

**Faculty of Computer Science**

**Future University in Egypt**

**BUBBLE**

Educational Games for Children

**Supervisor**

DR.Samah Ahmed Zaki

**Prepared by**

Mohamed Mahmoud El Badri 20194841

Mohab Khalid Mahmoud 20193015

Saif Eldin Ashraf Taha 20191737

Ibrahim Ayman Ibrahim 20193663

2022/2023

# **Abstract**

Contents

[**Abstract** 2](#_Toc115165920)

[1 . Chapter One: Introduction 4](#_Toc115165921)

[1 . 1 . Background 4](#_Toc115165922)

[1 . 2 . Problem Statements 4](#_Toc115165923)

[1 . 3 . Project Objectives 4](#_Toc115165924)

[2 . Chapter Two: System Analysis 4](#_Toc115165925)

[2 . 1 . Problem Description 4](#_Toc115165926)

[2 . 2 . Data Gathering 4](#_Toc115165927)

[2 . 2 . 1 . Literature Review 4](#_Toc115165928)

[2 . 3 . System Analysis 4](#_Toc115165929)

[2 . 4 . System Models 4](#_Toc115165930)

[3 . Chapter Three: System Design 4](#_Toc115165931)

[3 . 1 . System GUI 5](#_Toc115165932)

[3 . 2 . Database Design 5](#_Toc115165933)

[3 . 3 . Software Design 5](#_Toc115165934)

[3 . 3 . 1 . Hardware 5](#_Toc115165935)

[4 . Chapter Four: System Implementation 4](#_Toc115165936)

[4 . 1 . User interface implementation 5](#_Toc115165937)

[4 . 2 . Database implementation 5](#_Toc115165938)

[4 . 3 . Software implementation 5](#_Toc115165939)

[5 . Chapter Five: System Testing 4](#_Toc115165940)

[5 . 1 . Unit Testing 5](#_Toc115165941)

[5 . 2 . Integration Testing 5](#_Toc115165942)

[5 . 3 . System Testing 5](#_Toc115165943)

[6 . Chapter Six: Conclusion & Future Work 4](#_Toc115165944)

[**References** 5](#_Toc115165945)

# 1 . Chapter One: Introduction

## 1 . 1 . Background

## 1 . 2 . Problem Statements

## 1 . 3 . Project Objectives

# 2 . Chapter Two: System Analysis

## 2 . 1 . Problem Description

## 2 . 2 . Data Gathering

### 2 . 2 . 1 . Literature Review

## 2 . 3 . System Analysis

## 2 . 4 . System Models

# 3 . Chapter Three: System Design

## 3 . 1 . System GUI

## 3 . 2 . Database Design

## 3 . 3 . Software Design

### 3 . 3 . 1 . Hardware

# 4 . Chapter Four: System Implementation

## 4 . 1 . User interface implementation

## 4 . 2 . Database implementation

## 4 . 3 . Software implementation

# 5 . Chapter Five: System Testing

## 5 . 1 . Unit Testing

## 5 . 2 . Integration Testing

## 5 . 3 . System Testing

# 6 . Chapter Six: Conclusion & Future Work

# **References**