KEY TAKEWAYS:

- Problem Statement
- Abstract
- Ideation
- Concepts and Methods
- Empathy Chart
- Technical Diagram
- Proposed System
- Tools and Languages
- Scope
- Result
- Conclusion

PROBLEM STATEMENT

In a world full of violent games ,today children less than the age of 12 are introduced to violent and indecent games which not only affects their brain mentally but also decreases their ability to learn and memorise .

ABTRACT

"Smash The Brick" is an innovative game that combines the classic brick-breaking gameplay with an engaging quiz element. Players are tasked with breaking bricks using a paddle and ball, aiming to clear each level. However, interspersed within the gameplay are quiz questions covering various topics such as trivia, general knowledge, or educational subjects. To progress through the game, players must correctly answer these quiz questions alongside breaking bricks. This unique blend of arcade-style action and mental stimulation provides an entertaining and educational gaming experience, challenging players' reflexes and knowledge simultaneously. "Smash The Brick" offers a fun way to learn and test skills while enjoying the excitement of a traditional brick-breaking game.

IDEATION

We are developing a game in which bricks are aligned at the top of the screen. The player is represented by a little ball that sits on a small paddle at the bottom of the screen. The arrow buttons on the computer can be used to move the paddle on the screen from left to right.
The player uses the paddle to keep the ball moving forward. The objective is to break as many bricks as possible without hitting the ball with the platform.
In every level player has to complete the level after which they will have to give a short to quiz to move forward.

CONCEPTS AND METHODS

1. Game Design and Development:

   - Utilize Java programming with the Swing framework to create a graphical user interface (GUI) for the brick breaker game.
   - Implement game mechanics such as ball movement, paddle control, brick collision, and scoring system
   - Design levels with varying difficulty, incorporating different layouts and brick configurations.

2. Quiz Integration:

   - Develop a database or file system to store quiz questions, answers, and associated information.
   - Integrate quiz prompts into the gameplay, triggered by specific events or milestones in the game.
   - Implement user interaction for answering quiz questions, such as selecting options or inputting responses.

3. Educational Content:
 - Select quiz topics relevant to the game context or educational objectives.
 - Ensure that quiz questions align with learning outcomes and provide meaningful feedback based on user responses.
 - Explore adaptive quiz features that adjust difficulty based on player performance.

4. Documentation and Reporting:
 - Document the design process, implementation details, and challenges faced during development.
 - Provide a comprehensive analysis of the effectiveness of quiz integration in enhancing user engagement and learning outcomes.
 - Discuss the implications of findings and suggest future directions for research and development in educational game design.

By combining these concepts and methods, this project report aims to demonstrate the feasibility and effectiveness of integrating quizzes into a Java-based brick breaker game to create an engaging and educational gaming experience. This approach contributes to the broader field of educational game design by showcasing innovative strategies for leveraging gamification to promote learning and skill development.

EMPATHY CHART

WHAT USER SAYS

I want to play challenging games.
Parents want educational games.

WHAT USER THINKS

This seeks mental stimulation and challenges.
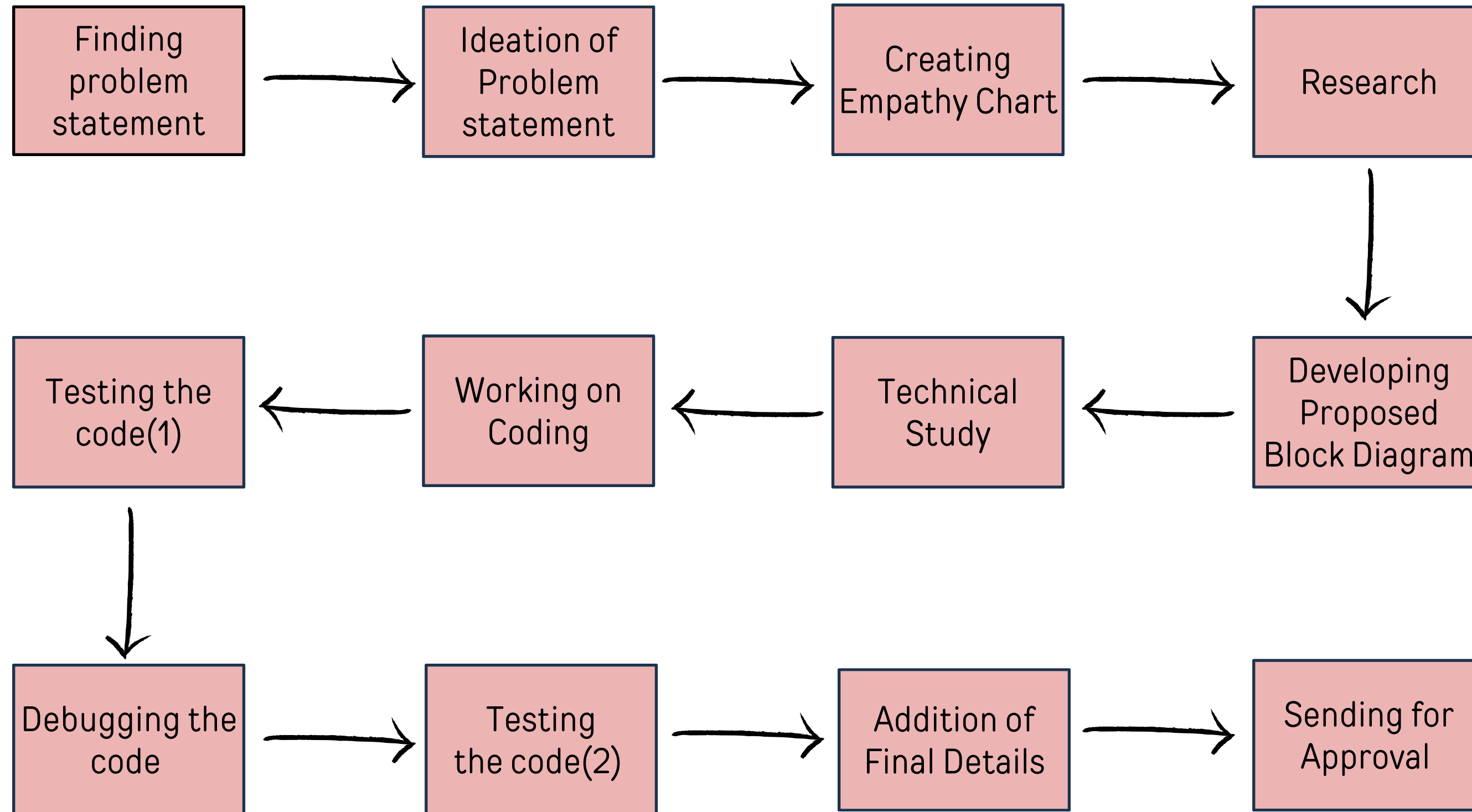Aims to engage students in learning outside the classroom.

WHAT USER DOES

Plays games for fun during leisure time.
Enjoys the quiz questions and tries to answer them all.

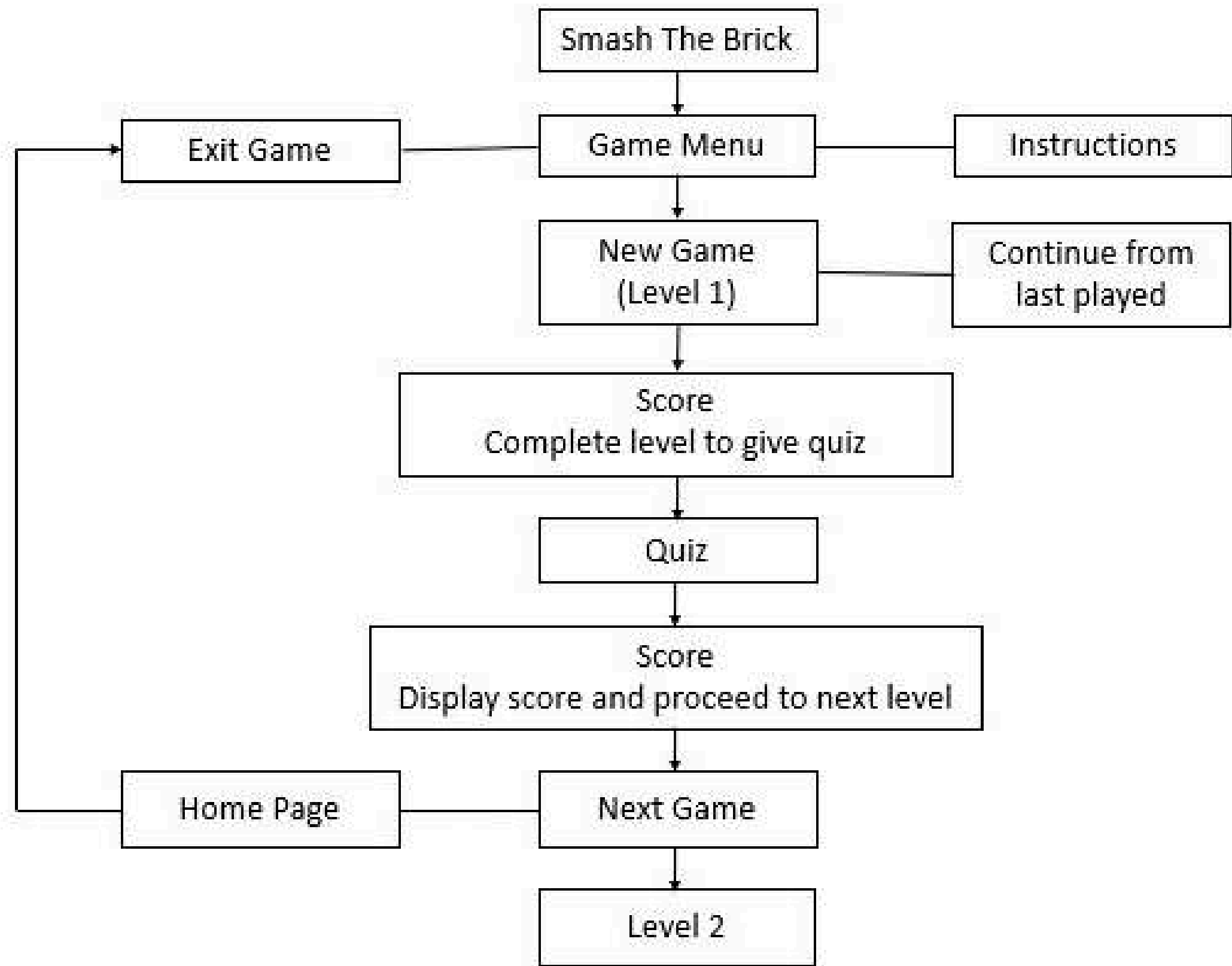## WHAT USER FEELS

Appreciates the combination of gaming and learning.
Sees the game as a valuable teaching tool.

TECHNICAL DIAGRAM

Finding problem statement	→	Ideation of Problem statement	→	Creating Empathy Chart	→	Research

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Testing the code(1)	←	Working on Coding	←	Technical Study	←	Developing Proposed Block Diagram

↓

Debugging the code	→	Testing the code(2)	→	Addition of Final Details	→	Sending for Approval

PROPOSED SYSTEM

Language: JAVA
Platform: Eclipse

TOOLS AND LANGUAGES

Language: Java

Java is a high-level, object-oriented programming language developed by Sun Microsystems (now owned by Oracle Corporation). Java is known for its simplicity, readability, and robustness, making it popular for developing a wide range of applications from web-based applications to mobile apps and enterprise software.

Platform: Eclipse

Eclipse IDE for Java Developers is a specialized version of the Eclipse Integrated Development Environment (IDE) tailored specifically for Java development. It is a comprehensive toolset designed to facilitate Java application development, offering a range of features and plugins that enhance productivity for Java programmers.

Package: Window Builder

A "Windows Builder" typically refers to software tools or environments used to create graphical user interfaces (GUIs) for applications running on the Microsoft Windows operating system. These tools provide developers with a visual way to design and arrange elements like buttons, menus, and windows without needing to manually write all the code.

SCOPE

The main feature of our game as follows: -

- Refresh your mind - Mobile gaming allows gamers to divert their attention away from their task. The brain is able to refocus and refresh as a result of this. Taking a break can help you be more productive at work.

- Creative thinking -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.

- Easy to understand - This game is very easy to understand as it does not have any complicated concept behind it.

- Learn and memorize -This unique blend of arcade-style action and mental stimulation provides an entertaining and educational gaming experience, challenging players' reflexes and knowledge simultaneously.

In future we are planning to add multi-player challenges for players sitting around the globe who are online.

RESULT
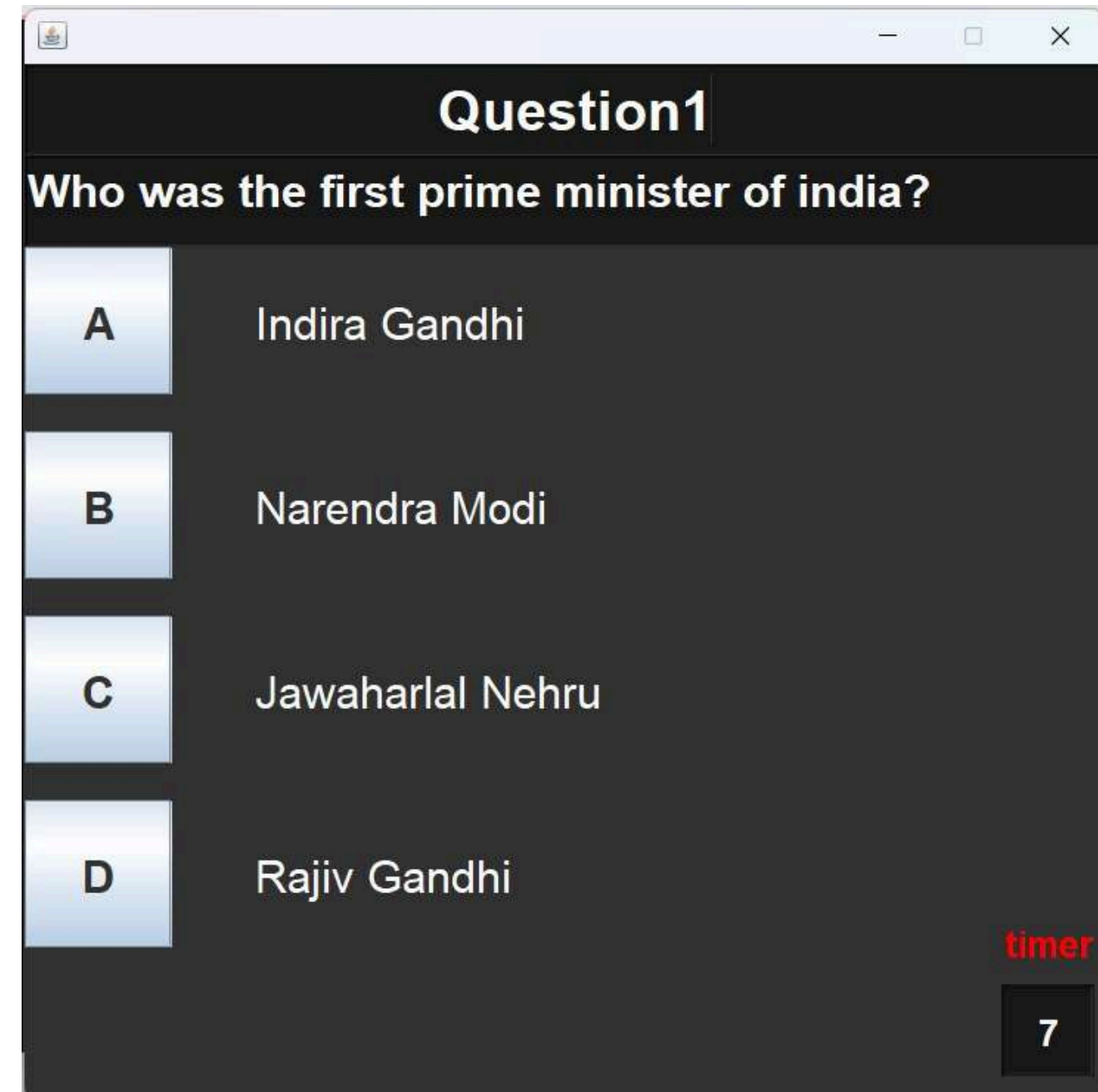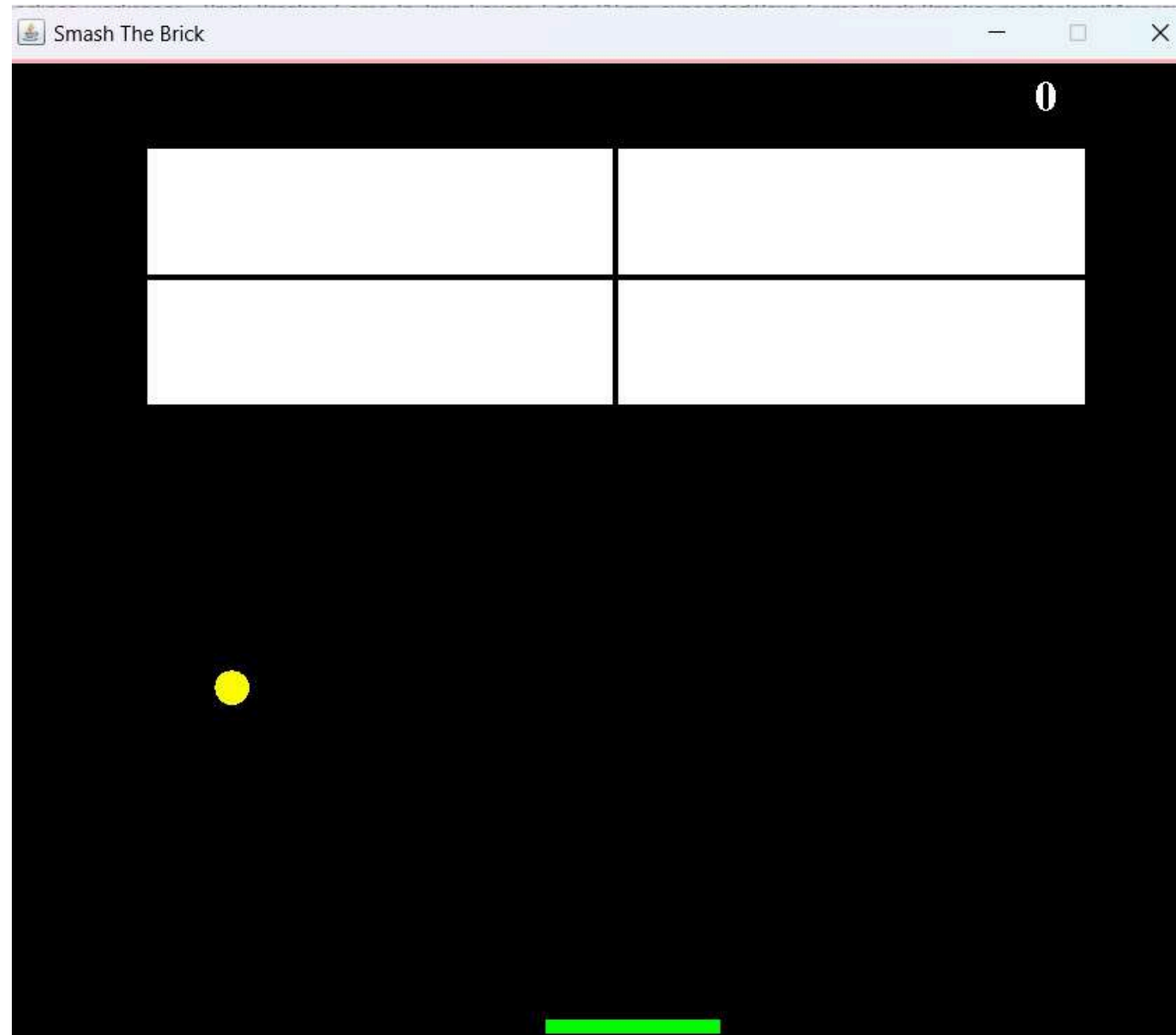
CONCLUSION

"**Smash The Brick**" offers a fun way to learn and test skills while enjoying the excitement of a traditional brick-breaking game, with its integrated quiz feature offers a fun and engaging gaming experience.

By combining the thrill of brick-breaking gameplay with quiz questions, the game not only entertains but also educates players.

With each level cleared, players not only showcase their reflexes but also expand their knowledge base.

This fusion of entertainment and learning makes "**Smash The Brick**" a standout choice for those seeking both fun and mental stimulation in their gaming experience.

THANK YOU!!!

-JANHAVI KHUNE, SANIYA SHIRADKAR, VIDHI NIMJE