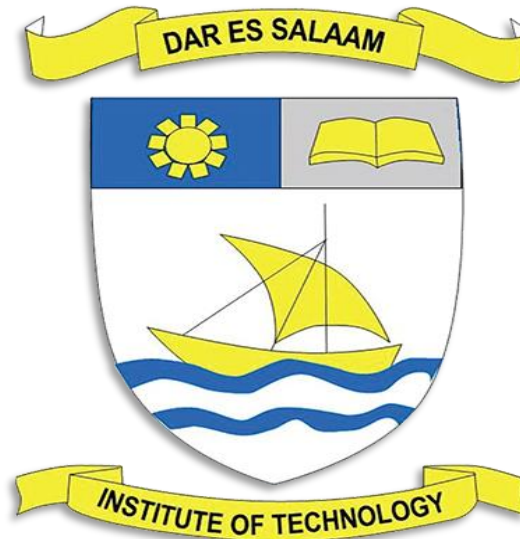


DAR ES SALAAM INSTITUTE OF TECHNOLOGY



DEPARTMENT OF COMPUTER STUDIES

COU 07607

COMPUTER GAME DESIGN

ASSIGNMENT 1

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Chess Game Documentation

Type of Game:

Chess is a classic example of a board game, specifically categorized as a strategy board game. It involves two players competing against each other on a checkered board.

Game Genre:

The genre of chess is strategic. Players must think several moves ahead, anticipate their opponent's actions, and formulate strategies to achieve their objective.

Gameplay:

1. **Board Setup:** The game is played on an 8x8 square board with alternating colors (typically black and white).
2. **Piece Setup:** Each player starts with 16 pieces:
 - **1 King:** The most important piece, whose capture or checkmate determines the game's outcome.
 - **1 Queen:** The most powerful piece, capable of moving any number of squares vertically, horizontally, or diagonally.
 - **2 Rooks:** These pieces move horizontally or vertically any number of squares.
 - **2 Knights:** Move in an L-shape: two squares in one direction and then one square perpendicular.
 - **2 Bishops:** Move diagonally any number of squares.
 - **8 Pawns:** Move forward one square, but capture diagonally. They have a special initial option of moving forward two squares.
3. **Game Flow:** Players take turns moving one piece per turn, starting with white. The objective is to checkmate the opponent's king by placing it in a position where it cannot escape capture.

Objectives:

The primary objective in chess is to checkmate the opponent's king. Checkmate occurs when the opponent's king is under attack and cannot escape capture in the next move.

Rules:

1. **Movement Rules:** Each type of chess piece has specific rules for how it moves across the board.
 - Pawns move forward but capture diagonally.
 - Rooks move horizontally or vertically any number of squares.
 - Knights move in an L-shape.
 - Bishops move diagonally any number of squares.
 - Queens combine the movement abilities of rooks and bishops.
 - Kings move one square in any direction.
2. **Special Moves:**
 - **Castling:** A king and one of its original rooks move simultaneously under certain conditions.

- **En Passant:** A special pawn capture that can occur if a pawn moves two squares forward from its starting position and lands next to an opponent's pawn.
 - **Pawn Promotion:** When a pawn reaches the opponent's back rank, it can be promoted to any other piece (typically a queen).
3. **End of Game:**
- The game ends with checkmate (one player's king is in check and cannot escape capture), resignation, stalemate (one player has no legal moves and is not in check), or draw by agreement, threefold repetition, or insufficient material.

Components:

- **Chessboard:** An 8x8 grid with alternating colors (usually black and white).
- **Chess Pieces:** 32 pieces in total, 16 per player, differentiated by color (commonly black and white).
- **Chess Clock** (optional): Used in competitive play to time each player's moves.

Challenges:

- **Strategic Thinking:** Planning several moves ahead while considering immediate threats and opportunities.
- **Tactical Awareness:** Identifying and executing short-term plans (tactics) such as captures and threats.
- **Positional Understanding:** Evaluating the strengths and weaknesses of piece placement and pawn structure.
- **Time Management** (if using a chess clock): Ensuring moves are made within a set time limit.

Space of the Game:

- Chess is played on a defined space: the chessboard, which is an 8x8 grid of squares. Each square has a unique position identified by a combination of a letter (a-h) and a number (1-8), indicating columns and rows respectively.

