## Abstract

Games have always been popular among all age groups of people around the world in different forms and on different mediums. The decreasing cost of computers and internet connections have drawn the attention of people and have highly influenced the online game population growth. Yet another huge forward leap in the game industry is brought about by the parallel advancements in network and mobile technology. Gaming on mobile devices has made playing games anytime anywhere possible; while wireless networks have made multiplayer gaming possible using a mobile phone.

This thesis focuses on one of the many challenges faced by a mobile game service team – the mobile phone operator, the mobile phone company and the game producer. When an online multiplayer game is launched in the game market by this team, the major challenges are pulling in the current game user crowd, creating interest in a new section of the online community, retaining the initial users of the game, and increasing the player community size. The challenge of retaining those initial players and indirectly increasing the game population by word of the satisfied players is taken up in this project.

Bot System renders automated players to the online mobile game room of a player when he or she could not be paired up with an opponent by the game providing server computer. The thesis devises software called "bot server" to augment the game server for achieving this goal. The thesis begins with an analysis of the requirements, followed by careful measurements of pros and cons of all the possible design choices, and a design draft. While testing the software that was developed from the design, a couple of performance issues were discovered. The alternative methodology to resolve the issues were considered and implemented.