# FLIP RANKS, A STRATEGIC BOARD GAME

# THESIS

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# FLIP RANKS: A STRATEGIC BOARD GAME

Undergraduate Thesis
Submitted to the faculty of the
College of Engineering and Information Technology
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In partial fulfilment of the requirements for the degree Bachelor of Science in Computer Science



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### **ABSTRACT**

KASAYSAYAN, JOVCEL P. and SALVACION, REI MARCK G. Flip Ranks: A Strategic Board Game. Undergraduate Thesis. Bachelor of Science in Computer Science. Cavite State University, Indang Cavite. May 2017. Adviser: Ms. Ria Clarisse L. Mojica.

The study was conducted from December 2014 to April 2017 at Cavite State University, Indang, Cavite to create a computerized system board game called Flip Ranks. Specifically, it aimed to: 1. identify existing problems through research; 2. analyze the identified problems using fishbone diagram; 3. design a diagram that will show the answers for the problems using data flow diagram; 4. develop the game using Java NetBeans Ide 8.2 and Adobe Photoshop for the designs; and 5. evaluate the game using usability, performance and unit testing.

The development of Flip Ranks: A Strategic Board Game was developed to provide computerized version of a traditional board game with added twist using randomized algorithm and it has now a maximum of three players which can be played with a computer player using minimax algorithm. The software development methodology used was iterative development process. Java NetBeans Ide 8.2 was used as the programming language, Adobe Photoshop CS6 for the design.

One hundred college students of Cavite State University -Main Campus evaluated the system. A software evaluation sheet based on ISO 9126 was used as the research instrument.

The overall result of software evaluation with the criteria of functionality, usability, efficiency, and portability shows that the software was excellently done. It means that the proponents met all the expectation and desired output for the developed software.

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#### FLIP RANKS: A STRATEGIC BOARD GAME

### Jovcel P. Kasaysayan Rei Marck G. Salvacion

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### **INTRODUCTION**

Games can be based on pure strategy, chance (e.g. rolling dice), or a mixture of the two, and usually have a goal that a player aims to achieve. Early board games represented a battle between two armies, and most modern board games are still based on defeating opposing players in terms of counters, winning position, or accrual of points. A board game is a game that involves counters or pieces moved or placed on a board, according to a set of rules. The board games are represented by a battle of two teams or armies and aims to defeat the opposing team in terms of countering their moves or having more points

Board games have been considered as a popular past time but over the past few years, computer games have taken over and have been deemed more interesting. Nowadays, we seldom see Filipino youth playing board games. They are usually playing with their computer console, or cellphones, or tablet, personal computers (PCs), and watching different television shows.