



Case Study



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An online multiplayer game based on 'Tic-Tac-Toe'

Our client wanted to reach out to the huge online gaming community and offer them a strategy game based on the concept of the popular 'tic-tac-toe'. The game play involves two players taking turns to counter each others' moves in order to be the first to score hundred points. The application also forms online gaming clubs which can be monitored by administrators.

Customer Profile

Our client is a USA based entrepreneur.

Business Requirements

Our client wanted an online gaming club where players could register and compete against each other in a two-player strategy game based on the lines of 'tic-tac-toe'. The game board was to consist of a combination of circles and squares set in a grid formation. Players were to take turns to place their pawns on the board. The first player to score a hundred points was to be declared the winner. The administrator was to be provided with the means to view and manage the players registered with the club, generate statistics, monitor games in progress etc.

Developing a web based strategy board game using Flash

Icreon designed and developed the online game using Flash and PHP. Flash Media Server has been used to handle requests/responses and enable real-time game play.

The front-end gaming application has been completely developed in Flash and consists of a gaming lobby (containing a list of all games currently in progress) and a players lobby (containing a list of all players currently logged into the system).

Players are required to register with the website to play. Once logged in, players can either challenge other players (listed in the player's lobby) to a game or can watch a game currently in progress.

The game board is a combination of squares and circles set in a grid. The outer layer of the grid consists of squares and is referred to the outer court. The inner area contains circles and is referred to as the inner court. At the center of the grid is a square. At the start of the game players are assigned five pawns apiece. The object of the game is to be the first to score a hundred points.

Players take turns to place their pawns in empty squares or circles, with the aim of making a score and at the same time preventing an opponent from doing so. Players earn points on being the first to place three or more of his/her pawns in a row (horizontally or vertically).

A game consists of multiple hands each having a score of 5 (for three or more like pieces in a row in the outer court), 10 (for the inner court) or 50 points (for five like pawns in a row including the center square). When a hand is won by a player, the board is cleared for the next hand and fresh pawns are provided to the players. This continues till a player scores a total of 100 points.



In case all pawns have been placed on the board, but both players have failed to score 100 points, the game play continues with each player moving his pawns (one at a time) to an empty square/circle with the aim of making a score.

The solution includes an administrator module that enables game administrators to view and monitor the website. The various tasks available to the administrator are:

- **User Management:** The administrator can search for and view the details of all the players registered with the site.
- **Game Management:** Provides the details of the games in progress and allows the administrator to view the entire history of any game including the date on which the game was played, the names of the players, the winner, and the moves made by each player.
- **System Management:** New games and connections to the website can be managed and currently logged in players can be disconnected. The administrator can also define the minimum flash client version required to be able to connect to the server.

Technologies used in developing this application are:

