

Title: A Reflective Analysis of Our Karnaugh Map Project

Scenarios Group 24

YuNgong Zhang (Peter Zhang)

Student Number: 22017725

Introduction

Our group embarked on a project centered around the Karnaugh map, a technique used to simplify Boolean algebra expressions. In this essay, I will reflect on our approach to brainstorming and implementation, discuss the potential impact of targeting a different audience, address the shortcomings and difficulties we encountered, and examine the lessons we learned throughout the process.

Brainstorming and Implementation

During the initial brainstorming phase (Scenario 1), I introduced the idea of using the Karnaugh map as the foundation for our project. The team promptly self-studied the concept, and we unanimously agreed to proceed with it. The absence of disagreements in both the brainstorming and prototyping/implementation stages (Scenario 2) facilitated a smooth and efficient workflow.

Target Audience Considerations

Our project was specifically designed for students seeking a deeper understanding of Disjunctive Normal Form (DNF) and Conjunctive Normal Form (CNF) in Boolean algebra. If we had chosen a different target audience, the Karnaugh map might not have been the primary focus of our project. Tailoring our approach to suit the needs of a particular audience was a crucial aspect of the development process.

Challenges and Shortcomings

Throughout the project, I faced several challenges, including time constraints that prevented us from optimizing the code and making it as readable as possible. Additionally, learning Python, a new programming language to me, proved to be difficult. Lucy and I also encountered unforeseen difficulties in developing a user-friendly interface and ensuring cross-compatibility between different devices, such as Android and Linux.

Lessons Learned and Contributions

Throughout this project, I gained valuable knowledge in Python programming and honed my skills in product management. Furthermore, I played an instrumental role in organizing the team, dividing tasks into manageable portions, and setting deadlines. Our project was not

only a technical endeavor but also an opportunity to refine my abilities in motivating and coordinating team efforts.

Target Audience Focus

Keeping our target audience in mind was essential while working on the project. To ensure our application was suitable for students with a foundational knowledge of Boolean algebra, we consistently ensured that our project would cater to their specific needs and level of understanding.

Conclusion

In conclusion, our Karnaugh map project offered a valuable learning experience in various aspects, such as teamwork, programming, and project management. Although we faced some challenges and limitations, we remained focused on our target audience and their needs. The lessons we learned from this experience will undoubtedly serve us well in future projects and contribute to our growth as developers and team members.