VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JnanaSangama", Belagavi-590018, Karnataka



A Mini Project Report on

"3D EGG CATCH"

Submitted in partial fulfilment of the requirement for the award of degree of Bachelor of Engineering

In

Computer Science and Engineering Submitted by

MAHADEVASWAMY J G (4NN20CS027)

SAHANYA P (4NN20CS045)

Under the Guidance of

Mr. AJAY A V

Assistant Professor Dept. of CSE



ESTD-2008

Department of Computer Science and Engineering
NIE Institute of Technology
Mysuru -570018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NIE Institute of Technology, Mysuru



CERTIFICATE

This is to certify that the mini project work entitled "3D EGG CATCH" is carried out by MAHADEVASWAMY J G bearing 4NN20CS027 and SAHANYA P bearing 4NN20CS045 in the partial fulfilment for the sixth semester of Bachelor of Engineering degree in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2022-23. The project report has been approved as it satisfies the academic requirements with respect to project work prescribed for the Bachelor of Engineering.

Mr. AJAY A V	Dr. Usha M.S
Asst. Professor	Associate Professor and I

Signature of the guide

Asst. Professor Associate Professor and Head

Dept of CSE

NIEIT, Mysuru

Associate Professor and Head

Dept of CSE

NIEIT, Mysuru

Signature of the HOD

External Viva

Name of the examiners	Signature with Date	
1	1	
2	2	

ACKNOWLEDGEMENT

We sincerely owe our gratitude to all people who helped and guided us in completing this project work.

We are thankful to **Dr**, **Rohini Nagapadma**, Principal, NIEIT, Mysuru, for having supported us in our academic endeavors.

We are thankful to **Dr. Usha M S**, Associate Professor and Head, Department of Computer Science and Engineering, NIEIT for providing us timely suggestion, encouragement and support to complete this mini-project.

We would like to sincerely thank our project guide, **Mr. Ajay AV.** Asst, Professor in Dept. of Computer Science and Engineering for providing relevant information, valuable guidance and encouragement to complete this mini-project.

We would also like to thank all our teaching and non-teaching staff members of the Department. We are grateful to the college for keeping labs open whenever required and providing us Systems and Required software.

We are always thankful to our Parents for their valuable support and guidance in every step. Also thank all our friends for their support and guidance throughout the project.

We express our deepest gratitude and indebted thanks to NIEIT which has provided us an opportunity in fulfilling our most cherished desire of reaching our goal.

Yours Sincerely,

Mahadevaswamy J G(4NN20CS027) Sahanya P(4NN20CS045)

ABSTRACT

The project "3D EGG CATCH" is a computer graphics mini project has core importance in the development of games. We have seen so many game on this site. Today also we are going to see the interesting loving game. It is simple, easy to play as well quite easy to code it, present to you the Catch Me Computer graphics with OpenGL. As name suggest, game is related to catching an egg. Use the S/s to start the game or Click Right mouse button then click 'Start Game'. As game stated birds(3 in number) will lay the eggs in certain speed depends on level. Move the basket with the Left mouse button and catch the egg in it. Score by catching the eggs and go to next level. The level changes automatically as you score cross the mark set for the particular level. Speed of the egg going down doubles as level changes. To quit the game press the Q/q or Click Right mouse button then click 'Quit

This project is written in C/C++ and used OpenGL (Open Graphics Library). Open Graphics Library is a cross-language, cross-platform application programming interface for rendering 2D and 3D vector graphics. The API is typically used to interact with a graphics processing unit, to achieve hardware-accelerated rendering.

TABLE OF CONTENTS

Chapter No	Chapter Name	Page No
1	Introduction	01
1.1	Computer Graphics	01
1.2	Applications of Computer graphics	01
1.3	Aim	02
1.4	Introduction to open GL	03
1.5	Project related concepts	04
1.6	Interface	04
2	Requirement Specification	05
2.1	Software Requirements	05
2.2	Hardware Requirements	05
3	Design	06
3.1	Window Design	06
3.2	Simulation Display	07
4	Implementation	08
4.1	Functions Used	08
5	Testing	10
6	Snapshots	11
7	Conclusion	14
	Bibliography	15

LIST OF FIGURES

Figure No No	Figure name	Page
Figure 1.1	Basic Block Diagram of Open GL	03
Figure 3.2	Menu Bar	06
Figure 3.3	Simulation Display	07
Figure 6.1	Front Page	11
Figure 6.2	Home Screen	11
Figure 6.3	Menu Interface	12
Figure 6.4	Simulation	12
Figure 6.5	Simulation Window	13

LIST OF TABLES

Table No	Table Name	Page No
Table 5.1	Test Cases for Mouse	10
	Interface	