GUESS IT OUT- Teaching Learning Aid

A Project Report

Submitted in partial fulfillment of the

Requirements for the award of the Degree of

BACHELOR OF SCIENCE (Computer Science)

By

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Seat Number: - 1

Under the esteemed guidance of

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DEPARTMENT OF COMPUTER SCIENCE

SHREE L.R. TIWARI DEGREE COLLEGE

(Affiliated to University of Mumbai)

THANE, 401107

MAHARASHTRA

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DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE

This is to certify that the project entitled, **"GUESS IT OUT- Teaching Learning Aid"**, is bonafide work of **DURGA ADHIKARI CHHETRI** bearing Seat. No: 1 submitted in partial fulfillment of the requirements for the award of degree of BACHELOR OF SCIENCE in COMPTER SCIENCE from University of Mumbai.

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Date: **College Seal**

ACKNOWLEDGEMENT

This project could not have been accomplished if not for the direct or indirect contribution from many known and unknown individuals. I wish to take this opportunity to express our sincere gratitude to all of them. I express our gratitude towards our internal guide **Asst.Prof. Rutika Malik** who gave us unending support from the stage the project was initiated. A source of inspiration, given by them constantly kept our spirits high, whenever I was dispirited.

The foundation that I have been able to develop today owes much credit to them. Always ready to cooperate, they have been very kind in guiding us how to go about developing the project. I would even like to thank all our friends for their cooperation and help in our project. Above all I would like to thank first, the almighty who have given me inspiration & courage to accept it as a course of life.

DECLARATION

I hereby declare that the project entitled, **"GUESS IT OUT- Teaching Learning Aid"** done at **Mira Road Thane**, not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university. The project is done in partial fulfillment of the requirements for the award of degree of **BACHELOR OF SCIENCE (COMPUTER SCIENCE)** to be submitted as final semester project as part of our curriculum.

DURGA ADHIKARI CHHETRI

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TITLE

Guess it Out- Teaching Learning Aid

This project is an interactive Python Game with a Graphical User Interface. The project contains the user side and database. To play the game user has to sign up first to create an account. It stores the user's given information on the database. After the account is created the player has to login by filling username and password. The player has to click on the start button then login its account by entering username and password. Player has to choose the field to play in. It has two fields to play: Math and English. The home page has two fields and let's Learn button. On clicking let's Learn button you will be directed to page that contains white board for writing and buttons to generate multiplication table, reset and exit. After selecting the desired field, the user can choose difficulty level accordingly. Each difficulty level has two submodules: Level1 and Level2. The design of this project is pretty simple so that the player won't find any difficulties while working on it. The game has music to make it more enjoyable. In this game, there is a list of questions present, out of which the interpreter will choose 1 random question with the help of a random module. The question will be displayed on the screen and player has to type its correct answer. Player can change the question if not able to guess the correct answer. If the player guesses the correct answer, then they'll earn points. If the player is unable to guess the answer, then they can use the earned points to reveal the answer but the points will be deducted. When correct answer is submitted a popup message is shown, saying "Correct Answer" otherwise it will display an error message. Players are able to see the overall high score. The high score is stored in text format. Game has logout button. If the player forgets the password, then they can change the password with the help of forgot password button.

INTRODUCTION

Quiz is popular among children who have been taught with the whole or sight word method and solve method. They are accustomed to looking at the beginning letters, numbers and shapes instead of paying attention to each phonogram in the word and solving math problems. It seems that most students have a big problem with speaking and solving skill. They have some difficulties in vocabulary and speaking English. They also have problem solving simple math problems The epidemic has caused huge ruckus as everything has gone virtual. Children struggle to focus on their online lectures and are quickly distracted. Their teachers are not able to teach them with an interesting method and the learning does not involve students' participation. As a result, students cannot practice and enhance their speaking and solving skill. Teachers should be able to cope with those problems and improve their teaching method. Guessing game has a Graphical User Interface where the player has to guess the right answer. It is a simple project for helping your kids grow in IQ. The question will be displayed on the screen and children's have to type its correct answer. They can choose the difficulty level. They can change the question if they are not able to guess the correct answer. They also have learning area to learn multiplication table and write notes. This game will help them to learn a lot of new vocabularies, solve math problems and also, they'll have fun. The game has music to make it enjoyable. Using games in the teaching and learning process is very influential to build students' spirit and participation. Games also can build students' confidence and students' courage to speak. Games are one of the activities that can be utilized by teachers to teach.

OBJECTIVES

- To make the virtual sessions interactive.
- To help children learn new vocabularies.
- To improve children solving ability.
- To make classroom games as a teaching strategy.
- To help children improve their IQ.
- To help teachers make learning fun and useful.

REQUIREMENT SPECIFICATION

Hardware requirement

1. **System:** WINDOWS
2. **Memory:** Minimum 1GB RAM
3. **Internal Storage:** Minimum 1GB

Software Requirement

1. **Tool**: Pycharm IDE
2. **Language**: Python
3. **GUI**: TKinter
4. **Module**: Random, time, sqlite3, Pygame

User Requirement

1. **Application:** Desktop
2. **OS:** Windows

SYSTEM DESIGN DETAILS

UML DIAGRAM

- UML stands for Unified Modelling Language.
- UML is not a programming language but tools can be used to generate code in various languages using
- UML diagrams. UML has a direct relation with object-oriented analysis and design.
- We prepare UML diagrams to understand the system in a better and simple way.
- A single diagram is not enough to cover all the aspects of the system. UML defines various kinds of diagrams to cover most of the aspects of a system.
- You can also create your own set of diagrams to meet your requirements. Diagrams are generally made in an incremental and iterative way.

There are two broad categories of diagrams and they are again divided into subcategories

1. Structural Diagrams
    a. Class Diagram

2. Behavioural Diagrams
    a. Use case diagram
    b. Activity Diagram

Use Case Diagram

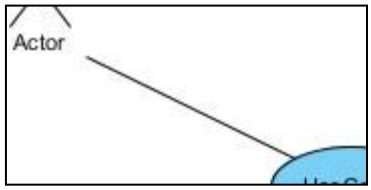
- In the Unified Modelling Language (UML), a use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system.
- To build one, you'll use a set of specialized symbols and connectors.
- An effective use case diagram can help your team discuss and represent:
  - Scenarios in which your system or application interacts with people, organizations, or external systems.
  - Goals that your system or application helps those entities (known as actors) achieve.
  - The scope of your system

Use Case Diagram notations

1. Use Case

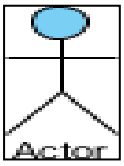
A use case represents a user goal that can be achieved by accessing the system or software application. In Visual Paradigm, you can make use of the sub-diagram feature to describe the interaction between user and system within a use case by creating a sub-sequence diagram under a use case. You can also describe the use case scenario using the Flow of Events editor.

2. Association



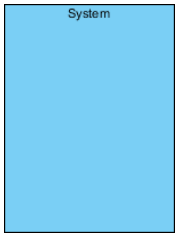
Actor and use case can be associated to indicate that the actor participates in that use case. Therefore, an association correspond to a sequence of actions between the actors and use case in achieving the use case.

3. Actor



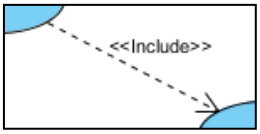
Actors are the entities that interact with a system. Although in most cases, actors are used to represent the users of system, actors can actually be anything that needs to exchange information with the system. So, an actor may be people, computer hardware, other systems, etc.
Note that actor represents a role that a user can play but not a specific user.

4. System



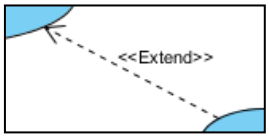
The scope of a system can be represented by a system (shape), or sometimes known as a system boundary. The use cases of the system are placed inside the system shape, while the actor who interact with the system are put outside the system. The use cases in the system make up the total requirements of the system.

5. Include



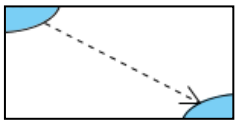
An include relationship specifies how the behaviour for the inclusion use case is inserted into the behaviour defined for the base use case.

6. Extend



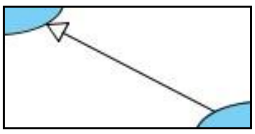
An extend relationship specifies how the behaviour of the extension use case can be inserted into the behaviour defined for the base use case.

7. Dependency



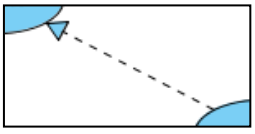
A dependency relationship represents that a model element relies on another model element for specification and/or implementation.

8. Generalization



A generalization relationship is used to represent inheritance relationship between model elements of same type. The more specific model element shares the same specification with. the more general the model element but carries more details in extra.

9. Realization



A realization is a relationship between a specification and its implementation.

10. Collaboration

A collaboration describes a structure of collaborating elements (roles), each performing a specialized function, which collectively accomplish some desired functionality.

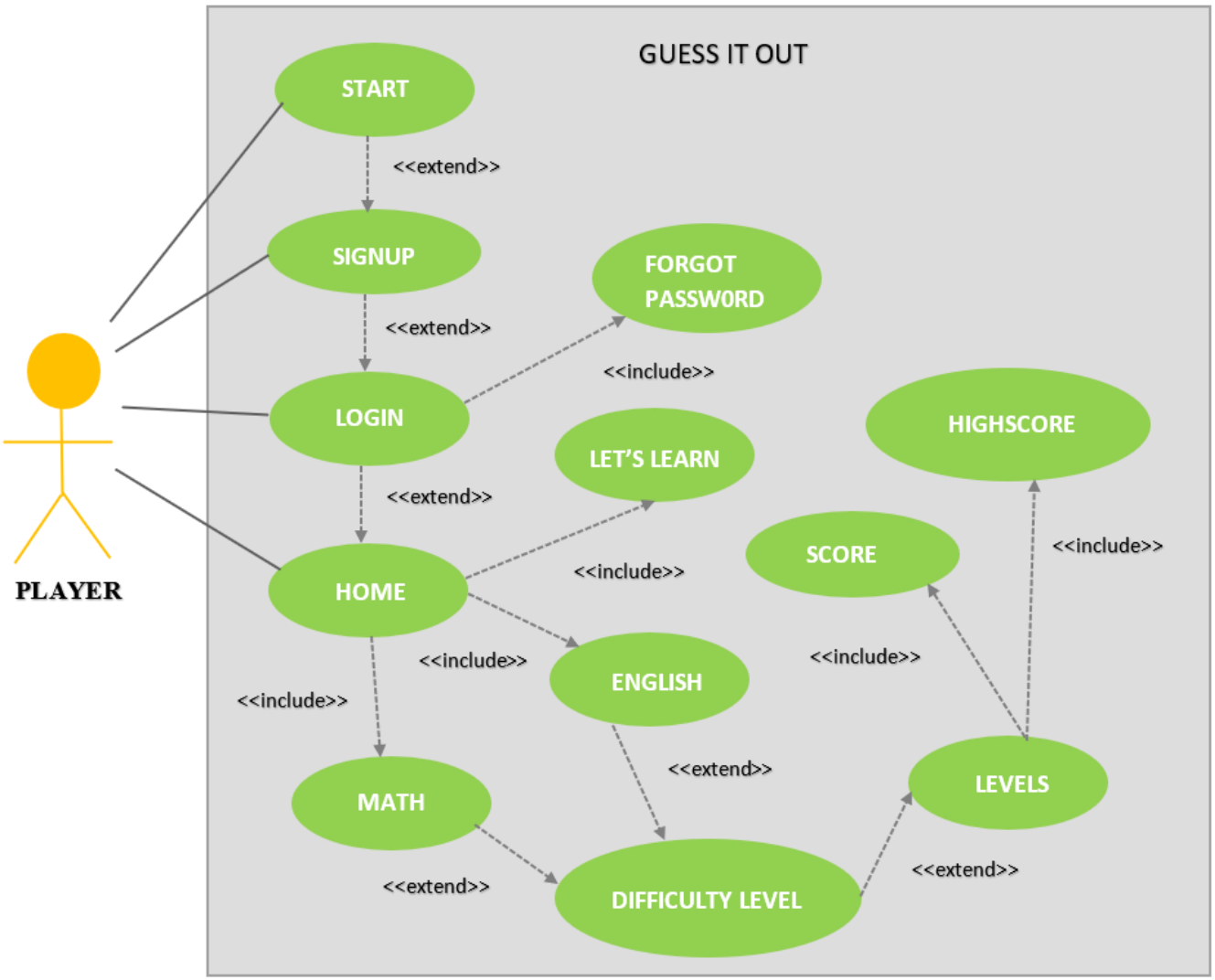


Fig. 1 Use case Diagram

DATA FLOW DIAGRAM

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled.

SYMBOL AND NOTATION USED IN DFD

Two common systems of symbols are named after their creators:

- Yourdon and Coad
- Yourdon and DeMarco
- Gane and Sarson

Using any convention's DFD rules or guidelines, the symbols depict the four components of data flow diagrams.

1. **External entity:** an outside system that sends or receives data, communicating with the system being diagrammed. They are the sources and destinations of information entering or leaving the system. They might be an outside organization or person, a computer system or a business system. They are also known as terminators, sources and sinks or actors. They are typically drawn on the edges of the diagram.

2. **Process:** any process that changes the data, producing an output. It might perform computations, or sort data based on logic, or direct the data flow based on business rules. A short label is used to describe the process, such as "Submit payment."

3. **Data store:** files or repositories that hold information for later use, such as a database table or a membership form. Each data store receives a simple label, such as "Orders."

4. **Data flow:** the route that data takes between the external entities, processes and data stores. It portrays the interface between the other components and is shown with arrows, typically labeled with a short data name, like “Billing details.”

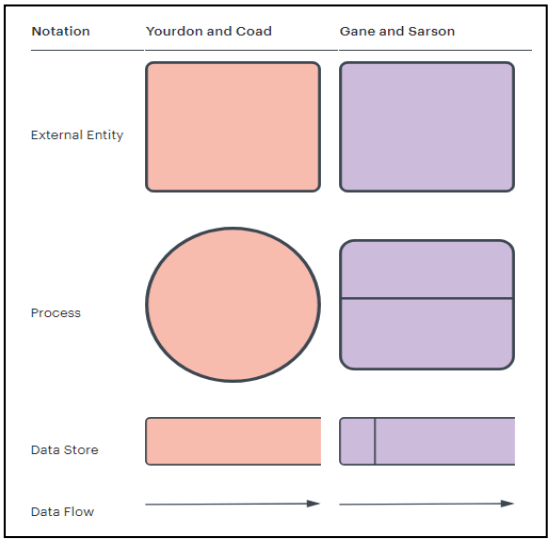


Fig. 2 Notation

DFD LEVEL 0

DFD Level 0 is also called a Context Diagram. It’s a basic overview of the whole system or process being analyzed or modeled.

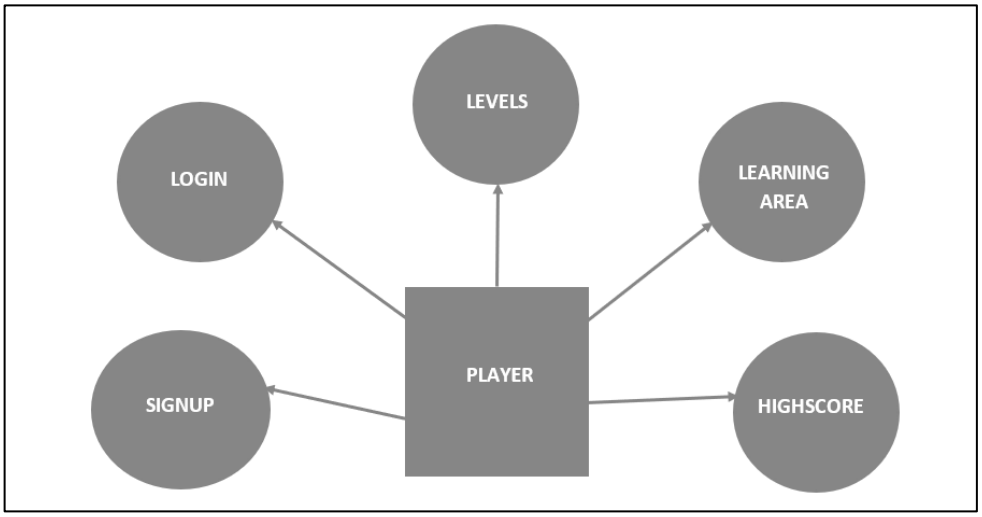


Fig. 3.1

DFD LEVEL 1

DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. You will highlight the main functions carried out by the system, as you break down the high-level process of the Context Diagram into its subprocesses.

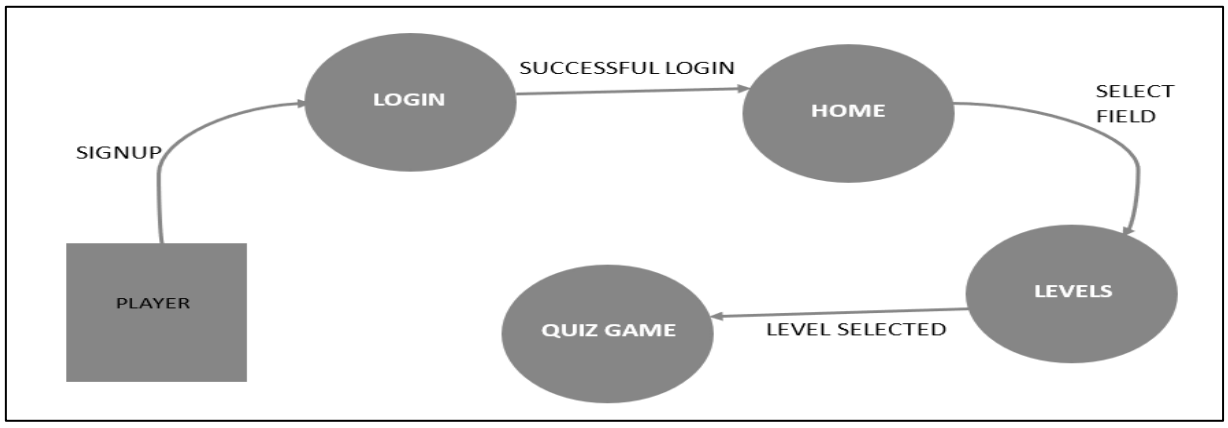


Fig. 3.2

DFD LEVEL 2

DFD Level 2 then goes one step deeper into parts of Level 1. It may require more text to reach the necessary level of detail about the system's functioning.

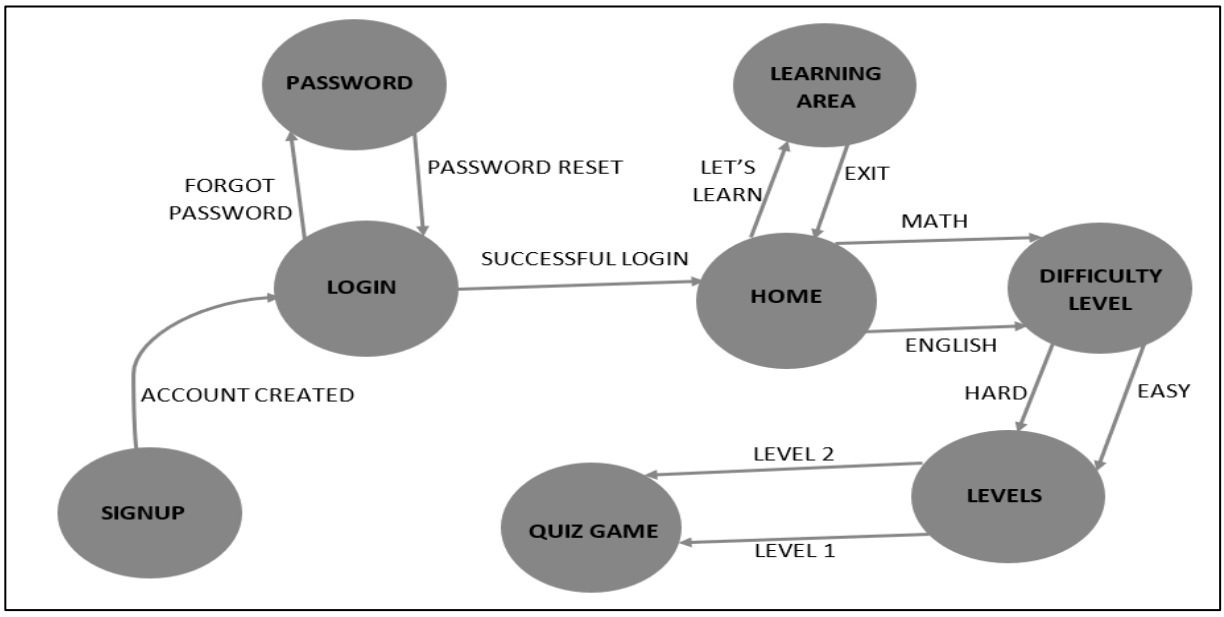


Fig. 3.3

DFD LEVEL 3

Progression to Levels 3, 4 and beyond is possible, but going beyond Level 3 is uncommon. Doing so can create complexity that makes it difficult to communicate, compare or model effectively.

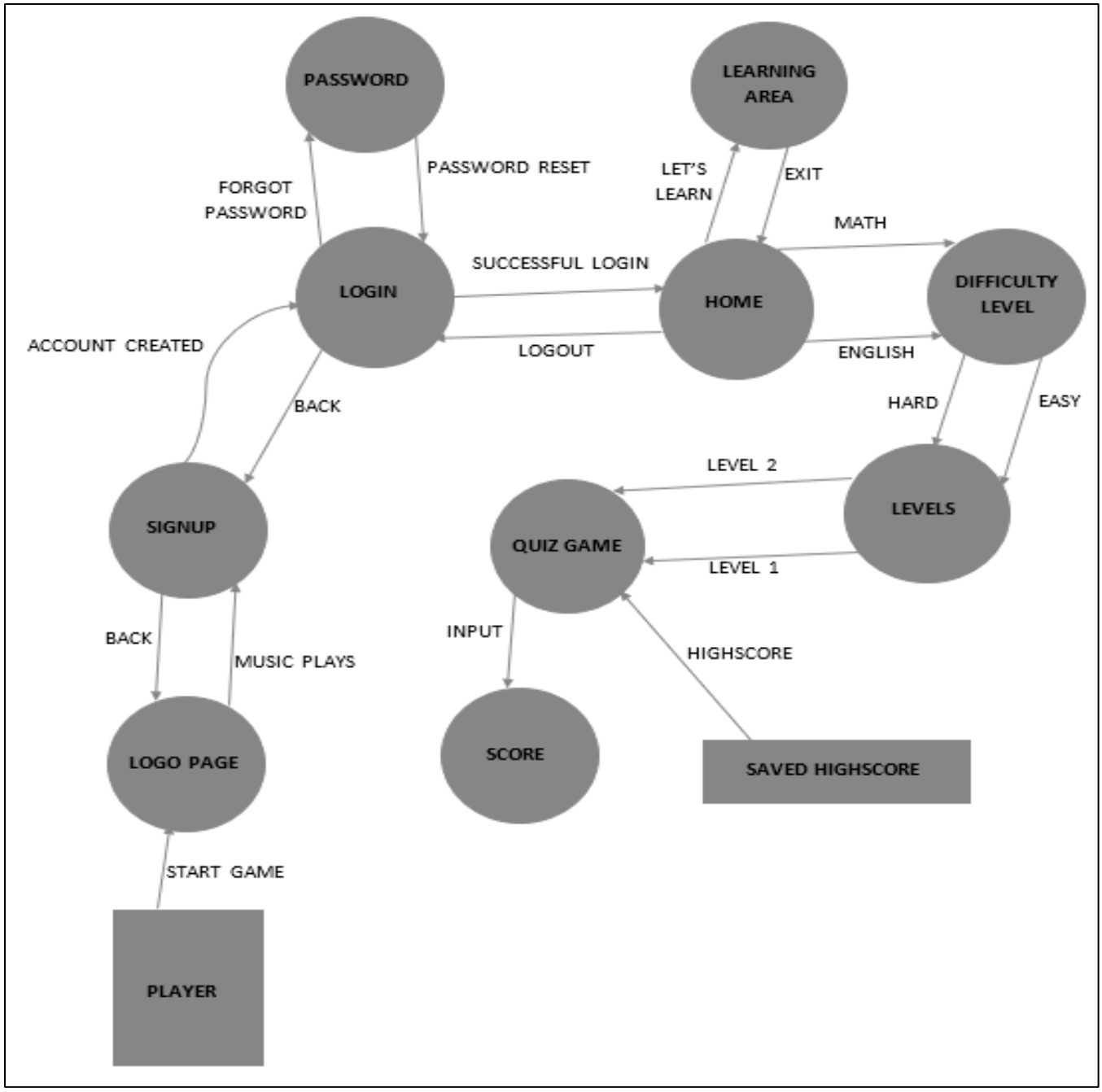


Fig.3.4

SYSTEM IMPLEMENTATION

CODE: main.py

```
from tkinter import *
import sqlite3
from tkinter import messagebox
import pygame

#Initialization
pygame.mixer.init()
pygame.init()

# Music
pygame.mixer.music.load('music/fun.mpeg')
pygame.mixer.music.play(100)
pygame.mixer.music.set_volume(.4)

# login page
def gotologin():
    conn = sqlite3.connect('quiz.db')
    create = conn.cursor()
    conn.commit()
    create.execute('SELECT * FROM userSignUp')
    z = create.fetchall()
    loginpage(z)

def logpg():
    sup.destroy()
    gotologin()

def loginpage(logdata):
    global login
    login = Tk()
    login.geometry("650x650+450+10")
    login.resizable(False, False)
    login.title("Guess It Out-teaching learning aid")
    login.configure(background="#ff99cc")
    login.iconbitmap(r'logo_.ico')
    login_canvas = Canvas(login, width=650, height=550, bg='#ff99cc', bd=0, highlightthickness=0)
    login_canvas.pack(expand=YES, fill=BOTH)

    # login image
```

```
    img = PhotoImage(file="login.png")
    lab_img = Label(login_canvas, image=img, bg='#ff99cc')
    lab_img.place(relx=0.3, rely=0.2)
    heading = Label(login_canvas, text="LOGIN", fg="black", bg="#ff99cc", font=("Comic Sans MS", 25,
'bold'))
    heading.place(relx=0.52, rely=0.28)

    # validation for login page
    user_name = StringVar()
    password = StringVar()
    f_name = StringVar()
    new_passw = StringVar()

    # username
    ulabel = Label(login_canvas, text="Username", fg='black', bg='#ff99cc', font=("Comic Sans MS", 12,
'bold'))
    ulabel.place(relx=0.16, rely=0.5)
    user = Entry(login_canvas, bg='#d3d3d3', fg='black', textvariable=user_name, width=30,
                 font=("Comic Sans MS", 12, 'bold'))
    user.place(relx=0.31, rely=0.5, height=30)

    # password
    plabel = Label(login_canvas, text="Password", fg='black', bg='#ff99cc', font=("Comic Sans MS", 12,
'bold'))
    plabel.place(relx=0.16, rely=0.6)
    pas = Entry(login_canvas, bg='#d3d3d3', fg='black', textvariable=password, width=30, show='*',
                font=("Comic Sans MS", 12, 'bold'))
    pas.place(relx=0.31, rely=0.6, height=30)

    # logic for validation check
    def check():
        check_counter = 0
        if user_name.get() == "" and pas.get() == "":
            messagebox.showinfo('Login Status', 'please fill credentials')

        else:
            if user_name.get() == "":
                messagebox.showerror('Login Status', "Username can't be empty")

            else:
                check_counter += 1

            if pas.get() == "":
                messagebox.showerror('Login Status', "Password can't be empty")
```

```
        else:
            check_counter += 1

        if check_counter == 2:
            for a, b, c in logdata:
                if b == user.get() and c == pas.get():
                    messagebox.showinfo('Login Status', 'Logged in Successfully!')
                    oppt()
                    break
            else:
                messagebox.showerror('Login Status', 'invalid username or password')
                user.delete(0, END)
                pas.delete(0, END)

# forget password
def forget_password():
    check_counter = 0
    if (f_name.get() == "") and (new_passw.get() == ""):
        messagebox.showerror('Error', "please fill the credentials", parent=top)
    else:
        if f_name.get() == "":
            messagebox.showerror('Error', "Full Name can't be empty", parent=top)
        else:
            check_counter += 1

        if new_passw.get() == "":
            messagebox.showerror('Error', "password can't be empty", parent=top)
        else:
            check_counter += 1

        if check_counter == 2:
            conn = sqlite3.connect('quiz.db')
            create = conn.cursor()
            # Find Existing username if any take proper action
            find_user = 'SELECT * FROM userSignUp WHERE USERNAME = ? and NAME = ?'
            create.execute(find_user, [(user.get()), (f_name.get())])
            row = create.fetchone()
            if row is None:
                messagebox.showinfo('Error', 'Please enter correct name', parent=top)
            else:
                find_user = 'UPDATE userSignUp set PASSWORD=? WHERE USERNAME = ?'
                create.execute(find_user, [(new_passw.get()), (user.get())])
                conn.commit()
                conn.close()
                messagebox.showinfo("Success", "Your password has been reset, Please login with new
```

```
password", parent=top)
                top.destroy()
                login.destroy()
                gotologin()

    def forget_password_window():
        if user_name.get() == "":
            messagebox.showinfo('Error', 'Please enter username to reset password')
        else:
            try:
                conn = sqlite3.connect('quiz.db')
                create = conn.cursor()
                # Find Existing username if any take proper action
                find_user = 'SELECT USERNAME FROM userSignUp WHERE USERNAME = ?'
                create.execute(find_user, [(user.get())])
                row = create.fetchone()
                if row is None:
                    messagebox.showinfo('Error', 'Please enter valid username to reset password')
                else:
                    conn.close()
                    global top
                    top = Toplevel(login)
                    top.geometry("350x350+450+10")
                    top.resizable(False, False)
                    top.configure(background="#ff99cc")
                    top.iconbitmap(r'logo_.ico')
                    top.focus_force()
                    top.grab_set()
                    top_canvas = Canvas(top, width=650, height=550, bg='#ff99cc', bd=0, highlightthickness=0)
                    top_canvas.pack(expand=YES, fill=BOTH)
                    head = Label(top_canvas, text="FORGET PASSWORD", fg="black", bg="#ff99cc",
                                 font=("Comic Sans MS", 15, 'bold'))
                    head.place(relx=0.2, rely=0.03)

                    flabel = Label(top_canvas, text="Name", fg='black', bg='#ff99cc',
                      font=("Comic Sans MS", 11, 'bold'))
                    flabel.place(relx=0.03, rely=0.25)
                    fname = Entry(top_canvas, bg='#d3d3d3', fg='black', width=20, textvariable=f_name,
                                  font=("Comic Sans MS", 12, 'bold'))
                    fname.place(relx=0.36, rely=0.25, height=25)

                    new_password = Label(top_canvas, text="New Password", fg='black', bg='#ff99cc',
                                         font=("Comic Sans MS", 11, 'bold'))
                    new_password.place(relx=0.04, rely=0.45)
                    new_pass = Entry(top_canvas, bg='#d3d3d3', fg='black', width=20, textvariable=new_passw,
```

```
                    font=("Comic Sans MS", 12, 'bold'))
                new_pass.place(relx=0.36, rely=0.45, height=25)

                btn_change_password = Button(top_canvas, text='Reset Password',
command=forget_password, borderwidth=2, fg="#000000", bg="#33ccff", cursor="hand2", font=("Comic
Sans MS", 14, 'bold'), activebackground="#33B5E5")
                btn_change_password.place(relx=0.3, rely=0.65)

            except EXCEPTION as es:
                messagebox.showerror("Error", es)

    # LOGIN BUTTON
    log = Button(login_canvas, text='LOGIN', command=check, width=8, borderwidth=2, fg="#000000",
bg="#33ccff", font=("Comic Sans MS", 14, 'bold'), cursor="hand2", activebackground="#33B5E5")
    log.place(relx=0.42, rely=0.75)

    forg_btn = Button(login_canvas, text='forgot password?', font=("Comic Sans MS", 12, 'bold'),
     command=forget_password_window, bg="#ff99cc", activebackground="#ff99cc", fg="blue", border=0)
    forg_btn.place(relx=0.4, rely=0.85)

    # back button for login page
    def logback():
        login.destroy()
        sign()

    img1 = PhotoImage(file="back.png")
    lab_img1 = Button(login_canvas, image=img1, bg="#ff99cc", border=0, justify='center',
activebackground="#ff99cc", command=lambda: logback())
    lab_img1.pack(anchor='nw', pady=10, padx=10)

    login.mainloop()

# signup page
def signuppage():
    root.destroy()
    sign()

def sign():
    global sup
    sup = Tk()
    sup.geometry("650x650+450+10")
    sup.resizable(False, False)
    sup.title("Guess It Out-teaching learning aid")
    sup.configure(background="#ff99cc")
    sup.iconbitmap(r'logo_.ico')
```

```
    sup_canvas = Canvas(sup, width=650, height=550, bg='#ff99cc', bd=0, highlightthickness=0)
    sup_canvas.pack(expand=YES, fill=BOTH)
    img = PhotoImage(file="signup.png")
    lab_img = Label(sup_canvas, image=img, bg='#ff99cc')
    lab_img.place(relx=0.4, rely=0.15)

    # validation for signup page
    fname = StringVar()
    uname = StringVar()
    passW = StringVar()

    # full name
    flabel = Label(sup_canvas, text="Name", fg='black', bg='#ff99cc', font=("Comic Sans MS", 12, 'bold'))
    flabel.place(relx=0.16, rely=0.4)
    fname = Entry(sup_canvas, bg='#d3d3d3', fg='black', textvariable=fname, width=30,
                  font=("Comic Sans MS", 12, 'bold'))
    fname.place(relx=0.31, rely=0.4, height=30)

    # username
    ulabel = Label(sup_canvas, text="Username", fg='black', bg='#ff99cc', font=("Comic Sans MS", 12,
'bold'))
    ulabel.place(relx=0.16, rely=0.5)
    user = Entry(sup_canvas, bg='#d3d3d3', fg='black', textvariable=uname, width=30, font=("Comic Sans
MS", 12, 'bold'))
    user.place(relx=0.31, rely=0.5, height=30)

    # password
    plabel = Label(sup_canvas, text="Password", fg='black', bg='#ff99cc', font=("Comic Sans MS", 12,
'bold'))
    plabel.place(relx=0.16, rely=0.6)
    pas = Entry(sup_canvas, bg='#d3d3d3', fg='black', textvariable=passW, width=30, show='*',
                font=("Comic Sans MS", 12, 'bold'))
    pas.place(relx=0.31, rely=0.6, height=30)

    def addUserToDataBase():
        name = fname.get()
        username = user.get()
        password = pas.get()

        conn = sqlite3.connect('quiz.db')
        create = conn.cursor()
        create.execute('CREATE TABLE IF NOT EXISTS userSignUp(NAME text, USERNAME text NOT
NULL PRIMARY KEY,'
                       'PASSWORD text)')
        create.execute("INSERT INTO userSignUp VALUES (?,?,?)", (name, username, password))
```

```
        conn.commit()
        create.execute('SELECT * FROM userSignUp')
        z = create.fetchall()
        print(z)
        conn.close()
        logpg()

    # validation check for signup
    def insert_record():
        check_counter = 0
        if (fname.get() == "") and (user.get() == "") and (pas.get() == ""):
            messagebox.showerror('Error', "please fill the credentials")

        else:
            if (fname.get()).isalpha():
                check_counter += 1

            else:
                messagebox.showerror('Error', "Name field can't be empty and it should not contain numbers,
symbol, spaces,")

            if user.get() == "":
                messagebox.showerror('Error', "username can't be empty")

            else:
                check_counter += 1

            if pas.get() == "":
                messagebox.showerror('Error', "password can't be empty")
            else:
                check_counter += 1

            if check_counter == 3:
                conn = sqlite3.connect('quiz.db')
                create = conn.cursor()
                create.execute('CREATE TABLE IF NOT EXISTS userSignUp(NAME text,'
                               ' USERNAME text NOT NULL PRIMARY KEY, PASSWORD text)')

                conn.commit()
                # Find Existing username if any take proper action
                find_user = 'SELECT USERNAME FROM userSignUp WHERE USERNAME = ?'
                create.execute(find_user, [(user.get())])
                if create.fetchall():
                    messagebox.showerror('Error!', 'This Username already exist, Create another one.')
                else:
```

```
            # Create New Account
            messagebox.showinfo('Success!', 'Account Created!')
            addUserToDataBase()

    # signup BUTTON
    sp = Button(sup_canvas, text='SignUp', command=insert_record, width=8, borderwidth=2,
fg="#000000", bg="#33ccff", font=("Comic Sans MS", 14, 'bold'), cursor="hand2",
activebackground="#33B5E5")
    sp.place(relx=0.42, rely=0.8)

    log = Button(sup_canvas, text='Already have a Account?', font=("Comic Sans MS", 12, 'bold'),
            command=logpg, bg="#ff99cc", activebackground="#ff99cc", fg="blue", border=0)
    log.place(relx=0.34, rely=0.9)

    # back button for singup page
    def back():
        sup.destroy()
        start()

    img1 = PhotoImage(file="back.png")
    lab_img1 = Button(sup_canvas, image=img1, bg="#ff99cc", border=0, justify='center',
activebackground="#ff99cc", command=lambda: back())
    lab_img1.pack(anchor='nw', pady=10, padx=10)

    sup.mainloop()

# option page
def oppt():
    login.destroy()
    option()

def option():
    global opt
    opt = Tk()
    opt.geometry("650x650+450+10")
    opt.resizable(False, False)
    opt.title("Guess It Out-teaching learning aid")
    opt.configure(background="#ff99cc")
    opt.iconbitmap(r'logo_.ico')
    opt_canvas = Canvas(opt, width=650, height=550, bg='#ff99cc', bd=0, highlightthickness=0)
    opt_canvas.pack(expand=YES, fill=BOTH)
    img1 = PhotoImage(file="logout.png")
    lab_img1 = Button(opt_canvas, image=img1, bg="#ff99cc", border=0, justify='center',
activebackground="#ff99cc", command=lambda: logout())
    lab_img1.pack(anchor='nw', pady=15, padx=15)
```

```
    sel_btn1 = Button(opt_canvas, text="MATH", width=14, borderwidth=8, font=("Comic Sans MS", 18),
fg="#000000", bg="#94C11F", cursor="hand2", command=mathstart)
    sel_btn1.pack(pady=(110, 0))

    img = PhotoImage(file="student.png")
    lab_img = Label(opt_canvas, image=img, bg='#ff99cc')
    lab_img.pack(pady=(30, 0))

    img2 = PhotoImage(file="math.png")
    lab_img = Label(opt_canvas, image=img2, bg='#ff99cc')
    lab_img.place(relx=0.63, rely=0.08)

    img3 = PhotoImage(file="girl.png")
    lab_img = Label(opt_canvas, image=img3, bg='#ff99cc')
    lab_img.place(relx=0.75, rely=0.2)

    img4 = PhotoImage(file="eng.png")
    lab_img = Label(opt_canvas, image=img4, bg='#ff99cc')
    lab_img.place(relx=0.14, rely=0.533)

    img5 = PhotoImage(file="boy.png")
    lab_img = Label(opt_canvas, image=img5, bg='#ff99cc')
    lab_img.place(relx=0.03, rely=0.69)

    sel_btn2 = Button(opt_canvas, text="ENGLISH", width=14, borderwidth=8, font=("Comic Sans MS",
18), fg="#000000", bg="#94C11F", cursor="hand2", command=engstart)
    sel_btn2.pack(pady=(30, 5))

    sel_btn3 = Button(opt_canvas, text="Let's Learn!!", bg="#ff99cc", border=0,
activebackground="#ff99cc", command=lambda: whiteboard(), cursor="hand2", font=("Comic Sans MS",
18))
    sel_btn3.place(relx=0.75, rely=0.9)

    def whiteboard():
        opt.destroy()
        from learn import board
        board()

 def logout():
        messagebox.showinfo('Success', 'Logged Out Successfully')
        opt.destroy()
        gotologin()

    opt.mainloop()
```

```
def engstart():
    opt.destroy()
    eng()

def eng():
    global eg
    eg = Tk()
    eg.geometry("650x650+450+10")
    eg.resizable(False, False)
    eg.title("Guess It Out-teaching learning aid")
    eg.configure(background="#ff99cc")
    eg.iconbitmap(r'logo_.ico')
    eg_canvas = Canvas(eg, width=650, height=550, bg="#ff99cc", bd=0, highlightthickness=0)
    eg_canvas.pack(expand=YES, fill=BOTH)
    img = PhotoImage(file="back.png")
    lab_img1 = Button(eg_canvas, image=img, bg="#ff99cc", border=0, justify='center',
activebackground="#ff99cc", command=lambda: engback())
    lab_img1.pack(anchor='nw', pady=15, padx=15)

    level = Label(eg_canvas, text='Select your Difficulty Level !!', bg="#ff99cc", font=("Comic Sans MS",
27, 'bold'))
    level.place(relx=0.09, rely=0.2)

    var = IntVar()
    easyR = Radiobutton(eg_canvas, text='Easy', bg="#ff99cc", font=("Comic Sans MS", 20), value=1,
variable=var,  activebackground='#ff99cc')
    easyR.place(relx=0.25, rely=0.4)

    hardR = Radiobutton(eg_canvas, text='Hard', bg="#ff99cc", font=("Comic Sans MS", 20), value=2,
variable=var, activebackground='#ff99cc')
    hardR.place(relx=0.25, rely=0.56)

    def navigate():
        x = var.get()
        if x == 1:
            eg.destroy()
            import english
            english.elvl()
        elif x == 2:
            eg.destroy()
            import english
            english.hlvl()
        else:
            pass
```

```
    def engback():
        eg.destroy()
        option()

    nxt = Button(eg_canvas, text='NEXT', command=navigate, width=8, borderwidth=2, fg="#000000",
bg="#33ccff", font=("Comic Sans MS", 14, 'bold'), cursor="hand2", activebackground="#33B5E5")
    nxt.place(relx=0.25, rely=0.76)

    eg.mainloop()

def mathstart():
    opt.destroy()
    maths()

def maths():
    global mat
    mat = Tk()
    mat.geometry("650x650+450+10")
    mat.resizable(False, False)
    mat.title("Guess It Out-teaching learning aid")
    mat.configure(background="#ff99cc")
    mat.iconbitmap(r'logo_.ico')
    mat_canvas = Canvas(mat, width=650, height=550, bg="#ff99cc", bd=0, highlightthickness=0)
    mat_canvas.pack(expand=YES, fill=BOTH)
    img = PhotoImage(file="back.png")
    lab_img1 = Button(mat_canvas, image=img, bg="#ff99cc", border=0, justify='center',
activebackground="#ff99cc", command=lambda: mathback())
    lab_img1.pack(anchor='nw', pady=15, padx=15)

    level = Label(mat_canvas, text='Select your Difficulty Level !!', bg="#ff99cc", font=("Comic Sans MS",
27, 'bold'))
    level.place(relx=0.09, rely=0.2)

    var = IntVar()
    easyR = Radiobutton(mat_canvas, text='Easy', bg="#ff99cc", font=("Comic Sans MS", 20), value=1,
variable=var, activebackground='#ff99cc')
    easyR.place(relx=0.25, rely=0.4)

    hardR = Radiobutton(mat_canvas, text='Hard', bg="#ff99cc", font=("Comic Sans MS", 20), value=2,
variable=var, activebackground='#ff99cc')
    hardR.place(relx=0.25, rely=0.56)

    def navigate():
        x = var.get()
```

```
        if x == 1:
            mat.destroy()
            import matth
            matth.elvl()
        elif x == 2:
            mat.destroy()
            import matth
            matth.hlvl()
        else:
            pass

    def mathback():
        mat.destroy()
        option()

 nxt = Button(mat_canvas, text='NEXT', command=navigate, width=8, borderwidth=2, fg="#000000",
bg="#33ccff", font=("Comic Sans MS", 14, 'bold'), cursor="hand2", activebackground="#33B5E5")
    nxt.place(relx=0.25, rely=0.76)

    mat.mainloop()

def start():
    global root
    root = Tk()
    root.geometry("650x650+450+10")
    root.resizable(False, False)
    root.title("Guess It Out-teaching learning aid")
    root.configure(background="#ff99cc")
    root.iconbitmap(r'logo_.ico')
    canvas = Canvas(root, width=650, height=550, bg='#ff99cc', bd=0, highlightthickness=0)
    canvas.pack(expand=YES, fill=BOTH)
    img = PhotoImage(file="logo.png")
    lab_img = Label(canvas, image=img, bg='#e6fff5')
    lab_img.pack(pady=(50, 0))

    button = Button(canvas, text='Start', command=signuppage, width=18, borderwidth=8, fg="#000000",
bg="#33ccff", font=("Comic Sans MS", 18, 'bold'), cursor="hand2", activebackground="#33B5E5")
    button.pack(pady=(50, 20))

    root.mainloop()

if __name__ == '__main__':
    start()
```

RESULTS

The random word is displayed on the screen in jumbled form and the user has to guess the correct word. The user will be able to learn new words with spelling. If the user is able to make a correct word guess, then the user is acknowledged with his success message else a failure message on the screen.

Fig. 4.1 Home page

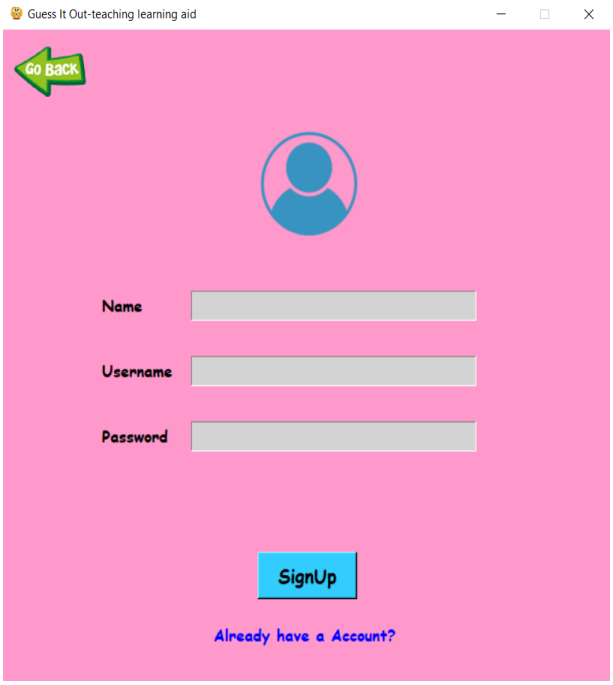

Guess It Out-teaching learning aid
Go Back
Name
Username
Password
SignUp
Already have a Account?

Fig. 4.2

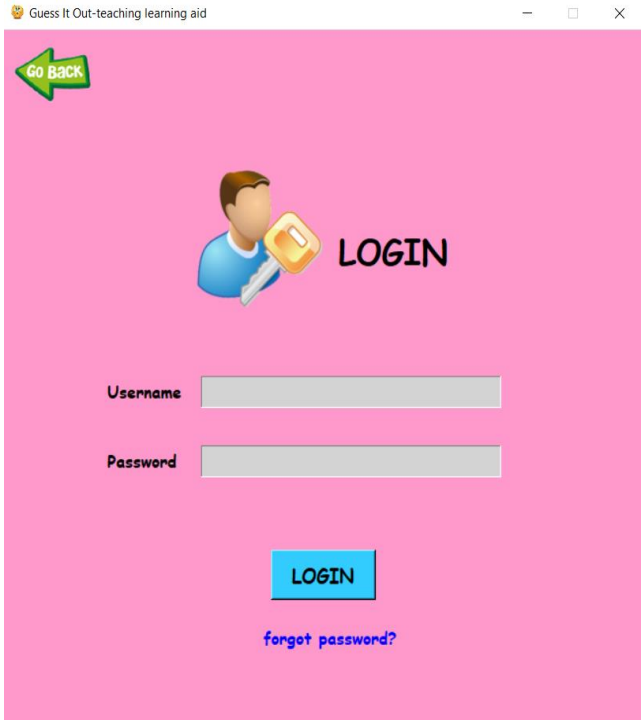

Guess It Out-teaching learning aid
Go Back
LOGIN
Username
Password
LOGIN
forgot password?

Fig. 4.3

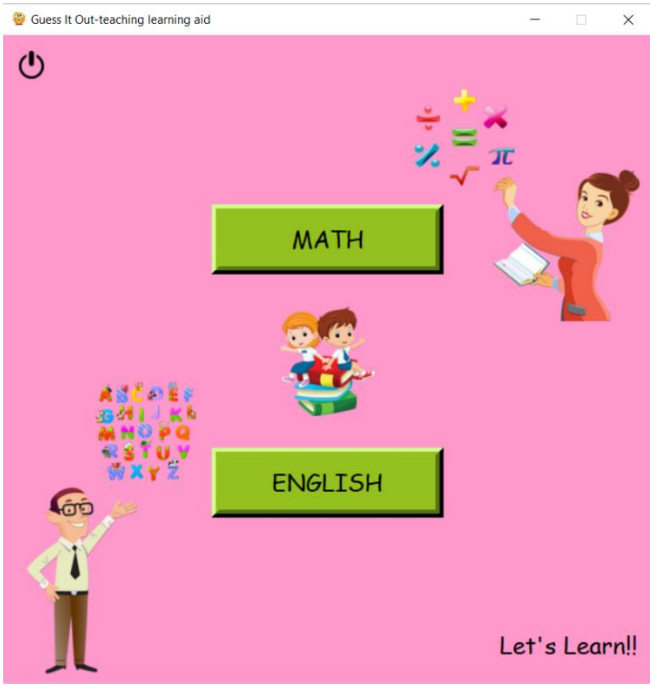

Guess It Out-teaching learning aid
MATH
ENGLISH
Let's Learn!!

Fig. 4.4

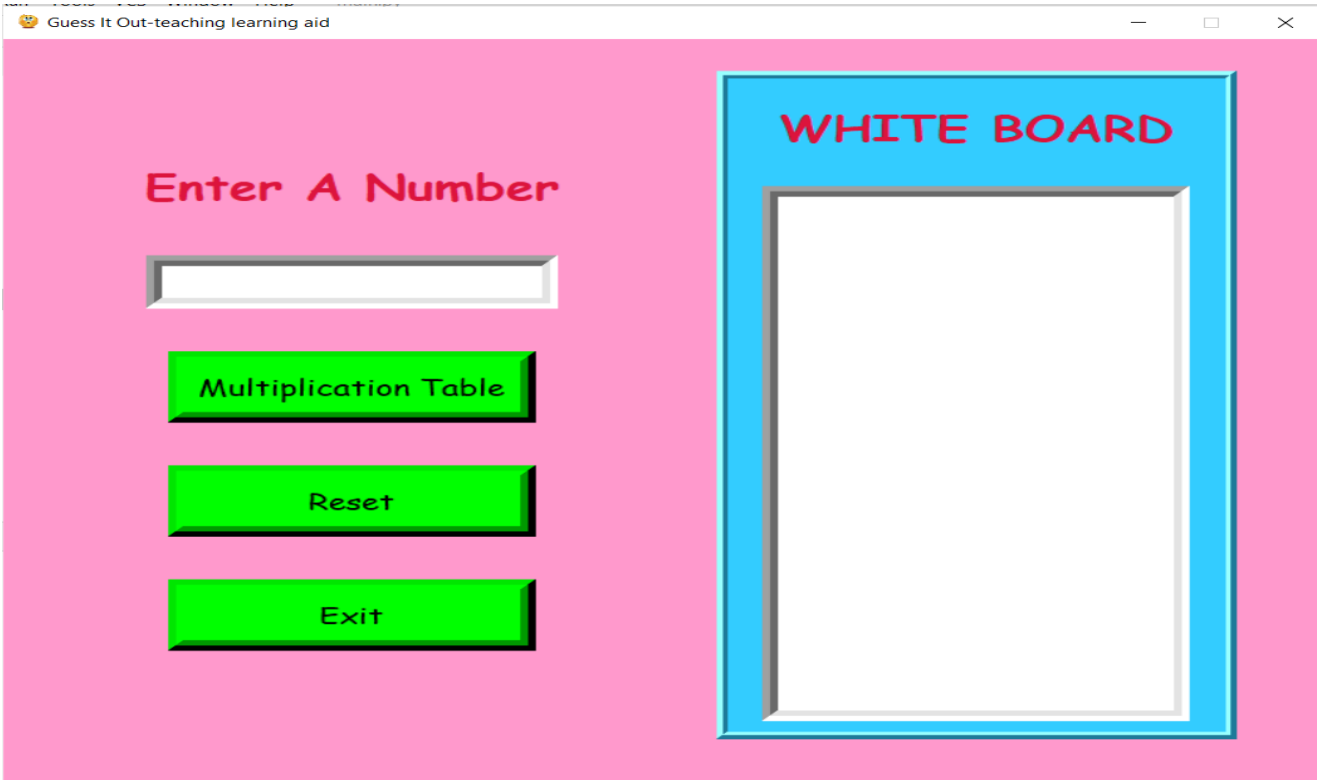

Guess It Out-teaching learning aid
Enter A Number
Multiplication Table
Reset
Exit
WHITE BOARD

Fig. 4.5

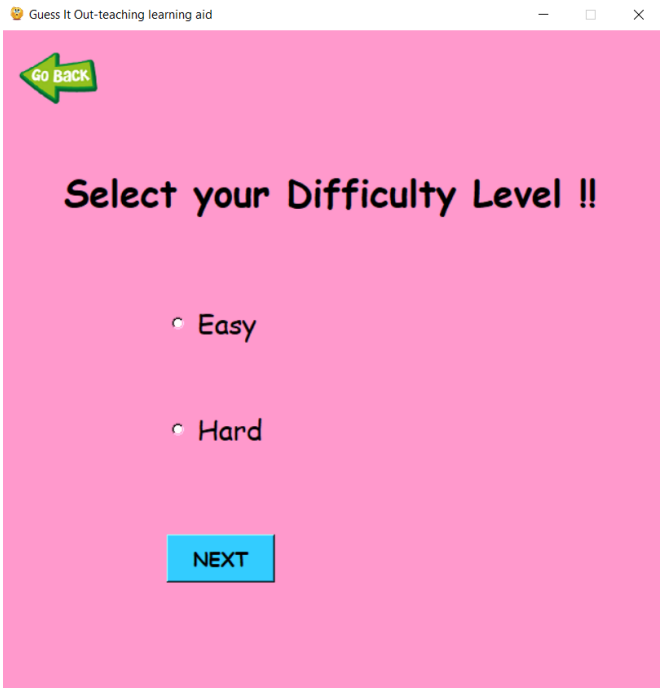

Guess It Out-teaching learning aid
Go Back
Select your Difficulty Level !!
Easy
Hard
NEXT

Fig. 4.6


Guess It Out-teaching learning aid
Go Back
level1
level2

Fig. 4.7


Guess It Out-teaching learning aid
Go Back
level1
level2
Error
Score at least 10 to Unlock level 2
OK

Fig. 4.8

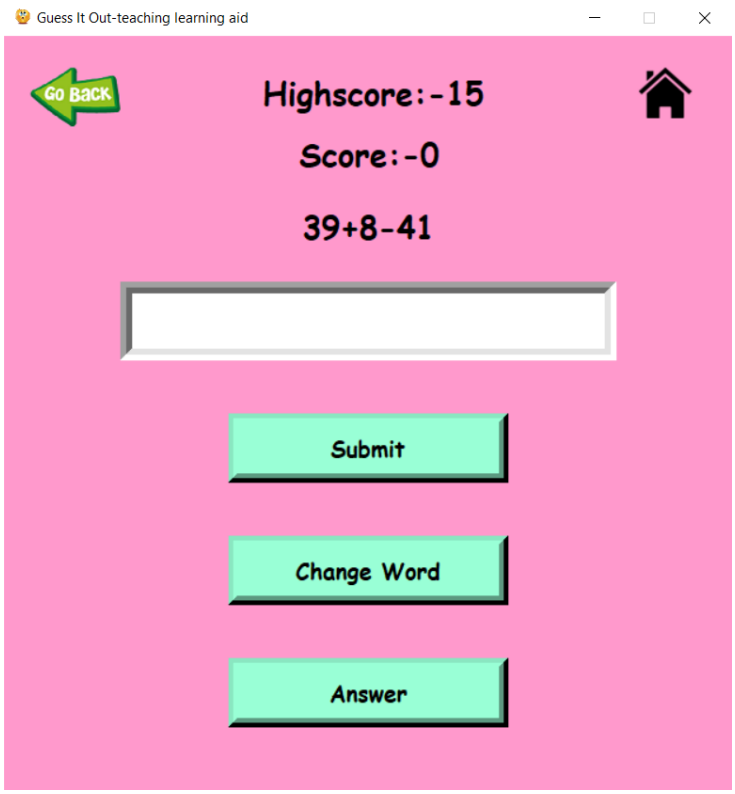

Guess It Out-teaching learning aid
Go Back
Highscore:-15
Score:-0
39+8-41
Submit
Change Word
Answer

Fig. 4.9

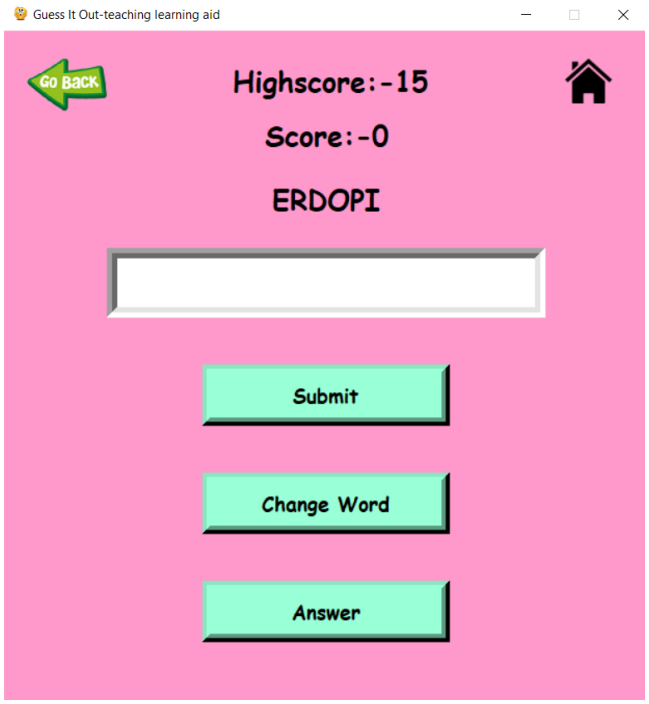


Fig. 4.10

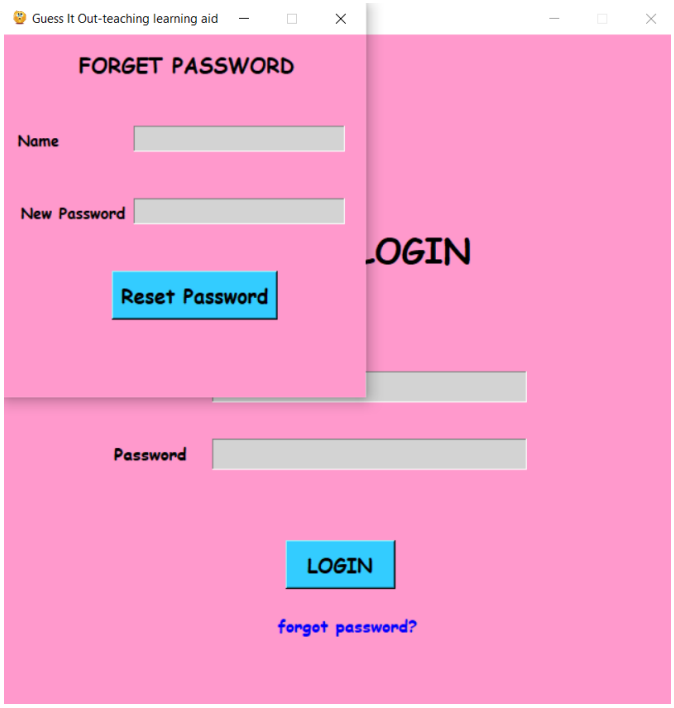


Fig. 4.11

CONCLUSION AND FUTURE SCOPE

Conclusion

This project is an interactive Python Game with a Graphical User Interface where the user has to guess the right answer. It is a simple project for helping your kids grow in IQ. Because of the epidemic, everything has gone virtual; not just adults, but even children, are suffering more and finding it difficult to cope. Children struggle to focus on their online lectures and are quickly distracted, while teachers struggle to make the lectures engaging. So, quiz games become an interesting technique which can be implemented by teachers to teach. Quiz games can help teachers to hire students' participation and students' courage in learning English and math. Besides raising so much fun, quiz games is believed could increase the students' speaking and solving skill. The project contains user side and database. The question will be displayed on the screen and you have to type its correct answer. You can change the question if you are not able to guess the correct answer. By doing this activity, the students could develop their knowledge skill of in a fun way.

Future Scope

- The application can be easily implemented under various situations. We can add new features when required.
- Reusability is possible and can be custom made.
- Project can be used as a base for higher level learning games with use of new technologies on it.
- It is likely to attract large % of students and teachers to engage on it.
- It is very broad in terms of gaining knowledge and sharing knowledge among world.
- This application will be used in educational institutions as well as in corporate world.

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