User Guide

Child Education System

PREFACE

The software is Developed on Microsoft Visual studio 2013 using Visual basic and MS Access Database. For best experience, we advise user to download MS Access Database Engine 2010 Redistributable 32-bit in their system or they will experience some contraction glitches (part of VB.Net, nothing we can do) in the forms.

This software is Developed to make the learning of children easy and enjoying. Several games are made on different topics like Arithmetic Operations, Abacus, identifying different shapes to make their learning interesting, in some games timers are set to increase the speed of students. Several videos are also linked on different topics to make their learning easy. There are quizzes for each module to check the things grasped by the child through games or videos.

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LOGIN PAGE

In the start of the application, there will be a software form, parents can login by entering username and password to start the learning of their child.

Sign Up

First time user can create account by clicking on **Sign Up** button and then enter the information asked. Email and security question is asked for the situation where you had forgotten password, so it is advised to choose and answer the security question carefully. After filling the necessary information click on **Login** button, your account will be created.

Forgot Password

In case they had forgotten password –

(1) They can click on **Forgot Password** button so that an email will be sent to the parent's email which they had entered while signing up, containing a random password which will allow user to login. It is advisable to change the password after that.

(2) Or they can answer the security question which they had filled during signing up, enter the username and new password and then click on **Update Password** button to update the new password.

HOME PAGE

After logging up, the home page will be opened on that child's profile will be by default displayed.

Edit Profile

To **edit or update** the information click on **Edit** button in profile module. Edit or update the field and then click on **Save** button for saving it.

Update/Edit/Delete Profile Pic

- Click on **Update Profile Pic** button to add new profile pic or to change previous profile pic.
- New form will be opened, select the image from your PC which you want as your profile pic and click on **Open** button. If there is already image in your profile picture then it will get overwrite by the image that you had choosen.

- To delete the profile pic simply click on **Delete Profile pic** button.

Delete Account

For deleting account, click on **Delete Account** button present on the right of the Homepage.

Basic Operation Module

To start the games focussing on Arithmetic Operations click on **Basic Operations** button. After clicking on this button, you have to choose one of the 3 games displayed.

Cricket

Some Basic Instruction for this game:

- Click cricket button to start the game.
- In this game user need to enter the correct answer for given sum in the provided box.
- Answer can be entered from keyboard or NumericUpDown control.
- For solving each question 30sec time limit is there.
- The format of this game is to chasing the target set by opponent. For this user has three overs i.e. 18 attempts.
- Every attempted question will reduce remaining ball count by one (User cannot skip the question) .
- Every correct answer will start a pointer which will be pointing to some random number i.e Numbers for runs and 'bol' for wicket . In order to

score runs as much as possible and win the match user need to stop the pointer by clicking **Stop** button .

- If user could be able to chase the target in given overs then he will be the winner.
- For incorrect answer user will lose one ball i.e it will be considered as dot ball.
- To quit the game Click on Close button .

Abacus Module

Abacus module is a software that teaches kids to use subtraction, addition, multiplication and division using abacus.

It gives kids the question to practice this operations using abacus. The child can improve its skills by levelling up and practicing hard questions.

Introduction

The Introduction module contains the general instruction on how to use abacus and the abacus`s convention.

Videos

By clicking on **Video** button, you can different links that can used for learning subtraction, addition, multiplication and division using abacus.

Basic Operations

Each operation contains quizzes. Where: -

Level 1 of the modules have 5 questions.

Level 2 of the modules have 6 questions.

Level 3 of the modules have 7 questions.

Level 4 of the modules have 10 questions.

Level 5 of the modules have 12 questions.

Level 6 of the modules have 13 questions.

Level 7 of the modules have 14 questions.

- Click on **Addition** button to practice addition using abacus.
- Click on **Subtraction** button to practice subtraction using abacus.
- Click on **Multiplication** button to practice multiplication using abacus.
- Click on **Division** button to practice division using abacus.

Some Basic Instruction for quiz:

- This page will be having a **back** button which makes you go to main page. When you go back to the main page the previous unlocked levels are saved and you can begin where you left of in that module.
- You will be given 2min time to answer each question
- You have to represent answer on abacus.
- You can move the beads by clicking on them. One click makes bead go up and again another click makes it go down.
- Submit it using **Submit** button.
- Use "Reset Abacus" button to reset the abacus.
- The abacus given can do manipulation up to 4 digits.
- As you move ahead in level the difficulty of questions will increase, also numbers of problems to unlock the new level will increase.
- There are 7 levels in this part.

Abacus

Click on **Abacus** button to practice abacus. This abacus has 13 columns.

You can reset the abacus by clicking **Reset Abacus** button.

Identifying Shapes and Pattern Module

To start the games focussing on Identifying Shapes and Pattern click on **Basic Operations** button present on the homepage. After clicking on this button, you have to choose one of the option displayed.

GAME

Click on Game button, to start the game. This game is to test the user that how much he has learned about shapes. After opening the game page, just click on **Play** button there will be an instruction box popped up on the screen to play this game. Then click on the **I Got It** to proceed in this game.

Some Basic Instruction for this game:

- A bunch of shapes will be moving from one side of screen to other side at constant rate.
- Among the shapes you have to click on *Triangles, Rectangles and Circles* before it will pass the other side of screen.
- You will be provided with 10 Life in this game.

- For every **Click** on shapes among the three which have written above you will get **10 Point**. For every shape that will pass on the other side of screen among the three, then you will **lose one life for each**.
- When your life become **Zero** then the game will automatically stop and your total score will be displayed on the screen.
- You can pause in between the game and can resume it from that point on to continue.
- Click on **Exit** button to exit the game.

Figure question

Click on **Figure Question** button to start the quiz. This is a simple quiz, based on real life object we have to determine its geometric shape. And some questions are to determine the next sequence in the figure.

Some Basic Instructions for Quiz:

- Total time given for answering a question is 25sec.
- For every question there will be four options, you have to click on any one of the picture to select.
- There is a textbox which show whether clicked answer is right or wrong.
- If you cannot choose a picture in 25sec than the next question will come automatically.
- You can move to next question if you want by clicking **Next** button.

- There is no negative marking for not giving answer or for giving incorrect answer.
- Click on **Exit** button to exit the quiz.

No Figure Question

Click on **No Figure Question** button to start quiz. In this part there are multiple choice questions in which there are four options.

Some Basic Instructions for Quiz:
- There are four options and only one of them is correct.
- Total time given for answering a question is 25sec.
- You have to tick on any of the option, then Click on **check** button. After that there is a textbox which shows whether that answer is right or wrong and next question will appear on the screen.
- There is a label present there which indicates your score.
- You can move to next question if you want by clicking **Next** button.
- There is no negative marking for not giving answer or for giving incorrect answer.
- Click on **Exit** button to exit the quiz.

Shape Definition

Click on **Shape Definition** button to know about some shapes. In this part, all the shapes with their properties are displayed one by one.

- You can view the next shape by clicking on **next** button
- You can also view the previous shape by clicking on **previous** button.
- You can also view the specified shape by entering its serial no. in the **textbox** present on the top of the screen and then click on **Go to** button.
- Click on **Exit** button to exit it.

All Shapes

Click on **All Shape** button to learn more about the shapes.

- All most every shapes are there.
- You can click on **Next** button to view all the shapes present.
- Click on the shape about which, you want to learn more.
- Click on **Exit** button to exit it.

Quizzes

Click on the **Quizzes** present on the Homepage, to enter in the Quizzes Module. Different games are made to make the Quizzes interesting. After clicking on **Quizzes,** you have to choose one of the game.

2048

Click on **2048** button to enter in the game.

Some Basic Instruction for this game:

- *2048* is played on a 4×4 grid, with numbered tiles that slide smoothly when a player moves them using the **four arrow keys**.
- Every turn, a new tile will randomly appear in an empty spot on the board with a value of either 2 or 4.
- Tiles slide as far as possible in the chosen direction until they are stopped by either another tile or the edge of the grid.
- If two tiles of the same number collide while moving, they will merge into a tile with the total value of the two tiles that collided. The resulting tile cannot merge with another tile again in the same move. Higher-scoring tiles emit a soft glow.
- The user's score starts at **zero**, and is incremented whenever two tiles combine, by the value of the new tile.
- When the player has no legal moves, game ends.
- You can start the new game by clicking on **New Game** button.
- You can exit the game by clicking on **Back** button.

Images Quiz

Click on **Image Quiz** button to enter in the game. Through this game you can improve your vocabulary.

Some Basic Instruction for this game:

- User can select from various fields provided on this page to proceed. Fields provided are objects, flowers, Fruits, Animals etc.
- Questions consist of an image for which user have to enter the correct English word.
- Alphabets of the word should be chosen from the given set of Alphabets given below.
- Alphabet which is being clicked will fill leftmost empty box.
- The letters which user can choose are in black colour and used one will be green in colour.
- **Back** button clears last letter entered by user.
- **Clear** button clears all letters entered by user.
- Hint button is provided for helping user in solving the question. Four types of hints are there:
    1. Random Letter – This hint will fill any random box with correct letter.
    2. Selected Letter – This will ask to select any of the boxes having '?' in it, Selected box gets filled with correct letter.
    3. Remove Extra Letters – This will remove the letters which are not required from the set.
    4. Solve – This will solve the complete question automatically.
- **Submit** button is for submitting the entered answer.
- Clicking **Leave** button will exit the quiz (If user later start the quiz then it will be started from the question where user left previously).
- Solving of the question gradually will lead to increase in level and toughness.

Pipeline

Click on pipeline **button** to get started. This game is for improving mental ability of child.

Some Basic Instruction for this game:

- Choose toughness and level which you want (can choose a level if he has completed all previous levels). There are five stages and 50 level for each stages.
- User will be given 60sec to solve the puzzle.
- In this puzzle user needs to form a path using pieces of pipes to go from upper left corner to lower right corner.
- By clicking on any grid piece you can rotate it clockwise by 90-degree.
- User have to complete the path to win the game and move to next level.
- Back button is provided to quit the game and go to Level pipeline.

Restrictions, Limitations, and Constraints:

1) Proper user credentials required.

2) Only users with access rights can perform privileged tasks.