**CU SHOOTER**

### A Project Work

*Submitted in the partial fulfillment for the award of the degree of*

# BACHELOR OF ENGINEERING

### IN

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**DECLARATION**

I, **‘Rishabh Bajpai’**, student of **‘Bachelor of Engineering in CSE’**, **session: 2017-2021**, Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled ‘**CU SHOOTER’** is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

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**Abstract**

This report focuses on the development of 2D Top-Down RPG Mobile and Desktop game, CU SHOOTER: The Adventurer. The project is based on Retro Pixel games containing 4 different dungeons for the player to play. It has multiple achievable and separately upgradeable weapons, player’s experience gaining system with 3 different player skins, computer controlled intelligent enemies to challenge the player along with simple NPCs and other interesting objects like chests, crates. Unlike the traditional Top-Down RPG games where player attack with sword, this game rather has guns to attack just like Survival Shooting games.

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**1.INTRODUCTION**

The games industry has had much growth in recent years. It is a great industry to get involved in as it allows creativity, innovation and freedom for developers and hobbyists. They get a chance to experiment with all forms of media including sound design, environment design and programming.

So we are working on a game called “CU SHOOTER” . This game will be played inside a building and we need to kill 3 people in order to win.There are multiple levels, To win this game you have to win all levels and in each level there are multiple challenges .

To develop this game we required some specific softwares:

Knowledge of c++

Visual Studio

Unreal engine

Epic game launcher

Windows platform

c++ will be used in backend

# PROBLEM FORMULATION

During software development, clones can occur in software intentionally or unintentionally. Developers tend to clone fragments of software during development to save efforts and expedite the development process.

From the literature review, it is observed that studies highlight the need of efficient and scalable approach for detecting code clones having software vulnerability. The existing techniques are not able to detect all types of vulnerable code clones. Different approaches suffer from high false negative rate and not scalable to large software systems due to high time complexity. So firstly, there is a need to optimized out whole setup for this project Second same subject systems should be used to compare the approaches which detect errors.

# 3.RESEARCH OBJECTIVES

The proposed research is aimed to carry out work leading to the development of an approach for vulnerable code clone detection. The proposed aim will be achieved by dividing the work into following objectives:

1. To understand and explore various types of software vulnerabilities existing in open source software.
2. To study and analyse various clone detection techniques that are suitable for vulnerable code clone discovery.
3. To design and develop the technique for vulnerable code clone detection.

To verify and validate the proposed system.

1.  To implement individual weapon upgrading system
2.  To implement various kinds of enemies that have the purpose to simply attack the player
3. until the death of the player.
4.  To add sound effects to player, enemies, weapons and other objects like doors.
5.  To design the game levels that will be simple yet beautiful.
6.  To make a User Friendly Interface that will be pleasant to look at.
7.  To add animations to all sorts of game objects like player, enemies, doors, water
8. including UI transitions.

# 4.METHODOLOGY

The following methodology will be followed to achieve the objectives defined for proposed research work:

1. Detailed study of epic game launcher , unreal engine will be done.

2. Installation and hand on experience on existing approaches of epic game launcher , unreal engine will be done. Relative pros and cons will be identified.

3. Various parameters will be identified to evaluate the proposed system.

4. Comparison of new implemented approaches with existing approaches will be done.

**5.RESULTS AND DISCUSSION**

More entertaining and more graphics can be added in future. It is forecasted that the gaming industry will generate great opportunities for **game** developers over the next two years. The gaming industry has grown its presence over various platforms – mobile, console, PC, online gaming and the industry is growing really fast along with the presence on all these platforms.

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Game Research  
From their website: "Game Research attempts to bring together knowledge on computer games from the areas of art, business, and science. Traditionally such cross-communication has been sparse to the detriment of all involved."