Object oriented programming through java lab project Report

On

“BRICK BREAKER GAME”

Submitted in Partial Fulfilment of the Requirements For the award of the Degree of

# Bachelor of Technology In

**Electronics & Computer Engineering (ECM)**

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**2021-2022**

# DEPARTMENT OF ELECTRONICS & COMPUTER ENGINEERING SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY (AUTONOMOUS)



**CERTIFICATE**

This is to certify that the object-oriented programming through java lab project work entitled “’ **BRICK BREAKER GAME**”, submitted by **20311A1987 P TAPASWINI, 20311A1990 K SWETHA** towards partial fulfilment for the award of Bachelor of Technology Degree in in **Electronics and Computer Engineering** from Sreenidhi Institute of Science & Technology, Ghatkesar, Hyderabad, is a record of bonafide work done by them during the academic year 2021-2022 under our guidance and evaluation.

**MR. G HARISH REDDY MRS. K SREELATHA**

**Lab Project Coordinator-2 Lab Project Coordinator-1**

## Dr. D. Mohan

**HOD, ECM Department**

# DECLARATION

This is to certify that the PSP Lab Project Report titled **“BRICK BREAKER GAME” is a** record work done by me in the department of Electronics and Computer Engineering (ECM), Sreenidhi Institute of Science & Technology, Ghatkesar, Hyderabad.

The report is based on the project work done entirely by us and not copied from any other source.

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# ABSTRACT

The project that is going to be implemented will consist of a game in which the player smashes a wall of bricks by deflecting the bouncing ball with a paddle. The paddle will only move in a horizontal way and will be controlled by the player with the left and right arrows of the keyboard or with the mousse. The player will win this game after destroying all the bricks in the level. Similarly, the player will lose if he fails to catch the ball with the paddle 3 times.

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**CHAPTER-1 INTRODUCTION**

Java is defined by a specification and consists of a programming language, a compiler, core libraries and a runtime (Java virtual machine) The Java runtime allows software developers to write program code in other languages than the Java programming language which still runs on the Java virtual machine. The Java platform is usually associated with the Java virtual machine and the Java core libraries.  Java programs use the Java virtual machine as abstraction and do not access the operating system directly. This makes Java programs highly portable. A Java can run unmodified on all supported platforms, e.g., Windows or Linux. Object-oriented means we organize our software as a combination of different types of objects that incorporates both data and behaviour.

The **Brick Breaker Game In Java** It is made up of bricks that are aligned at the top of the screen. The player is represented by a little ball that sits on a small platform at the bottom of the screen. The arrow buttons on the computer can be used to move the platform on the screen from left to right. The player uses the platform to keep the ball moving forward. The objective is to break as many bricks as possible without hitting the ball with your platform.

# CHAPTER 2 OBJECTIVE

The main theme behind developing brick breaker game using java is to provide a creative and competitive environment for the players who will use this system. **It helps in the development of creative thinking –** Playing games can help you become more creative in the long run. This stimulus can promote a sense of creativity and boost the brain’s overall capacity for diverse and creative thinking since players engage problem-solving skills when playing games. **It aids in the reduction of stress**The most important advantage of playing games is the stress alleviation that these games can bring to persons who are overworked. Anxiety sufferers may find much-needed relief from the daily grind by pulling out their devices and playing some brick-breaking games.

# CHAPTER 3

**SOFTWARE REQUIREMENTS AND DESCRIPTION**

1. **JAVA INTERPRETER:**

Java is a platform-independent programming language. It means that we can run Java on the platforms that have a Java interpreter. It is the reason that makes the Java platform-independent. The Java interpreter converts the Java bytecode (.class file) into the code understand by the operating system. In this section, we will understand what is an interpreter in Java, the features of the interpreter, and how does the Java interpreter work. We will also see how it is different from a compiler.

# NOTEPAD OR MS WORD:

Notepad isn't just for taking notes and opening readme files. You can also use Notepad to make basic computer programs. This can be done by creating batch files that run scripts in the Windows Command Prompt. We can also write lines of code inside Notepad.

By using Notepad, a programmer can write java programs and execute them, or create "batch" files that can execute multiple programs, including java programs. A programmer can use any text editor to write a java program. For the Windows operating system, the Notepad program exists as a plain text editor that programmers can use to write any sort of programs.

1. **NETBEANS IDE:**

It is an integrated development environment (IDE) for Java. NetBeans allows applications to be developed from a set of modular software components called modules. NetBeans runs on Windows, macOS, Linux and Solaris. In addition to Java development, it has extensions for other languages like PHP, C, C++, HTML5, and JavaScript. Applications based on NetBeans, including the NetBeans IDE, can be extended by third party developers.

# CHAPTER 4

**IMPLEMENTATION**

## INPUT:

# CHAPTER-5 WORKING

In this puzzle game we use awt components to design our requires grid and insert the numbers of the puzzle which we created by using another component of awt i.e layout and frames .

The working of the program starts with importing the packages of awt inorder to use awt components to create puzzle grid and insert values in it. After importing packages then we start declaring buttons in a method called puzzle also the button’s location and numbering also is given to each button which is being created to use in our grid of puzzle. After creating the buttons then all the buttons are added to the frame. After adding all the buttons then visibility of the frame is true because the default setting of visibility is false.

After adding all the buttons then label is set for each and every button in order to match the logic given in the puzzle .

If a puzzle is just a one-player game, and a one-player game is just a grid where you have to find a sequence of moves from the initial state to the end state.

After all, the correct sequence of moves is just a path from one vertex, labelled as the initial state of the puzzle to the ending state, which is the solved puzzle.

The player can never see very clearly beyond the first few jumps away from their current position. Instead, the player must try to move in the general direction of the solution, without seeing precisely where the moves will lead them. In order to do this effectively, the solver must somehow generate ideas for which positions of the puzzle are closer to the solution state than others, and which moves are likely to result in ends.

# CHAPTER-6 RESULTS AND OUTPUT

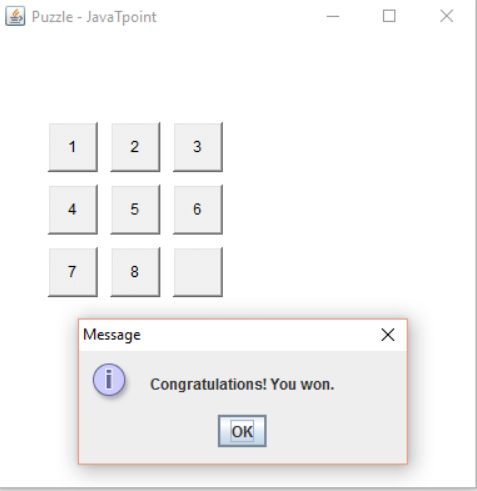


Fig 6.1 RESULT OF PUZZLE GAME USING AWT

# CHAPTER-7 CONCLUSION

Java was developed to support the learning and teaching of object-oriented programming, and its design differs from other development environments as a result. The main screen graphically shows the class structure of an application under development (in a UML-like diagram), and objects can be interactively created and tested.

# CHAPTER-8 REFERENCES

https://projectsgeek.com/2014/11/puzzle-game-project-java.html