

Kids Learning Application Using Python

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Abstract— Kids learning application is a python application that shows four different images and a button next that takes the user to a checkbox list where our app users must recall the four images that were shown. This will improve the user's memorization speed and help him develop his brain. There will also be a refresh button to change the images displayed. This can be utilised to help underage children in nursery grow their minds and improve their memorising skills from a young age.

Keywords: Kids Learning Application, Python

I. INTRODUCTION

Learning applications can assist you at any point during your education. They can help students learn by facilitating learning, controlling learning, providing resources, and providing support. Acquiring applications can assist you in learning new skills, providing instructions, or even guiding you through the entire learning process from novice to expert. Learning applications make learning fun and engaging by combining new mobile technology, gamification, psychology, and best teaching techniques. Many schools already employee mobile apps to make studying more engaging, particularly for tablets that may be used in class.

Google and Apple, for example, have released tablets and laptops expressly for schools to accommodate this digital learning trend. Apple, for example, debuted a new iPad this year, along with a slew of educational apps.

A. Concept

Finding high-quality educational applications in 2020 appears to be a tough undertaking, especially given the fact that there are over 500,000 educational apps available. It might be difficult to find high-quality education apps that truly improve teaching and learning. We've spent hours researching and testing educational and learning apps that educators, teachers, parents, and students suggest. Kids can master early academic abilities like math and reading with the help of interactive educational applications.

Most apps for tablets and smartphones in the field of education technology aim to improve students' and teachers' educational experiences. On the App Store and Google Play Store, tens of thousands of educational applications cover everything from math and English to science and history.

B. Project Requirements

Educational applications assist children in learning the abilities they will need to execute everyday chores and future career responsibilities. They can also serve to pique children's interest in things that they might otherwise find boring. Teachers can use apps to alter and modify their teaching methods and styles so that students can study at their own speed and capitalise on their strengths.

Using instructional apps, on the other hand, may result in your child having too much overall screen time, as

well as distraction and overstimulation. While most of these applications have been around for a while and are highly regarded as learning tools, they cannot replace one-on-one instruction or free play. Too much screen time may impair your child's capacity to learn.

II. REVIEW OF THE LITERATURE

A. Review

As the number of people using Educational Apps grows every day, and more people start using them at a younger age, it's important to grasp the benefits and drawbacks of this technological tool. However, the material can be daunting, especially for those who are just getting started with their research. As a result, a Systematic Literature Review was undertaken on 119 published scientific papers in order to build a work that synthesises all of the most recent data on the most commonly used keywords, funding assistance, authors, and publishing journals, to mention a few. Additional data demonstrates the necessity to analyse the success of Educational Apps, as mentioned by the authors and supported by their research. Furthermore, various strategies are presented to deal with

B. Problem Description

Thanks to the evolution of kids app development, children can learn about anything at any time and from anywhere in today's modern world. Children have been more active as a result of utilising these apps on a variety of gadgets, including iPads, iPhones, and smartwatches. It's challenging to keep a child both entertained and educated. Game development for kids has become an important tool for making this chore easier. There are also great educational apps for kids available that make learning and education enjoyable for children.

C. Objective

- Education is the foundation of everything that exists on the world, and it has no end. Human progress would come to a halt if it were not for education.
- Technology has a place in the twenty-first century. And, as we all know, technology has had a significant impact on the education industry. For a long time, these ever-changing technologies have been redefining the education profession.
- In today's e-learning environment, educational apps are adding to the hat. Learning apps make learning more convenient for students and even enjoyable.
- Our project's major goal is to do the same thing with the help of our software.
- We allow young children to assist in the understanding of basic and significant concepts.
- Education is simple and effective.

III. PROJECT OBJECTIVES

Most education systems have been forced to adopt alternatives to face-to-face teaching and learning as a result of the present covid 19 problem. Many educational systems transferred activities online to ensure that instruction could continue even while schools were closed. When compared to the alternative of not attending school, online schools have proven to be an effective way to maintain skill development during school closures.

However, there are also worries that online learning may have been a sub-optimal substitute for face-to-face education, particularly in the absence of universal access to infrastructure and inadequate teacher and student preparation for the unique needs of online teaching and learning.

Students can overcome some of the possible hurdles provided by online learning by developing strong attitudes toward learning.

IV. PROJECT RESOURCES USED

A. GITHUB:

GitHub is a company that provides a Git repository hosting service in the cloud. It essentially simplifies the use of git for version control and collaboration for individuals and teams. The GitHub UI is user-friendly, making it simple to use. Other than keeping a common software code, GitHub may be used for a variety of projects. Some collaborations utilise it to write books. Furthermore, anyone may sign up for free and maintain a public code repository, making GitHub particularly popular with open-source projects.

B. Jupyter Notebook

The original web application for producing and sharing computational documents is Jupyter Notebook. It provides a straightforward, simplified, and document-focused environment.

Jupyter is a computational notebook, a free, open-source, interactive web tool that allows academics to mix software code, computational output, explanatory text, and multimedia resources in a single document.

C. SPYDER

The Scientific Python Development Environment, or Spyder, is a free integrated development environment (IDE) that comes with Anaconda. Editing, interactive testing, debugging, and introspection are all available.

After installing Anaconda, execute the command spyder on Windows, macOS, or Linux to launch Spyder.

Anaconda Navigator, which comes with Anaconda, also has Spyder pre-installed. Click the Spyder symbol on the Navigator Home tab.

Visit the Spyder web page or the Spyder documentation for further information.

V. PROJECT OUTPUT

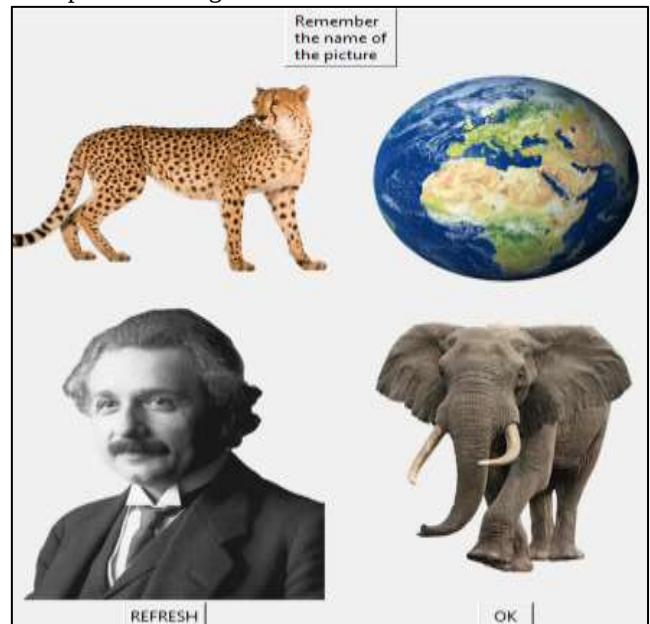
A. Application Information

1) Image Identify Activity

A python-based picture identification activity with a refresh and submit button. When the user presses the refresh button, a random four images appear on the home screen.

While submitting, the user must remember the names of the photographs. Once the submission is complete, the user may be given alternatives based on checkboxes for remembering the names of the images in the application.

As a result, the Genz children will quickly grasp the concepts of learning.



2) Quiz Application Activity

The user will now have five options for the quiz activity. The user will input 1st in the first choice.

For simultaneous inclusion of the second, third, and fourth/ (sub, mul, div) the user will be able to exit the activity using the fifth option.

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*****
** A Simple Math Quiz **
*****
1. Addition
2. Subtraction
3. Multiplication
4. Integer Division
5. Exit
-----
Enter your choice:

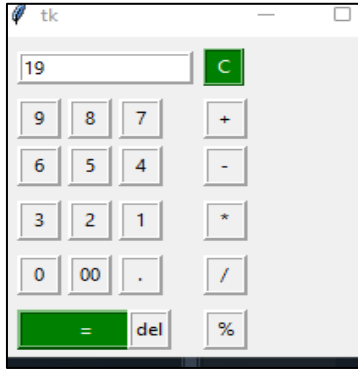
Enter your choice: 1
Enter your answer
17 + 1
= 18
Correct.

Enter your choice: 4
Enter your answer
2 // 15
= 7
Incorrect.

Enter your choice:
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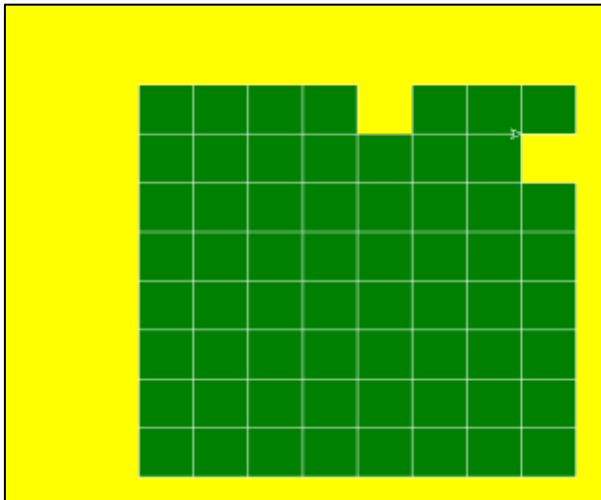
3) Calculator Activity

The calculator activity was created so that kids could see how well they did on the quiz and evaluate their accuracy using the quiz and calculator.



4) Activity of Number Identification

If the user clicks on the same number boxes in the grid matrix format, the boxes are removed from the matrices and the user can find the same number.



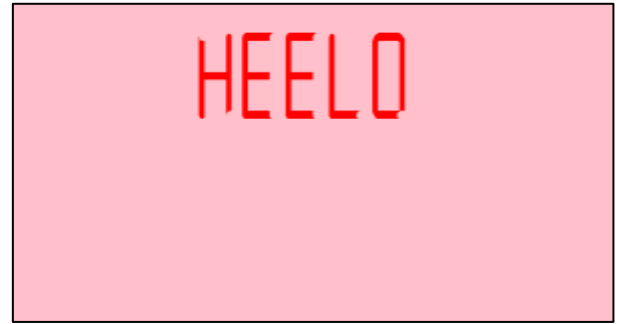
5) Color Identification Activity

When the user initially launches the programme, they will see an empty textfield where they can enter in any text or the name of the colour. If they do not type in the colour name, they will receive a warning. A timer will also be set for 30 seconds.



6) Whiteboard Activity

Now the user must enter text as desired, as well as the background and foreground colours, in order to print the data in the gui in the shape of a whiteboard.



VI. PROJECT RESULTS

A. Result

The following are the outcomes of children's learning software:

A software not only helps children learn about the world around them, but it also helps them develop their skills from an early age, allowing them to stand out from their peers, which is especially important in today's world where children are under pressure to stand out in order to pave a better future for themselves.

Advantages from the perspective of parents:

- 1) Parents can observe their children's development and refinement of skills.
- 2) Parents can sit back and let their children engage in self-interest without having to constantly oversee them.
- 3) It is beneficial to families who do not have access to a nursery or whose children were stranded at home during the pandemic.

VII. PROJECT CONCLUSION

A. Final Thoughts

We designed an application to boost kids education and learning utilising the power of software because having a nursery or access to better education can be difficult in some locations owing to the pandemic or other reasons.

This not only benefits the children and their parents, but it also helps our organisation establish a stronger reputation.

Our application is incredibly user-friendly for both children and their parents. Our programme is very engaging for the young ones and covers a huge number of abilities needed in everyday life, so the user does not need to be tech savvy to utilise it. The programme is extremely colourful and aids with the development of abilities

B. Future Perspective

Our company's success depends on providing a better experience for both children and parents. This can be accomplished by improved software optimization, more engaging programmes, better session and performance tracking for children, and improved user interface and experience. Furthermore, some companies have already begun to join this field, indicating that the market for online learning and children's education applications has a lot of potential.

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