

# To the Rescue: A Strategy RPG Mobile Game for the Android Operating System

#### **SPECIAL PROBLEM**

Presented to

The Faculty of the Computer Studies Department

College of Science and Computer Studies

De La Salle University-Dasmariñas

In partial fulfillment of the requirements for the Degree of

#### BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Kien Patrick R. Basco Jaff Cyrus B. Labrador Mathew H. Omang

Ms. Sherry B. Naz Adviser

February 2014



#### **ABSTRACT**

The purpose of this research is to develop a strategy RPG mobile game entitled "To the Rescue" for Android environment. It is a single player that will explore the user's strategic skills, logical thinking and decision making. The goal of the game is to defeat all the enemies and save the princess. There are two types of mode in the game: the story mode and survival mode. The story mode will depend on the decision of the user in order to achieve the goal. The survival mode is a challenge mode that will test user's strategies on how to survive from endless waves of enemies. User can gain new character, upgrades skills and ability and view the high scores in the game.

The proponents used different software such as Android Software Development Kit, Android Developer Tools, and Eclipse to develop the game using Java programming language. The design such as characters, main menu and battlefield was created in Adobe Photoshop. The proponents used different reference such as tutorials, articles and websites. In order to test and improve the game, they conducted a survey to 50 gamers and 50 non-gamers with a total of 100 respondents.



### TABLE OF CONTENTS

| Contents  | Page number |
|---|-------------|
| PRELIMINARIES   |             |
| Title Page  | i           |
| Approval Sheet  | ii          |
| Certification   | iii         |
| Abstract  | iv          |
| Acknowledgements                                      | v           |
| Table of Contents                                     | vi          |
| List of Figures                                       | X           |
| List of Tables  | xi          |
| CHAPTER I: Introduction                               |             |
| 1.1 Project Context                                   | 1           |
| 1.2 Purpose and Description                           | 3           |
| 1.3 Objectives of the Study                           | 4           |
| 1.3.1 General Objectives                              | 4           |
| 1.3.2 Specific Objectives                             | 4           |
| 1.4 Scope and Limitations                             | 5           |
| CHAPTER II: Review of Related Literature and Studies  |             |
| Foreign Literature                                    |             |
| 2.1 Making Mobile Game Development More Efficient and | 7           |
| Less Expensive  |             |



| 2.2 Engaging Students through Mobile Game                     | 7  |
|---|----|
| Development   |    |
| 2.3 Introduction to Game Development, 2 <sup>nd</sup> Edition | 9  |
| 2.4 Development Platforms for Mobile Application              | 10 |
| Status and Trends   |    |
| Local Literature  |    |
| 2.5 Pinoy-made game application Streetfood                    | 11 |
| Tycoon a big hit  |    |
| 2.6 Brain Blast   | 12 |
| 2.7 Developing Android and iOS Games in the                   | 13 |
| Philippines   |    |
| 2.8 Animation   | 14 |
| CHAPTER III: Theoretical Framework                            |    |
| 3.1 Research Paradigm   | 15 |
| 3.2 Concept of the Study                                      | 17 |
| 3.3 Conceptual Process  | 18 |
| 3.3.1 Functions of the System                                 | 18 |
| 3.3.2 Hierarchical chart                                      | 19 |
| 3.4 Conceptual Operation                                      | 20 |
|   |    |
|   |    |



| CHAPTER IV: Design and Methodology                        |    |
|---|----|
| 4.1 Project Development                                   | 22 |
| 4.1.1 Screen Shots  | 22 |
| 4.1.2 Use Case Diagram                                    | 25 |
| 4.2 Development Planning                                  | 26 |
| 4.2.1 Software Suited                                     | 26 |
| 4.2.2 Language Used                                       | 28 |
| 4.3 Analysis of Requirements                              | 29 |
| 4.3.1 Evaluation of the Project                           | 29 |
| 4.3.2 Research Instruments and Techniques                 | 30 |
| 4.3.3 Data Gathering Procedure                            | 31 |
| 4.4 Statistical Treatment of Data                         | 31 |
| CHAPTER V: Results and Discussion                         |    |
| 5.1 Instruments Used to Gain Result                       | 38 |
| 5.2 Results and Detailed Discussion Obtained in the Final | 40 |
| Evaluation  |    |
| 5.3 Basis of Data   | 40 |
| 5.4 Data Tables   | 41 |
| 5.4.1Data Tables for Different Users                      | 41 |
| 5.5 Acceptability of the Study                            | 42 |
| 5.6 Interpretation of Data based from the Objectives      | 43 |
| of the Study  |    |
|   |    |



| CHAPTER VI: Conclusion and Recommendation             |    |
|---|----|
| Charler vi: Conclusion and Recommendation  Conclusion | 44 |
|   |    |
| Recommendation  | 45 |
| BIBLIOGRAPHY  |    |
| Articles  | 46 |
| Websites  APPENDICES                                  | 46 |
| APPENDICES  |    |
| Appendix A  | 47 |
| Appendix B  | 48 |
|   |    |
|   |    |



#### LIST OF FIGURES

| Figure    | Title                                  | Page number |
|-----------|--|-------------|
| Figure 1  | Use Case Diagram of User's Action      | 15          |
| Figure 2  | Input Process Output Diagram           | 17          |
| Figure 3  | HIPO (Hierarchal Input-Process-Output) | 19          |
| Figure 4  | Main Menu                              | 22          |
| Figure 5  | Selections of Units                    | 22          |
| Figure 6  | Upgrading Unit's Skills                | 23          |
| Figure 7  | Selections of Episodes                 | 23          |
| Figure 8  | Settings                               | 24          |
| Figure 9  | Engaging the Boss                      | 24          |
| Figure 10 | Sample Battlefield                     | 25          |
| Figure 11 | Use Case Diagram                       | 25          |



#### LIST OF TABLES

| Table   | Title                     | Page number |
|---------|---------------------------|-------------|
| Table 1 | Data Table for Gamers     | 41          |
| Table 2 | Data Table for Non-Gamers | 42          |

