

VIETNAM NATIONAL UNIVERSITY, HO CHI MINH CITY
UNIVERSITY OF SCIENCE — VNUHCM
Faculty of Information Technology

PROJECT WORK DIVISION — THE GAME OF GO
(final version)

Subject: Introduction to Computer Science

Student: Vo Ba Thong
Student ID: 25125036
Submission Date: December 14, 2025



Ho Chi Minh City, 2025

1 Team Members

The project "The Game of Go" was developed by the following member:

No.	Student ID	Full Name	Role
1	25125036	Vo Ba Thong	Full-stack Developer

Table 1: List of Team Members

2 Responsibilities

As this is an individual project, all components outlined in the requirements specification were implemented by the sole team member. The workload was managed by dividing the project into distinct functional modules.

Detailed Task Breakdown

Vo Ba Thong (25125036) is responsible for:

1. Game Logic Implementation (Core):

- Implemented the board representation and coordinate system.
- Coded the rule enforcement engine (Capture, Ko, Suicide).
- Developed the `GameState` management system (Switching between Menu, Game, Settings).
- Implemented the Territory Scoring algorithm using BFS.

2. Artificial Intelligence (AI):

- Developed the `BotManager` singleton.
- Implemented `PachiBot` to interface with the external Pachi engine via pipes (Hard Mode).
- Implemented `MiniMaxBot` for internal logic (Easy Mode).

3. User Interface (UI) Assets:

- Designed all UI components using SFML (Buttons, Sliders, History List).
- Created visual effects (Animations for placing stones, End-game overlays).
- Managed resource loading (Textures, Fonts, Sounds).

4. Testing Documentation:

- Conducted unit testing for game rules.
- Wrote the Project Report and this Work Division document.
- Prepared the submission package.

3 Collaboration Tools

Although developed individually, professional version control and project management tools were utilized to ensure code stability and progress tracking.

1. **GitHub:**

- Used as the remote repository for source code storage.
- Facilitated version control and backup.

2. **GitHub Desktop:**

- Used as the GUI client for managing commits and pushes.

3. **Code::Blocks 20.03 (MinGW):**

- The primary Integrated Development Environment (IDE) used for writing, debugging, and compiling C++ code.

4. **Overleaf:**

- Used for drafting and compiling the LaTeX documentation (Report and Work Division).

4 Project Repository

The complete source code, assets, and documentation for "The Game of Go" are hosted publicly on GitHub. You can access the final version via the link below:

`https://github.com/vbthg/The-game-of-Go-Final-Version`