

Reflective Report

For

**Conqueror Gamer Management by using an Artificial Intelligence**

**(CGM)**

**BSc (Hons) Computer Science and Software Engineering**

**University of Bedfordshire**

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# Introduction

## Project background

This reflective report is based on the student project the scholar is currently engaged in for the University of Bedfordshire degree program with a focus on computer science and software engineering. The project's goal is to develop an artificial intelligence-based computer program. artificial intelligence-based Conqueror Gamer Management (CGM). Since the start of the study, several areas that could use more development have been found, and various strategies for implementing features have been put into practice to increase the project's originality. One is anticipated to become an IT expert by the project's conclusion by raising their skill level and mastering tools used in the industry.

## Project goals

With a focus on efficient time management, this program offers several gaming-related assistance options. A selection of pre-defined time packages is instantly generated by the software and displayed to players in an intuitive format. The user is given straightforward directions to follow selecting a time package. The user is then informed, in line with the selected time package, when they should cease playing the game. To succeed when using the software, these goals are necessary.

## The purpose of the reflective report

This reflective study aims to assess the researcher's personal development, project management methods, and creation of the desktop program Conqueror Gamer Management (CGM). The study also seeks to examine the difficulties encountered, errors made, and lessons learned while offering suggestions for future initiatives.

## Report organization

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# Self-Direction

## How self-motivation benefited the project

Self-motivation was crucial to the project's overall achievement. As an academic, the researcher was dedicated to identifying the causes of the video game addiction and developing a remedy. This endeavor helped me stay committed and concentrated even when challenges emerged. The researcher was inspired to create a strong and practical PC application, which gave the researcher the motivation and drive to finish the project.

With the aid of the researcher's efforts, the challenges and obstacles encountered while developing the project were successfully overcame. For instance, the researcher was driven to find answers and solutions when confronted with technological difficulties or difficulties integrating specific features in order to ensure the project went forward.

## The importance of initiative for project success

The success of any endeavor depends heavily on the ability to take charge of a circumstance and get things done. Since the researcher noticed the issue of video game addiction and the need for a remedy, the researcher's initiative in this project was immediately apparent. The scholar used the CGM desktop program to take the initiative to further investigate the subject, conduct research, and create a solution rather than waiting for someone else to take care of the issue.

Since it shows a proactive strategy to issue solving and decision making, taking the initiative is crucial. Additionally, it contributes to creating a feeling of control and accountability for the undertaking, which may increase motivation and engagement. Without the effort, the project might never be completed and the advantages of CGM implementation might not yet have been realized.

Finally, the success of any endeavor depends heavily on self-direction, including self-motivation and initiative. The significance of self-direction in project management is clearly demonstrated by the researcher's commitment to investigating the problem of video game addiction and creating a remedy using the CGM desktop application.

## Time management strategies

As a researcher, I arranged the task using a Gantt chart. For this, a work breakdown structure was developed. The stages of documentation and execution should be completed in accordance with the pre-planned timeline. Before the researcher first submits the project proposal, he starts by conducting research to decide on a topic and collecting data by reading journals, articles to identify the required technologies, developer requests, technologies to be synchronized and other relevant information to complete the project. The job was finished on schedule thanks to the use of the web-based project management and collaboration application Trello. was According to the set deadlines, all papers are written and filed. The scheduled timetable was frequently followed during implementation. A few obstacles did arise, though.

* The User Interfaces took longer to complete than anticipated.
* The prototype took longer to build than anticipated.

Before the project is finished, the created features are tried in accordance with the allotted time, allowing any mistakes to be fixed. The required paperwork will be produced while the duties are ongoing. Overall, this system will open the door for cutting-edge approaches to testing and examination.

## The Effect of Self-Management on Project Results

Because it entails accepting accountability for one's actions and choices, establishing objectives, organizing tasks, and effectively managing time, self-management is crucial in project management. The CGM project's performance was significantly affected by the researcher's self-management abilities, including self-motivation, initiative, and time management.

Moving the project along required the researcher's self-motivation and commitment to finding a cure for video game addiction. In addition, the researcher assumed control of the project's development and carried out extensive study that helped make it successful.

The project was finished on time thanks to efficient time management techniques, including the use of a Gantt chart and observance of established targets. Additionally, using the Trello application, it was feasible to finish the project's current tasks almost without pausing. Despite obstacles like a late prototype finish and an inconsistent database choice, the researcher was able to surmount these difficulties and complete the project's goals thanks to their self-management abilities.

Overall, the researcher's capacity for self-management had a substantial impact on the outcome of the CGM project, highlighting the significance of initiative and drive in project management.

# Reflection

## Achieving Milestones and Current Status

According to the Gannt chart, the researcher has made a lot of headway toward finishing the project in terms of accomplishing goals. The planning part is complete, and this involves choosing a subject and carrying out a feasibility study to assess the project's viability from a financial, technical, resource, time, and risk perspective. The researcher has engaged in all supervisor sessions, finished the associated progress reports, and completed the project proposal, ethics form, and contextual report.

The researcher finished the creation of user interfaces during the planning process. The backend is only just getting started. showed the boss with a finished prototype. The scholar is accountable for the database's creation and implementation. synthetic intelligence, i.e. At the following Superintendent conference, the Superintendent is anticipated to receive a complete presentation of the study component. Additionally, the testing process has started, which entails creating tests as well as correcting and refactoring the code. Additionally, the presentation is anticipated at the following supervisory conference.

The researcher is currently trying the application using sample data and collecting input during the assessment process. A thesis report and project poster are being finished during the paperwork period.

## Issues and Mistakes

There were several problems and errors that were made throughout the endeavor. To start, the issues that came up when collecting the criteria are as follows. Market study was conducted after the information was gathered. As an academic attempting to gather data for the system, the researcher encountered numerous challenges.

These are a few of the issues that can arise when performing market research:

* Send out a poll to many individuals to improve my application.
* Individuals with diverse viewpoints.
* Determining the age categories of computer game participants.

One of the biggest problems was that some functions didn't work the way they were supposed to. This was probably caused by flaws in the code, and it took more testing and troubleshooting to find and fix these problems.

The selection of the database was yet another error. The use of MongoDB was originally stated in the project plan, but it was later found that this database is conflicting with CGM, a desktop application. The choice was made to move to MySQL Workbench, which is better suited for a desktop program, as a consequence.

Additionally, it took longer than expected to finish the user interfaces. This was probably caused by the design's intricacy and the need for numerous revisions to achieve the ideal design. Additionally, the prototype's construction took longer than anticipated, most likely because more testing and fixing were required.

It is obvious in hindsight that more time and resources could have been devoted to testing and troubleshooting, which would have helped find and fix problems early in the project. Additionally, the user interface designs could have benefited from more consideration, which would have sped up the production process.

Overall, these problems and errors offered important project-specific learning chances. The scholar can gain a better understanding of what went wrong and how to prevent similar problems in the future by ruminating on these errors. It is also crucial to recognize that problems of this nature frequently arise during the software development process, and that to successfully deal with them, it is crucial to maintain adaptability and flexibility.

## Overcoming Obstacles

When looking at how the researcher overcame the challenges and found answers, it can be summarized as follows.

* Market research carried out after data collection: The researcher encountered difficulties while carrying out market research, including dealing with people with various points of view, delivering a survey to many people to better the application, and figuring out the age ranges of computer game players. is to better grasp the target audience and develop the app to meet their needs, it appears that the researcher ought to have conducted market research early in the project. The researcher used a variety of instruments and methods, including surveys, focus groups, and interviews with prospective customers, to carry out efficient market research in order to surmount this problem. Additionally, the researcher gathered pertinent market information, such as trends and figures connected to the gaming business, using online sources and data analysis tools.
* Functions not functioning properly: One of the most serious issues that the researcher encountered was that some of the application's functions were not working as anticipated, possibly due to coding mistakes. More testing and debugging were needed to identify and resolve the issues. To surmount this obstacle, the scholar performed more thorough testing and debugging during the development process than previously. This included the use of different testing tools and methods such as unit testing, integration testing, and system testing. In addition, the researcher sought feedback from more experienced software developers, questioned the supervisor at supervisor meetings, and conferred with experts in the field to help identify and fix issues.
* Error in database selection: Another difficulty the scholar encountered was choosing MongoDB as the database, which subsequently conflicted with the desktop program CGM. Because of this, the scholar was forced to move to MySQL Workbench, which is better suited for a desktop application. To address this issue, the scholar looked further into how different databases interacted with the application framework and computer language of choice. To decide on the best database to use, the scholar was also urged to speak with other software writers or specialists.
* Long development time for user interfaces and prototypes: The researcher encountered difficulties in developing the user interfaces and constructing the prototype, which took longer than anticipated due to the intricacy of the design and the need for multiple changes. This was due to a lack of knowledge or skill in user interface design and development. To surmount this obstacle, the researcher made several steps. The scholar is eager to learn more about user interface design concepts and best practices. Online materials and instruments were used.
* Insufficient testing and troubleshooting: The researcher later recognized that more time and resources could have been dedicated to testing and troubleshooting, which would have helped find and fix issues early in the project. This will entail working with a variety of testing and troubleshooting tools and methods as well as consulting with specialists in the area. The scholar could have spent more time and money on testing and debugging, enlisted the help of more seasoned software engineers, or sought the opinion of specialists in the field to solve this problem.

In conclusion, the researcher faced numerous challenges throughout the project, but they were all effectively overcome using a variety of techniques. Making educated database selection decisions, conducting thorough testing, and fixing, conducting thorough market research, consulting with seasoned designers and developers, and allocating more time and resources to testing and troubleshooting were some of these. The researcher was able to learn a lot from these difficulties and use them to steer clear of issues of a similar nature in the future.

## Lessons Learned for Future Projects

The researcher ran into several difficulties and challenges while working on this lone project, which necessitated fast thinking, flexibility, and problem-solving abilities to get past. Despite these obstacles, the scholar still learned important lessons and obtained insightful information that will be helpful for subsequent work. We will go over the key takeaways in this part and how they can be applied to future tasks. Project administration, appropriate study and documentation, software tool proficiency, and learning new languages and technologies are some of the teachings in this category. By using these lessons, the researcher can guarantee that future projects are carried out effectively and with improved planning.

* Managing a Project and Conducting Proper Research: From proper research and book analysis to market research, the researcher learned how to successfully handle a project. The researcher will attempt to use these skills in future tasks to ensure that the project is well planned and performed.
* Correct paperwork: The scholar also discovered the significance of accurate project paperwork. This entails recording the project specifications, project requirements, project accomplishments, and project-related problems. The scholar can make sure that all documentation is current and simple to obtain in future initiatives.
* The researcher showed proficiency with a range of software applications, including IntelliJ, Adobe Illustrator, MySQL Workbench, Unreal Engine, Adobe Photoshop, Microsoft Word, Microsoft Project, Notepad, Diagram Drawing Tools (Microsoft Project, Draw.IO, ProjectLibre), and SceneBuilder. Chrome by Google. The scholar can utilize these tools going forward and look into new software to boost project effectiveness and streamline processes.
* Programming languages and AI libraries: The scholar learned new programming languages such as Java, JavaFX FXML, and SQL, as well as AI libraries in Java to incorporate into the AI project. In future projects, the researcher can apply this information to choose the best computer language and AI library to accomplish the project's objectives.

Overall, the researcher's experience offered valuable insights into project management, software development, and the significance of appropriate study and documentation. By bringing these lessons to future projects, the scholar can enhance project results and achieve greater success.

# Comprehensive Thesis Contents

* **Title Page** - The header page is the first page of the document and contains the institution name and logo, the application title, the student ID, the student’s name, and the date of submission.
* **Abstract** - A short summary of the complete paper that provides an overview of the undertaking and its components.
* **Acknowledgement** - An expression of appreciation to those who added to the project's accomplishment.
* **Table of Contents** - A listing of the document's parts and divisions.
* **Figures collection** - A collection of all figures, charts, and diagrams used in the text.
* **Tables summary** - A summary of all the tables used in the text.
* **Acronyms/Abbreviations** - A collection of all acronyms and abbreviations used in the text.
* **Chapter One: Introduction -** This chapter will give an overview of the project's past as well as the aims and objectives for the creation of the artifacts. To aid the reader in understanding the document's substance, it will also explain the project's primary ideology.

**1.1 Project Background** - In this part, the project's inspiration is discussed.

**1.2 Aim and Objectives** - The project's aims and objectives are described in this part.

**1.3 Artefact Description** - This part will outline the features and application of the created system.

**1.4 Report format** - The report's format will be described in this part.

* **Chapter Two: Literature Review -** This volume will provide an overview of literature reviews done by various scholars in the same area, spanning a wide range of subjects and technologies.

**2.1 Introduction** - In this part, you will learn about the topic's past and context.

**2.2 The current discussion and research on computer gaming addiction** - This part will cover the current discussion and research on computer gaming addiction, including its meaning, causes, and possible repercussions.

**2.3 Major issues in gaming apps and services** - The major problems and challenges connected with gaming applications and services will be addressed in this part. This could include problems with user experience, security, speed, and other factors.

**2.4 Comparable Applications** - This part will give a summary of games or applications that are comparable to one another or that have been created in a related area. The advantages and disadvantages of these programs or games will be examined, and any chances or difficulties for the suggested undertaking will be noted.

**2.5 Computer-related health problems** - This part will discuss the possible health risks and problems brought on by long-term computer use, such as eye strain, back discomfort, and other musculoskeletal conditions, as well as psychological problems like worry and melancholy.

**2.6 The Importance of Time Management in Life** - The importance of time management in daily living will be discussed in this part, with an emphasis on how gaming and computer use can affect time management and productivity.

**2.7 Technologies used** - This part will provide a summary of the different technologies used in gameplay and computer apps, such as code languages, development tools, and hardware components.

**2.8 Research Gap** - In this part, any gaps or restrictions in prior research on the subject of the proposed project will be noted, and a chance will be given to describe how the project will attempt to fill those gaps. Additionally, it will aid in locating any possible study opportunities that might result from the project proposal.

* **Chapter Three: Market Research -** The public's opinions and reactions to the suggested system will be presented in this chapter, along with an explanation of why it is critical to create such an application.
* **Chapter Four: Methodology -** This chapter will detail the planning, data collection and analysis, system design, implementation, and testing procedures as well as the methodology used to create the system.

**4.1 approach** - In this part, the approach used to create the system will be discussed.

**4.2 Planning** - The project's planning process is covered in this part.

**4.3 Gathering and Analyzing Requirements** - This part will describe the procedures used to collect and analyze the data.

**4.4 Design** - The system's design will be covered in this part.

**4.5 Implementation and Testing** - This part will cover every aspect of the application's implementation and testing.

* **Chapter Five: Assessment -** The assessment procedure will be covered in depth in this chapter, along with a critical analysis based on the application evaluations.
* **Chapter Six: Final Verdict -** This volume will provide a general overview of the endeavor and its outcomes. It will also include restrictions and upcoming work that will talk about how the endeavor will advance in the future.
* **References** - A summary of all references referenced in the text.
* **Appendices** - Additional materials, such as technical specs or user guides, that are not required by the primary content of the document but may be helpful to the viewer.

# Conclusion

The evolution of the Conqueror Gamer Management (CGM) desktop application, project management techniques, and personal growth have all been covered in this introspective report. The study emphasizes the value of self-direction in project management, including self-motivation and effort. The importance of self-direction is demonstrated by the researcher's dedication to studying the issue of video game obsession and developing a solution using the CGM PC application. The success of the project is stressed in the report along with the significance of effective time management techniques and self-management skills, such as self-motivation, effort, and time management. Despite challenges, the scholar was able to get past them and accomplish the project's objectives. Overall, this introspective report offers insightful information about the personal and project management abilities required to successfully complete a computer science and software engineering project.