Pokemon Game

A Project Work

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING IN CSE (INFORMATION SECURITY)

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DECLARATION

I, ‘Abhay Tomer’, student of ‘Bachelor of Engineering in Information Security, 2020-2024 Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled ‘Pokemon Game’ is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

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Place: Chandigarh University

ABSTRACT

The report gives a brief detail about the project - Pokemon game: A game designed to be played on a console, interacting with the world of Pokemon in form of texts and commands. The game is intensively written in C++ language. The game uses Ascii characters only and does not employ any of the pre-existing graphics API's.

ACKNOWLEDGEMENT

I would like to express my special thanks to my teacher Ms. Nishu Bansal who gave me the golden opportunity to do this wonderful project based on Pokemon, which also helped me in gathering a lot of information and do research on making a console game in C++. I came to know so many new things about game mechanics and how any game is designed from the ground up.

Secondly, I would also like to thank my teammates who helped me make this game which was a mammoth task.

Table of Content

1) INTRODUCTION

a. Project Definition -

This is a project based on the original Pokemon game made back in 1996 for Game Boy. Our project contains Story Mode like the original pokemon game and also an Arcade Mode for quick battles and spares between the pokemon.

It also contains Pokedex for keeping the database of pokemon including their type, Pokedex index, attacks, and basic overview of the pokemon.

b. Project Specifications/Overview -

- The language used: C++
- Modules used: stdlib, windows, time, conio, and stdio.
- Concepts used: Game While loop, Conditional statements, Strings, Booleans, jump statements, system configs, time, random, and Coordinate theory of Console.

c. Hardware Specification -

- the program runs on 4 threads and 8MB of ram so it can basically any pc running Windows NT-based operating system.

d. Software Specifications -

- The language used: C++, GCC compiler path (gcc ver 8.1 or above)
- Windows 32 module

2) OBJECTIVES

The Objective of The Pokemon project is to provide a gameplay experience that is similar to the original pokemon. The game includes the following modes:

a. Story Mode is like the original pokemon game with a map to roam and travel to different Gyms to fight Gym leaders.

b. Arcade Mode for quick battles and spares between the pokemon.

c. Pokedex for keeping the database of pokemon including their type, Pokedex index, attacks, and basic overview of the pokemon.

3) METHODOLOGY

The Pokemon game is made keeping in mind the original so it contains a Story Mode like the original pokemon game and also an Arcade Mode for quick battles and spares between the pokemon.

It also contains Pokedex for keeping the database of pokemon including their type, Pokedex index, attacks, and basic overview of the pokemon.

a. STORY MODE

- Story mode contains a map in which you can roam around and go to different Gyms in the map where you can have a pokemon battle with the Gym Leader.
- You can collect up to 3 Gym badges, doing so will complete the ultimate goal of the story mode and give you the title of pokemon master.

b. ARCADE MODE

- In Arcade Mode, you can choose between the given pokemon and then have a spare with the CPU.
- You will have 4 different attacks with different damaging power, some are strong and some are quick attacks.
- The CPU will choose random attacks and when the health of one pokemon reaches zero, the battle ends.
- There is a win counter that will count the number of times you win against the CPU.

c. POKEDEX

- In Pokedex, you can look at the stats of the pokemon available in the database.
- You can see data such as:

1. Pokemon Index
2. Pokemon Type
3. Pokemon overview
4. Pokemon Attack

- You can also see the ASCII Art of the pokemon

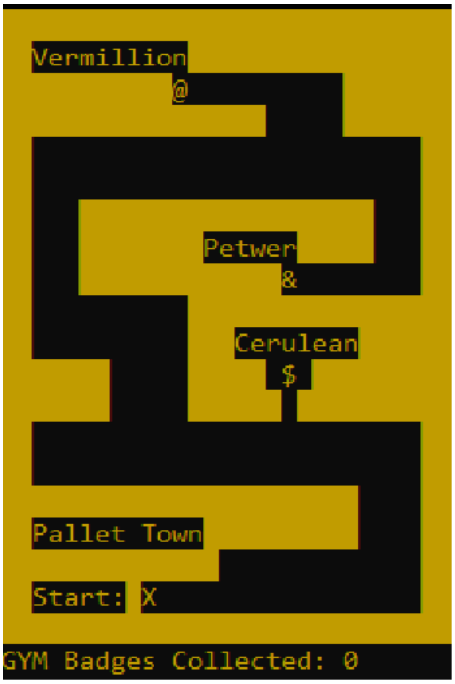
4) RESULTS AND DISCUSSION

- HOME SCREEN

- ARCADE MODE

- POKEDEX

- ASCII ART and MAP



5) CONCLUSION

- Our team was able to make a fully functional Pokemon Win 32 console game with the use of C++ language. The game utilizes only Ascii characters to display the UI/UX of the game.

- This is a very light application that can work completely based on basic logic and the use of inbuilt windows.h features.

6) TEAM MEMBERS

- Tolesh Pathak (20BCS3521) - Logic and Implementation
- Abhay Tomer (20BCS3566) - Designing and Structuring
- Gautam Sharma (20BCS3548) - Research and Documentation