

PROFESSIONAL TRAINING REPORT
at
Sathyabama Institute of Science and Technology
(Deemed to be University)

Submitted in partial fulfillment of the requirements for the award
of Bachelor of Technology Degree in Information Technology

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SATHYABAMA INSTITUTE OF SCIENCE AND
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CHENNAI – 600119. TAMILNADU

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SATHYABAMA

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SCHOOL OF COMPUTING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafide work of Gnana sounthariya S(Reg.no. 38120025) who carried out the project entitled "Guessing Game" under our supervision from June 2020 to December 2020.

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Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I Gnana sounthariya hereby declare that the Project Report entitled "Guessing Game" done by me under the guidance of Dr. Mary Gladence. L M.E., Ph.D., at Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600119 is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE: 23/01/2021

Place: Chennai

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

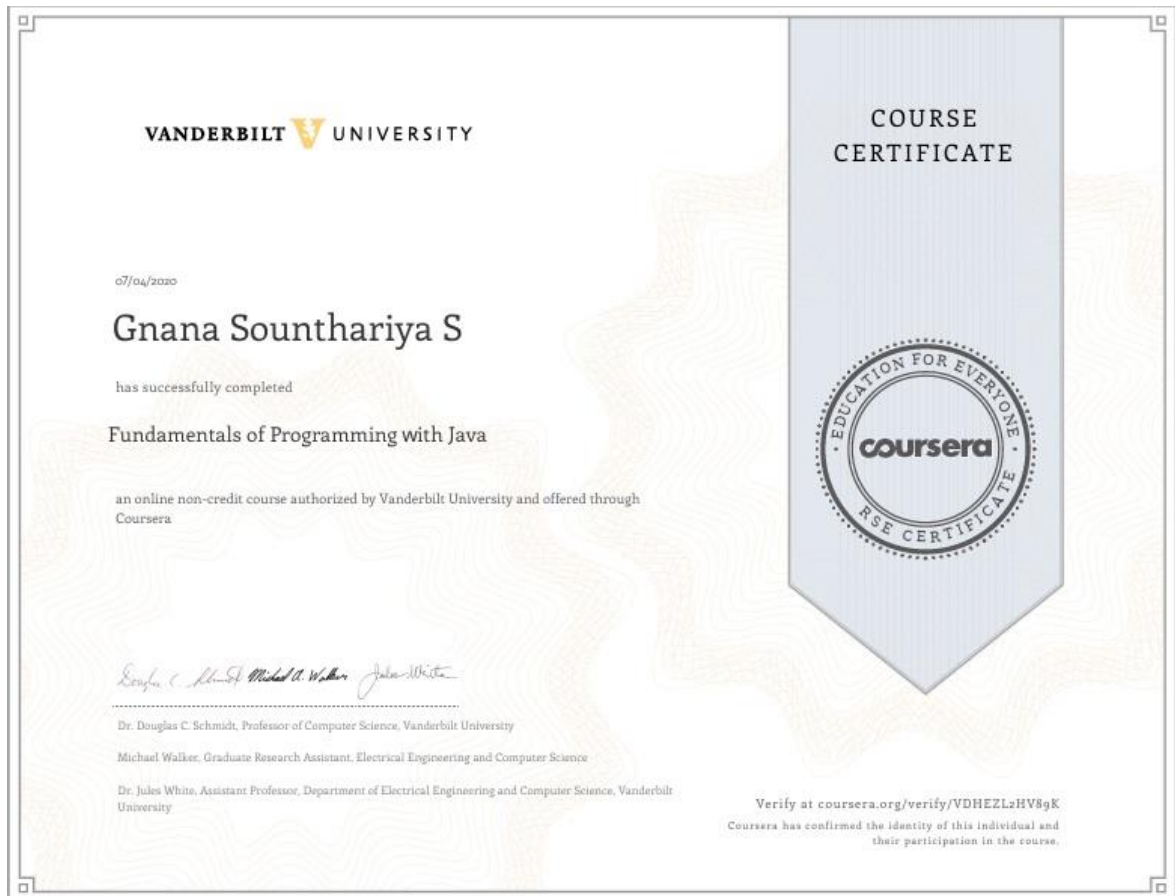
I am pleased to acknowledge our sincere thanks to Board of management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey our thanks to **Dr. T. SASIKALA M.E., Ph.D., Dean, School of Computing** and **Dr. R. SUBHASHINI M.E., Ph.D., Head of the Department, Department of Information Technology** for providing us the necessary support and details at the right time during the progressive reviews.

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I wish to express our thanks to all Teaching and Non-teaching staff members of the Department of **INFORMATION TECHNOLOGY** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE



ABSTRACT

Guessing Game

Guessing Game is a project that highlights the importance of one of the games that are of most prominence. The number guessing game can allow the users in guessing the numbers that display on the screen. It can also help the children to use the number guessing game as it can provide them the practice in guessing the numbers. The usage of the number guessing game is easily available through the use of this report. The number guessing game is one such game that is increasingly gaining importance due to its prominence among children. The synopsis on abstract on mini project report on number guessing game is available. The users can download synopsis on pdf to understand the effects of number guessing game

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CHAPTER 1

INTRODUCTION

1.1 GENERAL

Games are popular means of fun and entertainment for people of all age groups. It provides an excellent source of rest and relaxation for adults, and a innovating and invigorating challenge to younger children .Random number guessing game is a new type of challenge to a younger audience and a nostalgic challenge to adults. The user has to input a number within the given range .The system determines if the user has entered a correct number or not If the number is higher or lower than the correct number then apporpriate message is displayed.

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1.2 OUTLINE OF THE PROJECT

I introduce the number guessing game, as well as the Bayesian scheme used to analyze the game. The goal is to come up with a way to find the optimal guess at each stage of the game. This paper introduces the risk function, and claims that the guess that minimized the expected risk is the best one to make. Two entities are playing a simple game. One player thinks of a number from 1 to n , and the other player tries to guess at the number repeatedly. The first player tells the second if the guess is too high or too low, until the second player guesses correctly. A cost is associated with each verdict of “Too High” or “Too Low”. Let us call them ϵ_1 and respectively. The cost accumulates as the first player keeps guessing. The goal is to come up with the best guessing strategy that can minimize the cost

CHAPTER 2

AIM AND SCOPE

2.1 AIM

Number Guessing Game or “Guess A Number” is a very simple and short JavaScript gaming mini project. This game is built for students who are looking for mini-games built in Java to learn and practice some basic Java tools they're familiar with.

2.2 PROBLEM STATEMENT

The user has to input a number within the given range. The system determines if the user has entered a correct number or not. If the number is higher or lower than the correct number then appropriate message is displayed.

2.3 SCOPE

A number guessing game is a simple guessing game where a user is supposed to guess a number between 0 and N in a maximum of 10 attempts. The game will end after 10 attempts and if the player failed to guess the number, and then he loses the game.

CHAPTER 3

SYSTEM ANALYSIS

3.1 GENERAL

3.1.1 USER INTERFACE

The user interface (UI) is the point of human-computer interaction and communication in a device. This can include display screens, keyboards, a mouse and the appearance of a desktop. It is also the way through which a user interacts with an application or a website

3.2 SOFTWARES USED

3.2.1 CODE EDITORS USED

GDB Online Debugger

GDB online is an online compiler and debugger tool for C, C++, Python, PHP, Ruby, C#, VB, Perl, Swift, Prolog, JavaScript, Pascal, HTML, CSS, JS. Code, Compile, Run and Debug online from anywhere in world.

3.2.2 PROGRAMMING LANGUAGES USED

JAVA PROGRAM

Java is a class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let application developers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation..

- **Java.Util**

Java.util package contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes.

- **Javax.Swing**

Swing is a GUI widget toolkit for Java.[1] It is part of Oracle's Java Foundation Classes (JFC) – an API for providing a graphical user interface (GUI) for Java programs.

3.3 PROJECT DESCRIPTION

The aim of this study was to find out whether it was effective or not to teach English vocabulary by using guessing game to the fifth grade students of Elementary school 117 Palembang. The population of this study was all the students of elementary school 117 Palembang in the academic year of 2016/2017 with the total number of students was 205. Meanwhile, the sample of the study was taken convenience sampling method. There were 40 students who were classified as the control group and 40 students who were classified as experimental group. The method of the study was experimental method, and the type of experimental method is quasi experimental. In collecting the data, the researcher gave a test. In analyzing the data, the researcher used student's individual score, conversion score range, and t-test. Based on findings, the mean of students' pretest in experimental group was 72.125, while the mean of students' posttest in control group was 65.450. Furthermore, the result of independent sample t-test indicated

that value of t-obtained was 5.046 at significant level $p > 0.005$ for two-tailed test t-table is 1.9908. It is showed that t-obtained was higher than t-table, so it was concluded that H_0 was rejected and H_a was accepted. It is clear that teaching English vocabulary by using guessing game was effective to the fifth grade students of Elementary school 117 Palembang. Key words: teaching, English vocabulary, guessing game

CHAPTER 4

RESULTS AND DISCUSSION

4.1 SYSTEM REQUIREMENTS

- ☐ Operating System: Windows/Mac
- ☐ RAM: 4GB

- ❑ Processor: 64x 1.0Ghz processor
- ❑ ROM: 8GB

4.2 RESULT

The above system is an implementation of the key classes and features of java. It helps in providing a fun and exciting time pass for people of all age groups. The model can be improved by integrating this mor active UI elements and incorporating net connectivity

CHAPTER 5

CONCLUSION AND FUTURE WORK

5.1 CONCLUSION

My Guessing Game is where you put a number in the input and press the button. If the number is too high it will go through the flow chart and then it will come up in the output box that your number is too high. If the number you put in was too low then it would go through the flow chart and in the output box it would

tell you that your number was too low whereas if you got the number correct it would also go through the flowchart but would tell you in the output box it would say that until you got the number spot on. This will keep happening until you get the right number

5.2 FUTURE WORK

If you'd like to practice developing a similar number guessing game on your own, you can incorporate further details such as:

- limiting the number of attempts
- adding more than one round
- displaying win/loss score
- giving points to the user based on the number of attempts, etc.

5.3 REFERENCES

1. <https://en.wikipedia.org>
2. <http://www2.lawrence.edu>

APPENDIX

A. SCREENSHOTS

OUTPUT

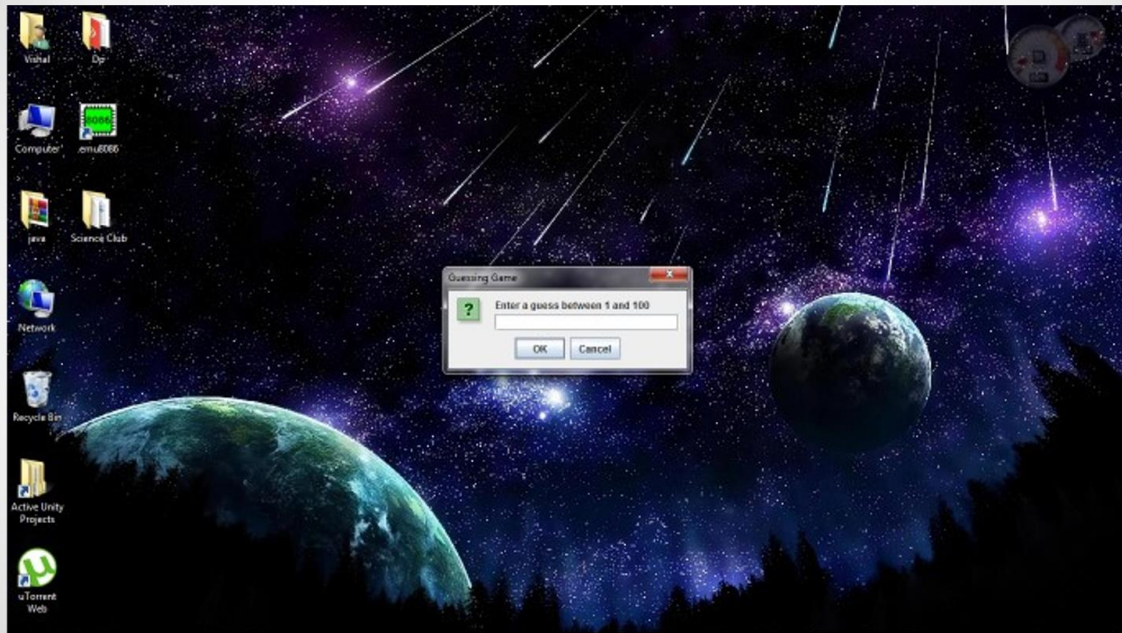
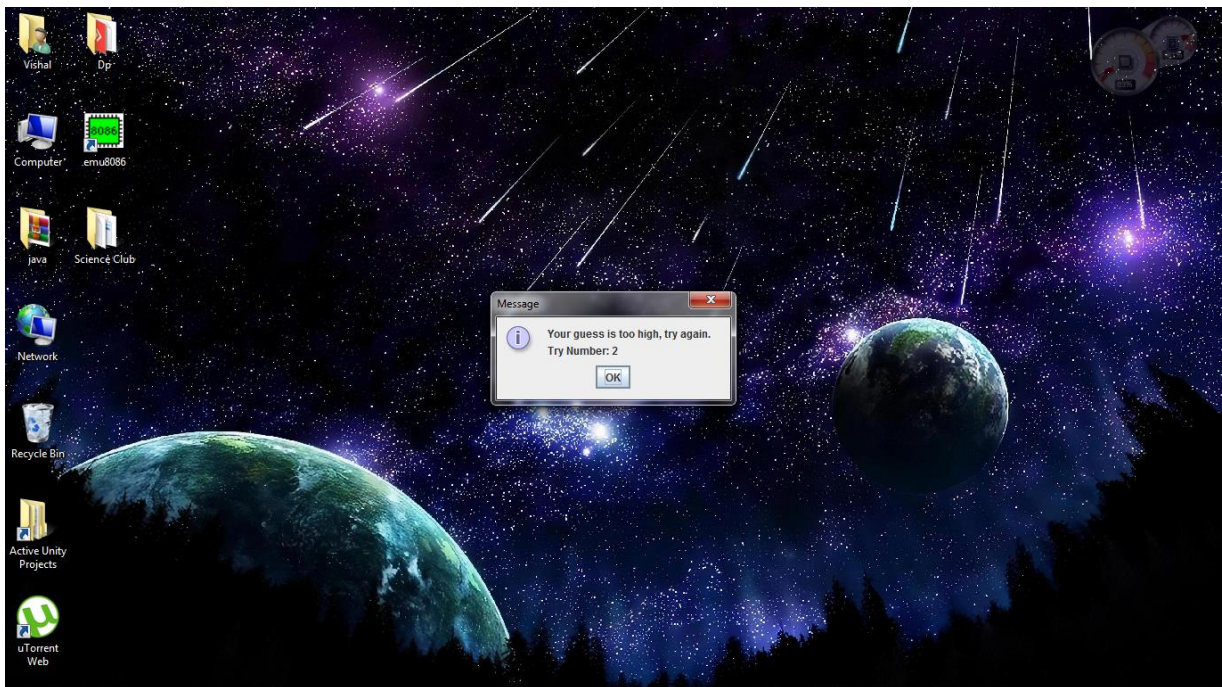
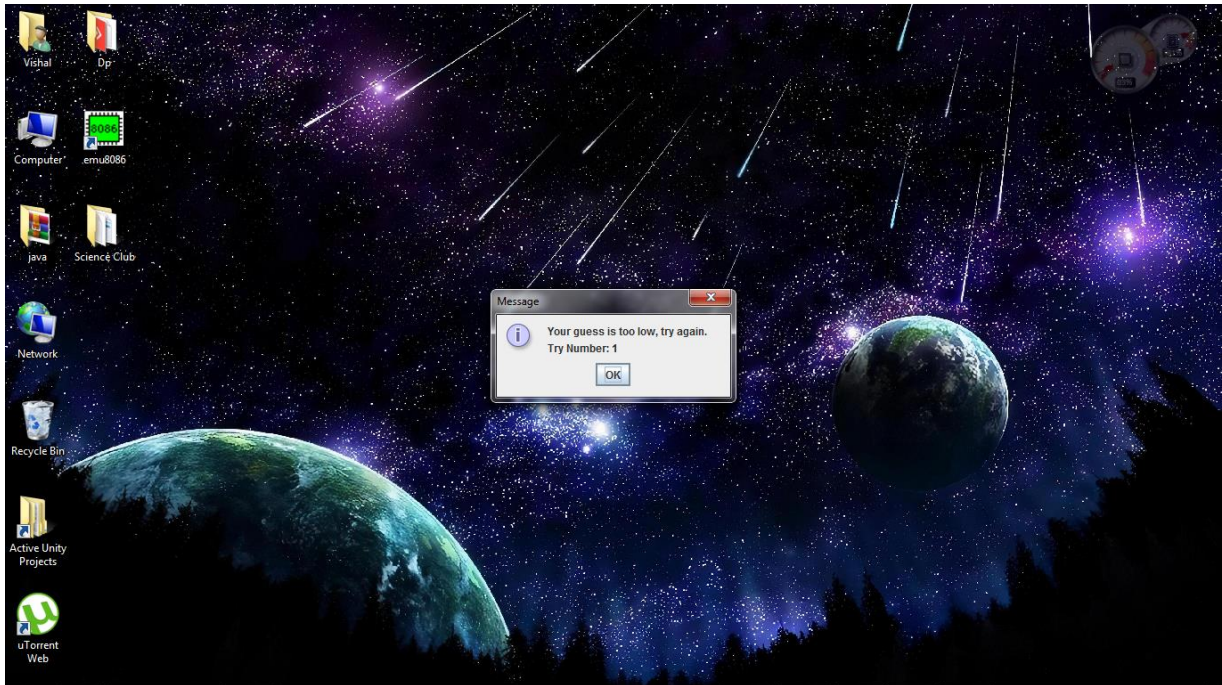
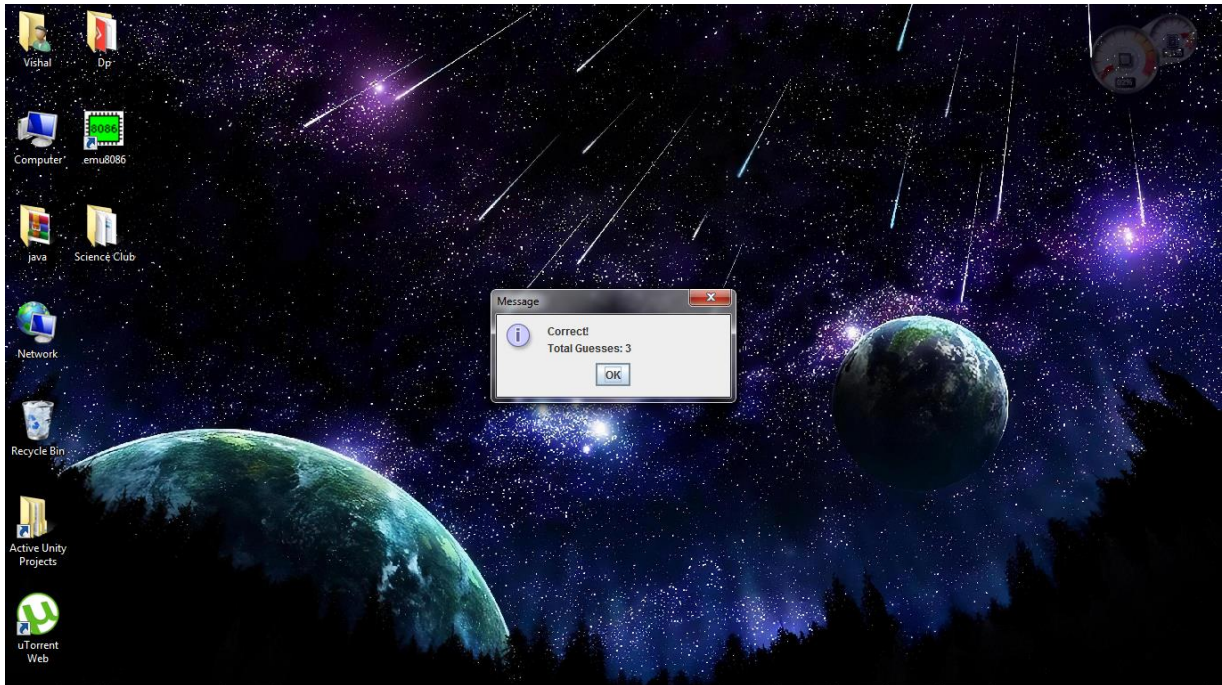


FIG 5.1 OUTPUT





B. SOURCE CODE

```
public static String determineGuess(int userAnswer, int computerNumber, int
count){
    if (userAnswer <=0 || userAnswer >100) {
        return "Your guess is invalid";
    }
    else if (userAnswer == computerNumber ){
        return "Correct!\nTotal Guesses: " + count;
    }
    else if (userAnswer > computerNumber) {
        return "Your guess is too high, try again.\nTry Number: " + count;
    }
    else if (userAnswer < computerNumber) {
        return "Your guess is too low, try again.\nTry Number: " + count;
    }
    else {
        return "Your guess is incorrect\nTry Number: " + count;
    }
}
```

```

package guessinggame;

/** www.codewithc.com
 * Java game "Guess a Number" that allows user to guess a random number that
 * has been generated.
 */

import javax.swing.*;

public class GuessingGame {
    public static void main(String[] args) {
        int computerNumber = (int) (Math.random()*100 + 1);
        int userAnswer = 0;
        System.out.println("The correct guess would be " + computerNumber);
        int count = 1;
        while (userAnswer != computerNumber)
        {
            String response = JOptionPane.showInputDialog(null,
                "Enter a guess between 1 and 100", "Guessing Game", 3);
            userAnswer = Integer.parseInt(response);
            JOptionPane.showMessageDialog(null, ""+ determineGuess(userAnswer,
computerNumber, count));
            count++;
        }
    }

    public static String determineGuess(int userAnswer, int computerNumber, int
count){
        if (userAnswer <=0 || userAnswer >100) {
            return "Your guess is invalid";
        }
        else if (userAnswer == computerNumber ){
            return "Correct!\nTotal Guesses: " + count;
        }
        else if (userAnswer > computerNumber) {

            return "Your guess is too high, try again.\nTry Number: " + count;
        }
        else if (userAnswer < computerNumber) {

```

```
        return "Your guess is too low, try again.\nTry Number: " + count;
    }
    else {
        return "Your guess is incorrect\nTry Number: " + count;
    }
}
}
```