# **ACKNOWLEDGEMENT**

Knowledge is not just limited on our books and our words; it differs on our experience, on a way we face the time and situation that passes across us. The project work on C++ is an excellent way to collaborate the knowledge in our mental altitudes in computer sector.

We would like to express my sincere gratitude to all the personalities who played a supportive role in bringing this project to the height of success. First of all, we would like to thank **our parents** who helped us a lot by providing suitable environment, accessories, economic support, etc. required for the project. Secondly, we would like to express our thanks of gratitude to subject teacher and computer instructor **Mr.Daya Sagar Baral** who provided us a golden opportunity for creating a project in C++ and are also thankful for his help and guidance. Besides, we would like to thank **college management** too. Finally, we extend our gratitude to our fellow programmers worldwide who helped a lot in getting new ideas and other helpful hands that helped us a lot in finalizing this project within the limited time frame.

I am also grateful for the insightful comments offered by our friends. The generosity and expertise of one and all have improved this project in innumerable ways and saved us from many errors.

Computer is an integral part of our life. Only theoretical development in Computer doesn’t necessarily bring positive impact in computer sector. Practical portion are indispensible also for the development in the computer sector. By doing this project, we really developed our skills related to different uses and applications of Object Oriented Programming.

Really, this project is **“an excellent example of a coordinated and united team and other** **helpful faces and hands.”**

**INTRODUCTION:**

Bricks Breaker is a classic game which certainly gave us an amazing childhood. Bricks breaker is programmed using C++ and SDL(Standard DirectMedia Layer) graphics library. Simple DirectMedia Layer is a cross-platform development library designed to provide low level access to audio, keyboard, mouse, joystick, and graphics hardware. C++ is high level language which was developed by Bjarne Stroustrup at Bell Laboratories. C++ is an enhancement to the C language. C++ has a powerful feature Object Oriented Programming which models real world problems and SDL is rich with graphics library, because of which we have used C++ as our programming language and SDL for graphics.

In this project, we have included different aspects of **C ++ like Classes and Objects, Operator Overloading and graphical programming features etc.** and investigated and applied the uses of those elements in programming language.

For creating the project, we have used VS code as a text editor developed by Microsoft and Windows as an operating system. Since VS code is used worldwide for software development, use of this editor will give us hands on experience on the functioning and features of the text editor. Furthermore, it will sharpen our skills and will certainly help us on our professional career.

Bricks Breaker may be an old game but it is still endured by many people, both children as well as adults. During the game development it brings back our old memories and while playing this game will take us back to our wonderful childhood.

**PROPOSED SYSTEM**

### **DESCRIPTION**

Bricks breaker originally known as Arknoid, is a fun game in which the player breaks the bricks with a ball which can bounce from a paddle located at the bottom which can move horizontally. This game will remind you of the classic arcade games of your past. The player objective is to break all the colored bricks on each level. I order to break a brick, you must hit it with the ball. Some bricks may take more than one hit to break. Use the paddle to avoid the ball from falling to the bottom of the screen. The angle at which the ball bounces off the paddle depends on the point at which the ball hit the paddle. Move the paddle side to side using the mouse and use space to fire the laser when you have the power. But, if the ball hits the bottom enclosure, the player loses and the game ends.

This game features different levels with different difficulties. The player will have 3 lives. A live will be lost if the ball misses the paddle at the bottom. If all lives are lost than, the player loses the game. The player gets points by breaking the brick. Once the player breaks all the bricks, the player will be advanced to a harder level. This game will also feature some unbreakable bricks which will act as barrier for the ball. This game will also have tutorial to teach a new player for playing.

## **Project Scope**

The main objective of this project is to create a fun game by using object oriented programming concepts and also learn about SDL and apply it in project. Besides entertainment, this program may not have wide range of application in the real world, but it teaches us about software development as a whole. Mini project like this are key for understanding the basic concepts and it also enables us to implement the theoretical knowledge into practical applications.

The project will include research, writing code, testing and debugging as well as taking feedback from friends. The workload is equally divided to each other in our team. The project will be completed within Shrawn 20th and will be submitted before deadline. A short presentation will be also provided after the completion of the project.

In any project, we face a lot of difficulties and constraints. One of the major difficulties that will appear along the development of the project will be time management. Hence, it will be crucial for us manage time.