

WEEK IN HANOI: CARBON QUEST

Introduction and Game Theme Topic Justification

Hanoi City has been alertly listed as a top 10 place with the most air pollution around the world earlier this year - 2025. This has raised extreme concern for the people living in the city because of diseases it might cause for their health due to this circumstance. One of the pollutants that contribute to developing this hazardous situation is Carbon Dioxide (CO₂). In the effort to restore the healthy Air Quality Index, the need to reduce CO₂ is one of the effective solutions to this problem. Therefore, we developed a game called Hanoi Eco to raise the awareness of Hanoi's populace in adjusting their daily activities.

Potential Impact

This can help to improve their lifestyle quality through calculating how much CO₂ emitted to the surroundings in a week; giving tips to alternate habitual pathways; and providing a chance to atone the released CO₂ by donating 'eco' money for environmentally friendly projects such as: planting trees, constructing Wind Power Plants that gradually take part in generating 'green' electricity for households applications, etc.

Technology Stack

Based on the requirements of the competition, our tech stack consists of plain HTML, CSS, and Javascript with major help from ChatGPT and Copilot.

Game Mechanics

You will play the game as a citizen in normal daily life. First, you get to choose whether you are going to stay at home or go outside for outdoor activities. Each of the choices you make will or will not contribute to emitting CO₂ gas and it is counted towards the total amount of one day. If you want to go out, you can choose whether you will use transportation or walk in bear feet and the destination. After reaching the destination, a quiz pops up to test the 'eco' knowledge of yours and if you answer correctly, you will earn 'eco' money; otherwise, you will gain nothing. You should base on your daily routine activities to choose the route for a day in a game. Consequently, when you go through 5 days a week, the final report for total of CO₂ emissions with 'eco' money you have achieved will appear.

Reflection

The game is still under development with basic features contributing to guiding people following the more suitable and eco-friendly routes. It can provide a variety of possible choices to make for a day. It can successfully summarize the relative total CO₂ emissions for the whole week. The player will be able to learn which route options that emit the least or no CO₂ gas to earn 'eco' money for participating in atoning the cause through 'green' projects. However, there are some downsides to this game which will be listed as follows:

The player can only choose one mode as a 'single' person. Other characters with different circumstances like family, teachers, employees, etc will be implemented to choose where it is suitable for each life case.

Visualization needs to be upgraded with more detailed design such as trees, grass, roads, walk paths, etc. This will improve the user experience while playing the game.

Since this is only for simulation purposes, the money used in this game is artificial and is not actually donated to any real-life projects. If we have an angel investor, we can have a proper programming base to further extend the functionality of acquiring 'eco' money that can be delivered to actual 'green' projects as real money to benefit the government as well as encourage people to change their habit into making the Air Quality improvements in Hanoi City.