



Case Study

Masterboard

An online multiplayer skill game

Our client wanted to launch a gaming website that would bring together game enthusiasts and would provide them with a new interactive skill based game. Each game (a combination of crossword puzzles and general knowledge questions) aims to stimulate players' mental and research abilities and is available in a multi-player environment wherein players or teams of players can compete against each other to the first to score the maximum points. Players earn points for each crossword clue/question solved. The solution delivered by Icreon allows our client to run and operate an online gaming club with ease. Back-end interfaces have been provided allowing game administrators to schedule games, and track them. Players, in turn, can register to play for any of the scheduled games.

Customer Profile

Our client is an Australia based entrepreneur.

Business Requirements

Our client required a solution that would enable them to offer players a chance to participate in an interactive multi-player skill based game and prizes in the form of redeemable points. Administrators were required to be able to create and schedule games. The game creation process was to involve defining the game parameters (free or paid, game prizes, duration etc), creating crosswords (by selecting a grid pattern and the words and their clues), and knowledge question sets (having subjective type answers). Prizes in the form of points were to be awarded to the players. A detailed tracking mechanism for each game (players, winner, earnings from the game etc) was required. Additionally features such as a discussion forum, a CMS to update the content appearing on the website, a storefront to retail merchandise etc were also required to be built into the solution.

An online solution for enhancing mental skills through interactive games

Icreon developed the solution using PHP and Flash. A Flash Media Server was used to allow real-time game-play. The solution provides players with the means to enhance their mental and research abilities.

Registered players can sign-up to participate in any of the games scheduled by the administrator. Games can be played free of charge or for a fee (this can be set by the administrator). Free games can be played to improve skills; players earn skill points from such games. As opposed to free games, paid games offer players a chance to win prizes that can be redeemed for money or that can be used as currency for transacting on the website.

The game console has been built in Flash. At the scheduled date/time players can login to the game to start it. Players can choose to start with the crossword puzzles or the knowledge question set. When a player selects a clue/question to solve, it will be locked; other players will be unable to solve

the locked clue/question. As a word/question is solved it is reflected on the gaming console for all to see. Points are earned for various tasks/activities performed, these include:

- **Game points** – Valid only for the duration of a game, these points are used to determine the winner. Players earn game points for each crossword clue solved/question answered. During game-play, players can purchase game points to boost their chances of winning the game.
- **Skill points** – These points determine a player's skill level. The points are awarded on the basis of various parameters such as of number of correct answers, time taken to answer etc. Skills points can be earned from both free and paid games. Skills points are credited to a player's account.
- **Redeemable points** – These points are credited to the winner of a game and can be redeemed for money. These points can also be used as currency for transacting on the website e.g. purchasing game points, purchasing items for the store etc. Redeemable points are awarded only for paid games. Players can also earn redeemable points when friends whom they refer sign-up for paid games.

Additionally, players can earn bonus points within a game for achieving predefined targets. Bonus points can be in the form of game points or redeemable points.

Games can be played by individual players or by teams of players competing against each other. To make the games more competitive, challenges can be issued by players. Once a challenge has been accepted by both parties, the administrator can schedule the game.

Players can communicate with each other via means of chat (both public and private). The game administrator can regulate the chat by laying down a list of banned words, banning players from chat etc. Players can track their skills with respect to other players through leadership boards.

In addition to the game console, players have access to:

- **Discussion Forum:** phpBB, an open source forum package has been integrated to provide this functionality.
- **Store:** Players can browse through the store and purchase available products. Products can only be purchased using redeemable points that the player has accumulated in his/her account.
- **Trading Post:** Players can offer their playing skills to others in exchange for redeemable points. Facilities for players to donate their redeemable points to charity (from among the ones listed) have been provided. The administrator, in turn, sends the monetary equivalent of the points to the relevant charity organizations.
- **Information pages:** Contains all information and latest news about the website.

Administration Console

A web based administration console has been provided, allowing gaming administrators to manage the website. The tasks that can be performed through the administration console include:

- **Game Generation:** A game consists of crossword puzzles and knowledge sets. The administrator can individually create crosswords and knowledge sets and then combine them to create a game.

Crossword Library: We have developed a crossword generator that can be used to generate crosswords and build a crossword library. In generating a crossword, the administrator can select the crossword grid pattern, and the words that are to be used. Words and their clues to be used can be selected from the word store (which in turn is created and managed by the administrator). On the basis of the selected pattern and words, the crossword is created and displayed. The administrator has the flexibility to modify the grid by adding/editing words directly into the grid.

Knowledge Set Library: A knowledge set is a group of 24 subjective type questions. The administration can add questions and specify the correct answers for each.

The game creation process involves selecting from the crossword puzzle and knowledge set libraries the puzzles and knowledge sets to be used, and also defining the game parameters such as free or paid, fees to be charged in case of a paid game, scheduled date/time, point distribution, minimum players required etc.

The administrator can also create games based on challenges accepted.

- **Manage Funds:** The control and distribution of funds received through the website (from game fees, store sales etc) can be managed and distributed by the administrator to various accounts (such as loyalty points, prize fund, charity etc)
- **Track & Monitor Game/Player Histories:** All game and player histories are maintained in the system. The administrator can generate reports to view the history.
- **Manage Content:** All the content (such as terms & conditions, news, FAQs etc) appearing on the website can be managed by the administrator.
- **Store Management:** The administrator can create and manage the catalogue of products available for sale in the store. Options to view the orders that have been placed have also been provided.

Technologies used in developing this application are:

