



**DEPARTMENT OF INFORMATION TECHNOLOGY AND
COMMUNICATION**

**DIPLOMA IN INFORMATION TECHNOLOGY(DIGITAL
TECHNOLOGY)**

MIKO : IQ GAME APPLICATION

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SESSION : 1 2021/2022

DECLARATION

Except for citations and quotations that have been properly acknowledged, we thus declare that the technical report titled "MIKO: IQ GAME APPLICATION" is based entirely on original work produced under the supervision and direction of Madam Tan Phei Yee. We further declare that it has not previously or concurrently been submitted for any other Politechnic diploma or prize.

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Session : 1 2021/2022

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TABLE OF CONTENT

No.	Content	Pages
1.0	Abstract	1
1.1	Project Introduction	2
1.2	Problem Statement	3
1.3	Objective	4
1.4	Project Scope	5
1.5	Project Significant	6
1.6	Literature Review	7-12
1.7	Methodology	13-14
1.8	Gantt Chart	15
2.0	Functional requirement	16
2.1	Non-functional requirement	17
2.2	Hardware requirement	18
2.3	Software requirement	18-20
2.4	System Configuration	20-25
3.0	Final design	26-46
4.0	Discussion	47
4.1	Advantages of the project	47
5.0	Limitations of project	48
6.0	Conclusion	49

7.0	Reference	50
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1.0 ABSTRACT

The Pusat Jagaan Graduan Ceria teachers and students are the target audience for the MIKO IQ gaming application. With the help of the internet and digital technology, this application offers interactive learning platforms that are learner-centered. The Miko Iq Gaming Application offers a platform where students may access math games and some instructional films to speed up their learning. Additionally, the teachers can utilise this programme to teach the pupils effectively and efficiently, which will enhance the teaching process. For this project, the scripting language utilised was Android Studio, acting as a communication bridge between the back end and the users. As a result, this initiative has the potential to significantly enhance both the learning and teaching processes for both students and teachers at Pusat Jagaan Graduan Ceria in Simpang Ampat.

1.1) INTRODUCTION

The process of creating software for smartphones and digital assistants, most frequently for Android and iOS, is known as mobile application development. Nowadays mathematics become very hard subject to understand by kindergarden students. Interactive computer games having three-dimensional graphics—height, breadth, and depth—are referred to as 3D games. It's thought that 3D gaming can produce an authentic, immersive experience in android.

At the end of the project we able to present a IQ game application. The reason of the proposed project is mainly for kindergarden kids with added their syllabus in the application as aligned with PUSAT JAGAAN GRADUAN CERIA .As the application games based on the KSSR syllabus ,students may enjoy their lesson and improved their academic level. As well we also have section for a general knowledge section to explore .

We using Android Studio software to develop our application.Android Studio is the free and open source . The official integrated development environment (IDE) for creating Android applications is called Android Studio. It integrates the code editing and developer tools from IntelliJ IDEA, a Java integrated development environment for applications.

Android Studio employs a Gradle-based build system, emulator, code templates, and Github integration to assist application development for the Android OS. In Android Studio, every project contains one or more modalities that include source code and resource files. These modalities consist of Google App Engine modules, Library modules, and modules for Android apps

1.2) PROBLEM STATEMENT

- 1) Students become boring to learn their subjects from textbooks and this make them slow too in their studies.
- 2) The traditional learning approach is very expensive. The costs are caused by the necessity to produce and distribute printed materials to the students.
- 3) There are only few iq gaming application included with kindergarden (mathematics) syllabus for free.

1.3) OBJECTIVE

1. To develop an IQ gaming application in Mathematic through mobile.
2. To be used as learning aids for the teachers.
3. To provide a 3D IQ gaming application that can helps students get more knowledgeable in mathematic.

1.4) SCOPE

This project is to develop a IQ gaming application with added kindergarden syllabus especially for mathematics subject for students at PUSAT JAGAAN GRADUAN CERIA, TAMAN BANDAR TASEK MUTIARA, SIMPANG AMPAT, SEBERANG PERAI SELATAN, PULAU PINANG.

1.5) USER SCOPE

- A) Teacher : This application will be used by kindergarden teacher to give extra exercise related to mathematics subject for the students.
- B) Student: This application will be used by the students to learn and obtain knowledge from the gaming application to do extra exercise related to mathematics subject.

1.6) SYSTEM SCOPE

Users can intuitively control mobile devices thanks to system design that mimics basic gestures like pinching, swiping, and tapping. Children with autism can play a variety of games on mobile devices, including visual simulation games, auditory simulation games, and problem-solving games that stimulate the brain especially in mathematics. It aspires to address modern human needs by offering healing, education, and entertainment games online. This project is develop for PUSAT JAGAAN GRADUAN CERIA, SIMPANG AMPAT. The software we using for develop the application is Andriod Studio.

1.7) PROJECT SIGNIFICANT

The idea of project is called MIKO IQ GAME application and uses the popular mobile technology we have today in our smart devices. that enable users to finish tasks that train particular cognitive abilities such as memory, attention span, reasoning, and quick thinking. Students should play this IQ game since it will help them learn more from their textbooks than they would otherwise. It's not the only reason to play games, but it's an important factor in why they are so popular with youngsters.

According to parents, gaming can help kids master necessary but difficult skills that they might otherwise refuse. As a result, we use IQ Games to assist students in developing their skills. The way the study is presented.

This app's ability to distribute any learning resources quickly and effortlessly is one of its main advantages for teachers. Research has shown that incorporating games into the classroom can boost student engagement, promote quicker social and emotional learning, and encourage risk-taking. This makes it simpler for teachers and gives them the opportunity to give students access to more learning resources. More children will participate and learn more about what the teacher is trying to teach because our app is an IQ game. Due to the abundance of study material, it is quite simple for professors to post various topics to this app, which students may then access.

1.8) LITERATURE REVIEW

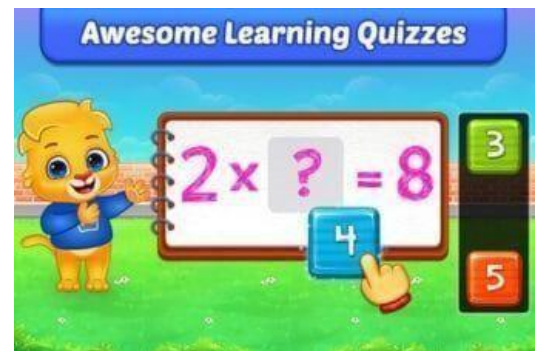
A useful IQ game and study program for pupils is MIKO IQ GAME. Due to its capabilities, it will also offer helpful tools in a captivating setting. It allows users to continue working while they are learning.

This section will cover comparisons and an explanation of the system that will use similar techniques to the MIKO IQ GAME Application. The system's quality will also be raised by the literature review by making some further changes that will enhance the user experience in general.

MIKO : IQ GAME

MIKO:IQ GAME is simple as everyone can use this app. The IQ game is different than other games. It's not only same game as other.. MIKO: IQ GAME will be kid's favorite game because it's colorful, attractive, easy IQ Games, best sound effect and visual. It's a mathematics IQ Game and based on KSSR Kindergarden syllabus. This application is quick learning phase and everyone can use it. Especially ads free. We inform children progress by sending email to school and parents.

Kids Math : Math games for Kids



Parents should never start your child's education too early. Toddlers, preschoolers, kindergarteners, older children, and others are eager to learn the alphabet, numbers, addition, subtraction, and other skills. Sharing clever, well-made educational apps and games with children frequently is the greatest way to support that.

A free educational game called Math Kids is made to teach basic math concepts to young children. It has a variety of mini-games

that preschoolers and toddlers will enjoy playing, and the more they play, the more their math abilities will advance. Preschoolers, kindergarteners, and first graders can use Math Kids to learn how to recognize numbers and begin practices addition and subtraction problems. They'll love completing games and collecting stickers, and you'll love seeing them develop and learn.

Strength

More likely to remember information when they are able to play while they are learning. Additionally, it increases their desire to learn, which will greatly benefit them when they enter kindergarten. A number of features in Math Kids also assist parents in managing and monitoring their children's progress. You can adjust game settings to make them harder or easier, or you can look at report cards to view the results of past rounds. The ideal way to learn the fundamentals of counting, addition, and subtraction is with Math Kids. In addition to early mathematics, it will educate your toddler, kindergartener, and first-grader sorting and reasoning skills, laying the groundwork for a lifetime of study.

The Moron



Moron is a brain teasers with simple, addicting gameplay and also Puzzle games with six sections featuring hundreds of fun puzzle. The memory games that test your cognitive capacity and also its Logic games with tricky, unexpected twists. The Moron is a Knowledge games where you have to (try to) think fast. Trivia games let you flex your knowledge. The Shape puzzles to challenge your spatial powers.

Strength

Strength Puzzle games with funny characters, sound effects and music. Global leaderboards of the smartest minds on Earth!. Also High IQ achievements! We also have Low IQ ones if that's more your speed. Lastly, Fun casual games with beautiful graphics. Lots of pictures just like in your favorite books!



Toodler



Children in prekindergarten can play educational toddler games. Our app's 15 preschool exercises for toddlers will aid in the development of your child's fundamental abilities, including hand-eye coordination, fine motor control, logical reasoning, and visual perception. These games are appropriate for both males and girls and can be taught to children in preschool and kindergarten.

Strength

Size game: Understand differences in sizes by sorting inventory into correct boxes.

123 game: Counting for toddlers to learn numbers 1, 2 and 3.

Puzzle game: A simple puzzle for kids to improve hand eye coordination.

Logic game: Develop memory and logic with cute animals.
 Shape games: Sort items by shape to develop visual perception and hand eye coordination.

Color games: Sort items by color while riding on a train or equipping a boat.

Logic game: Understand the purpose of the items shown.

Pattern game: Develop visual perception by sorting items with different patterns.

Memory game: Choose correct object that was shown earlier and fits others by its type.

Attention game: Develop attention and fine motor skills in a simple but very entertaining game.

Preschool Learning Games-Fun



An educational app for toddlers and Pre-k kids. Children can touch, hear, and experience counting, ABC, piano, music, sizes, shapes and colors playing Kidz games.

Apart from basic learning and Preschool activities, the Games4kids also focuses on the motor skills and hand-eye

coordination enhancements for kids by multiple fun learning activities and preschool games, based on the kinesthetic learning process.

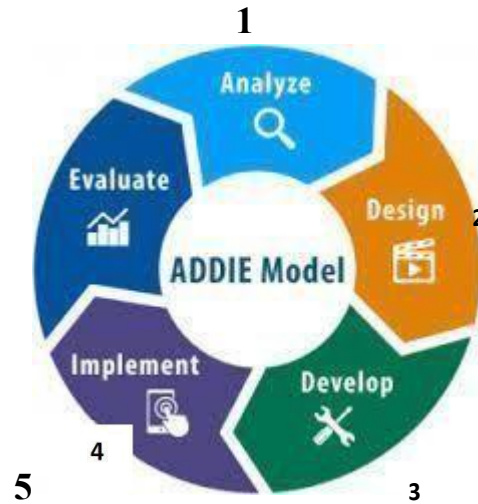
Strength

20+ interactive KIDS SAFE games for toddlers and preschoolers for early childhood education. Beautifully designed interactive Kids Games with colorful and interesting cartoon characters. Great sound effects and awesome animation. Help your kids learning ABCs, Colors, Numbers etc. using educational activities for children. Activities such as building cars and car racing help to enhance the motor skills and hand-eye coordination. Engaging and fun educational games for kids from age 2 to 6. Intuitive touch control specially designed for Pre-k and kindergarten kids. Stickers at the end of each game.

	MIKO : IQ GAME	KIDS MATH : MATH GAMES FOR KIDS	THE MORON	TOODLER	PRESCHOOL LEARNING GAMES FUN
DESCRIPTION	It's 3D application and enable users to finish tasks that train particular cognitive abilities such as memory, attention span, reasoning, and quick thinking	A free educational game called Math Kids is made to teach basic math concepts to young children. It has a variety of mini-games	Moron is a brain teasers with simple, addicting gameplay and also Puzzle games with six sections featuring hundreds of fun puzzle	This app's 15 preschool exercises for toddlers will aid in the development of your child's fundamental abilities, including hand-eye coordination, fine motor control, logical reasoning, and visual perception	An educational app for toddlers and Pre-k kids. Children can touch, hear, and experience counting, ABC, piano, music, sizes, shapes and colors playing Kidz games.
3D	YES	NO	NO	NO	NO
EASY LOGIN	NO	NO	YES	YES	YES
BEST SOUND , VISUAL & EFFECT	YES	YES	YES	NO	YES
ADS FREE	YES	NO	NO	NO	NO

1.8) METHODOLOGY

The research methodology adopted for this project is ADDIE Model



ADDIE is an instructional systems design (ISD) framework that many instructional designers and training developers use to develop courses.^[1] The name is an acronym for the five phases it defines for building training and performance support tools is Analysis, Design, Development, Implementation, and Evaluation. This ADDIE Model help us to plan what is next step of this project. The Analysis phase, Development Phase, Implementation Phase and Evaluation Phase are all covered in this chapter.

Analysis

The analysis step defines the learning environment, the learner's current knowledge and skills, and the instructional difficulties and objectives. The analysis phase addresses a few specific topics, such as who the learners are and what their features are, what the expected new behaviour is, and what kinds of learning restrictions are present. plus more. These inquiries are frequently made as part of a requirements analysis. Instructional designers (IDs) identify resources and restrictions during the needs analysis in order to properly fine-tune our action plan. We discuss the problem statement of our project and gather all data from process owner. Then analysis the software used to develop the project and discuss the objective, scope of the project.

Design Phase

The design phase deals with learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection. We decide our design phase to be systematic and specific.

Development Phase

The development phase of the project has finished with its current iteration. Based on the research and design methods we used, we will begin creating the application. The application will be created to meet the needs of the user. For this project, we will be using the Blender software to create the application, which will improve both the quality of student learning and teacher instruction.

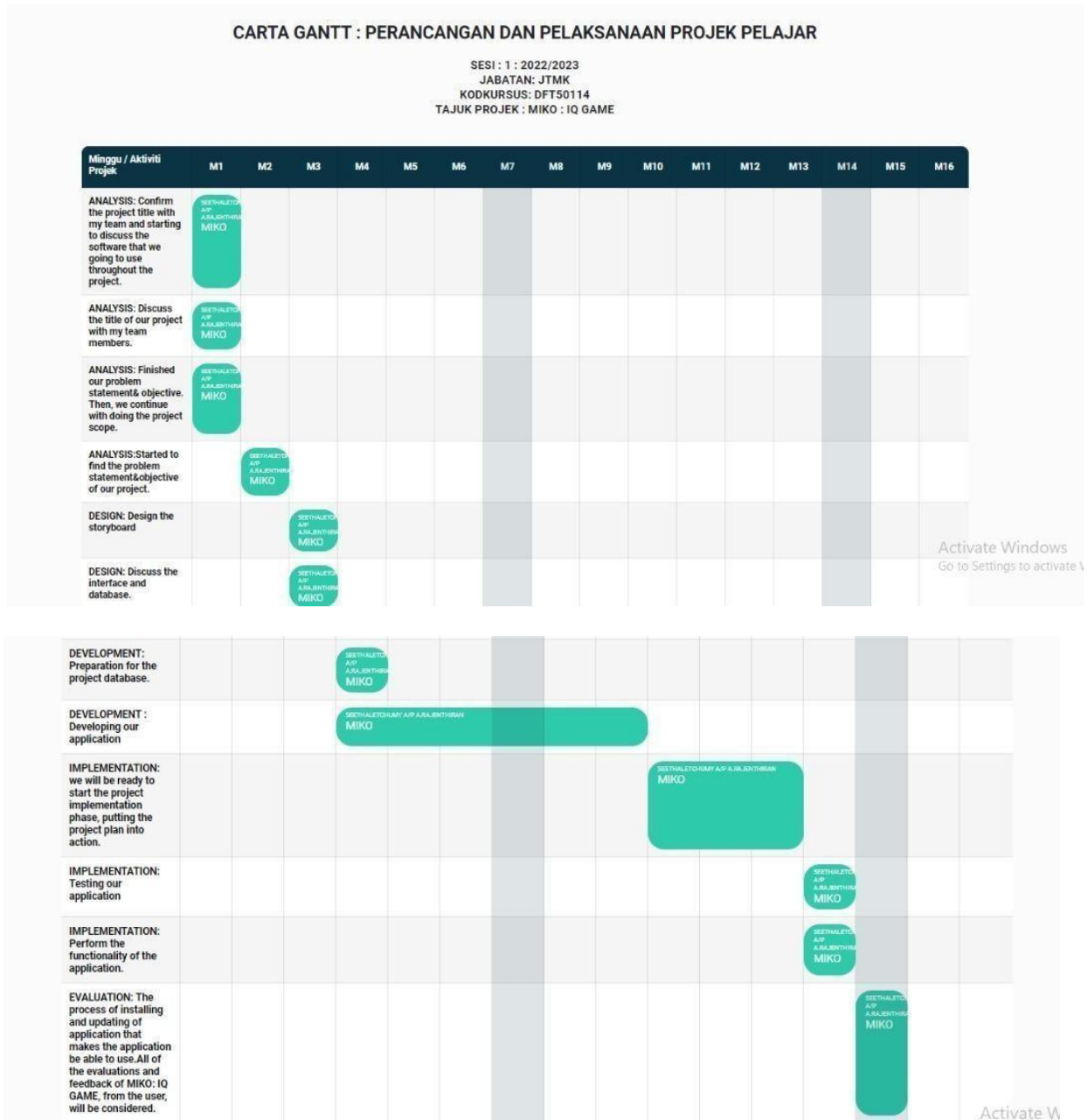
Implementation

Users will be able to access the application once the development phase is through (teachers and students). The teachers and students of PUSAT JAGAAN GRADUAN CERIA, Bandar Tasek Mutiara, Simpang Ampat, Penang, will use this application.

Evaluation

To further enhance the project and the user experience, all ratings and comments regarding the MIKO IQ GAME Application from users and the project panel will be appreciated.

1.9) GANTT CHART



2.0 FUNCTIONAL REQUIREMENT

Display Content	All the contents (related to maths) are displayed in this project.
Interact with Application	Students and Teachers are able to interact with the interface by clicking on the respective contents.
Connection with Database	This project is able to collect and push data/information received to the database.

2.1 NON-FUNCTIONAL REQUIREMENT

Security	The application is fully secured
Availability	The application will always be accessible for the Teachers and Students.
Maintainability	The application cost-effectively over its usage, and can incorporate additional requirements such as modifiability and configurability
Performance	The application is designed and built with an acceptable standard of performance.
Language	The main language used in this application is English Language.

2.2 HARDWARE REQUIREMENT

Hardware	Description
Computer/Desktop	For interacting with the programme

2.3 SOFTWARE REQUIREMENT

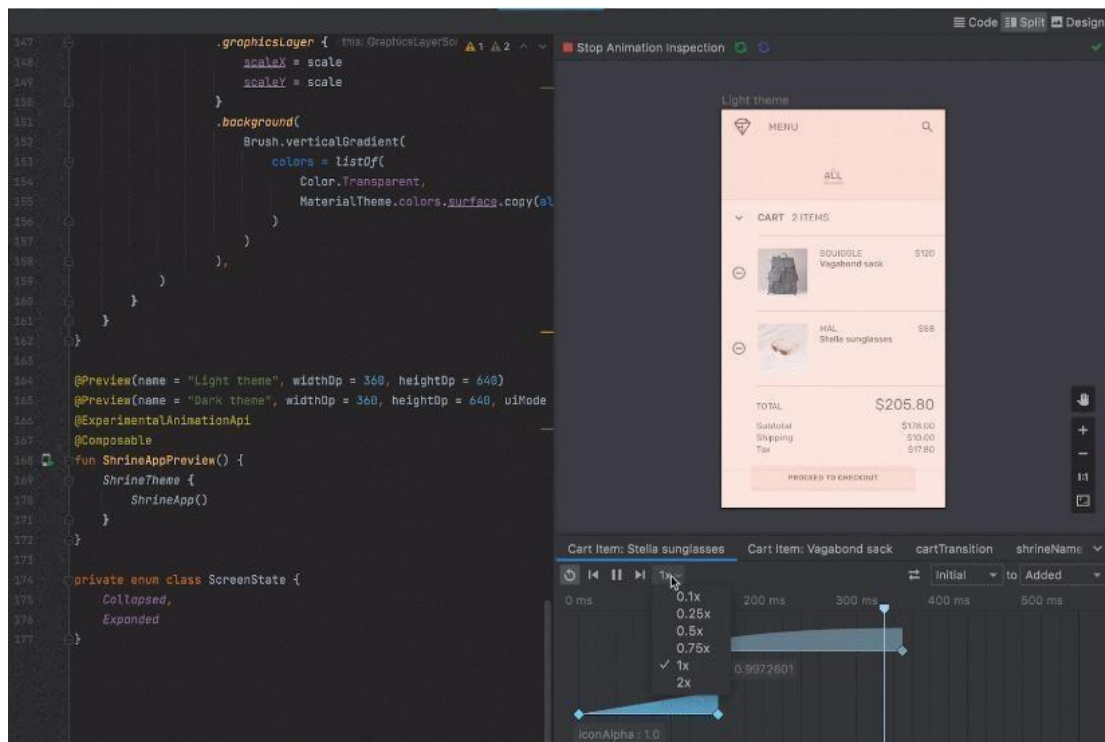
Based on table 2.2, it shows the software in detail used to develop this application.

SOFTWARE	DESCRIPTION
Operating System	Window 10 10.0
Operating System Architecture(VM)	OpenJDK 64-Bit Server VM by Oracle Corporation
Programming Software	Android Studio Chipmunk 2021.2.1 Patch 2
Run Time Version	11.0.12+7-b1504.28-7817840 amd 64
GC	G1 Young Generation, G1 Old Generation
Memory	1280 M
Cores	8
Registry	external.system.auto.import.disabled=true, ide.images.show.chessboard=true

Compose Animation Preview

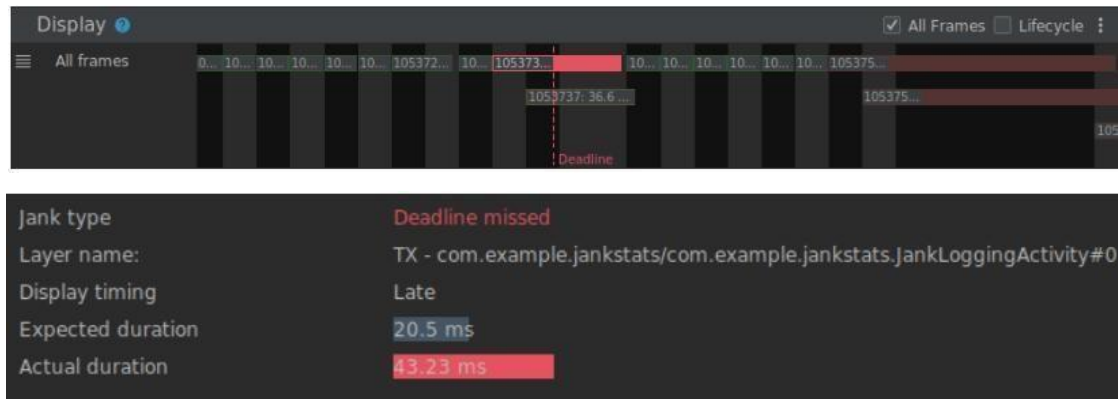
It is now possible for developers of Jetpack Compose to view and troubleshoot the animations they created using Compose using this formerly experimental capability. You can analyse the precise value of each animated value at a certain time, pause the animation, loop it, fast-forward it, or slow it down if it is specified in a composable preview. Comparing animations to their design specifications frame by frame can be extremely helpful.

`AnimatedVisibility` and `updateTransition` are presently supported by Compose Animation Preview. In the future, it will support more sorts of animation.



CPU Profiler

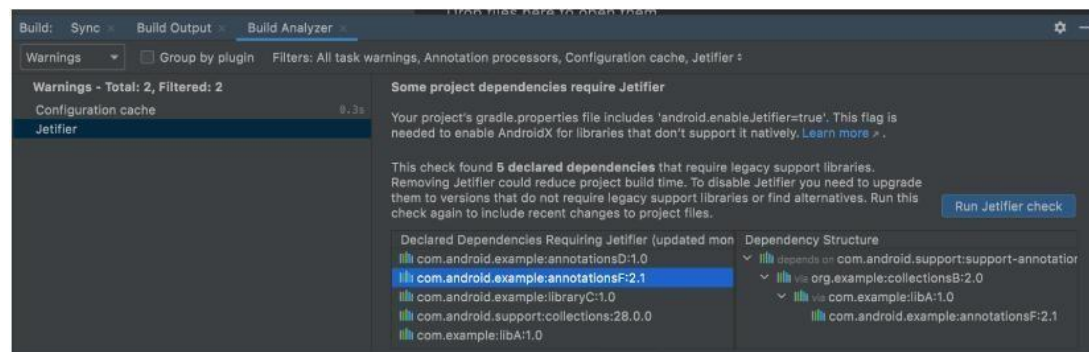
In order to help you identify the true reason of a jank, Android Studio Chipmunk now displays updated jank information, including jank types and projected and real deadlines. When using an Android emulator or a physical device with an API level of 31 (Android 12) or higher, you can access this jank information.



Build Analyzer: Check Jetifier

In Chipmunk, we've added a new Jetifier check to the Build Analyzer that will let you know if you can disable the Jetifier flag to speed up the build process.

The bulk of Android Studio projects still have the Jetifier flag enabled because it was created to automatically convert third-party libraries to use AndroidX. Turning the option off will normally reduce build times by 5–10%. However, the library ecosystem has largely switched to supporting AndroidX natively, so having the flag now typically adds unneeded build overhead.



2.4 System Configuration

ANDROID STUDIO 2021 CONFIGURATION AND SETUP

Android Studio 2021 can be downloaded from this website:

https://developer.android.com/studio?gclid=CjwKCAiAkfucBhBBEiwAFjbkr6J9eQf8KgT1WEqHghDKoowu4K8zsSfrj8vg59y5qoEvXbCb_ppSTxoCcTgQAvD_BwE&gclsrc=aw.ds

The wizards and templates offered by Android Studio allow you to select default settings such as an optimal default Android Virtual Device (AVD) emulation and up-to-date system images while also verifying your system requirements, including the Java Development Kit (JDK) and RAM availability. This page explains extra configuration options you could use to tailor how Android Studio works for you. Android Studio provides access to two configuration files through the **Help** menu:

- [studio.vmoptions](#): Customize options for Studio's Java Virtual Machine (JVM), such as heap size and cache size. Note that on Linux machines this file may be named studio64.vmoptions, depending on your version of Android Studio.
- [idea.properties](#): Customize Android Studio properties, such as the plugins folder path or maximum supported file size.

Find your configuration files

Both configuration files are stored in the configuration folder for Android Studio. The name of the folder depends on your Studio version. Here are the locations for Android Studio 4.1 and higher:

Windows:

Syntax: %APPDATA%\Google\<product><version>

Example:

C:\Users\YourUserName\AppData\Roaming\Google\AndroidStudio4.1

Customize your VM options

You can modify the JVM's parameters in Android Studio's `studio.vmoptions` file. The most frequent setting to change to boost Studio's speed is the maximum heap size, but you can also change other default values like the starting heap size, cache size, and Java garbage collection switches using the `studio.vmoptions` file.

To create a new `studio.vmoptions` file or to open your existing one, use the following steps:

Click Help > Edit Custom VM Options. If you have never edited VM options for Android Studio before, the IDE prompts you to create a new `studio.vmoptions` file. Click Yes to create the file.

The `studio.vmoptions` file opens in the editor window of Android Studio. Edit the file to add your own customized VM options. For a full list of customizable JVM options, see Oracle's [Java HotSpot VM Options](#) page.

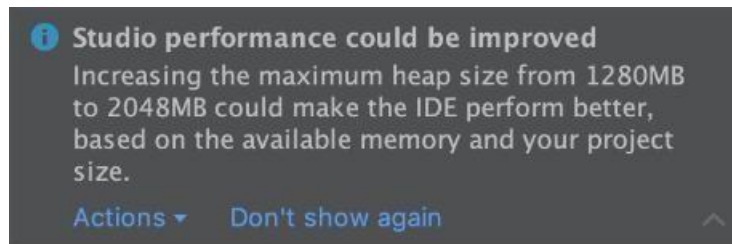
The `studio.vmoptions` file you create gets added to the default `studio.vmoptions` file, located in the `bin/` directory inside your Android Studio installation folder.

Note that you should never directly edit the `studio.vmoptions` file found inside the Android Studio program folder. While you can access the file to view Studio's default VM options, editing only your own `studio.vmoptions` file ensures that you don't override important default settings for Android Studio. Therefore, in your `studio.vmoptions` file, override only the attributes you care about and allow Android Studio to continue using default values for any attributes you have not changed.

Maximum heap size

The maximum heap size in Android Studio by default is 1280MB. The efficiency of Android Studio processes like the main IDE, Gradle daemon, and Kotlin daemon can be improved if you are working on a large project if your computer has a lot of RAM.

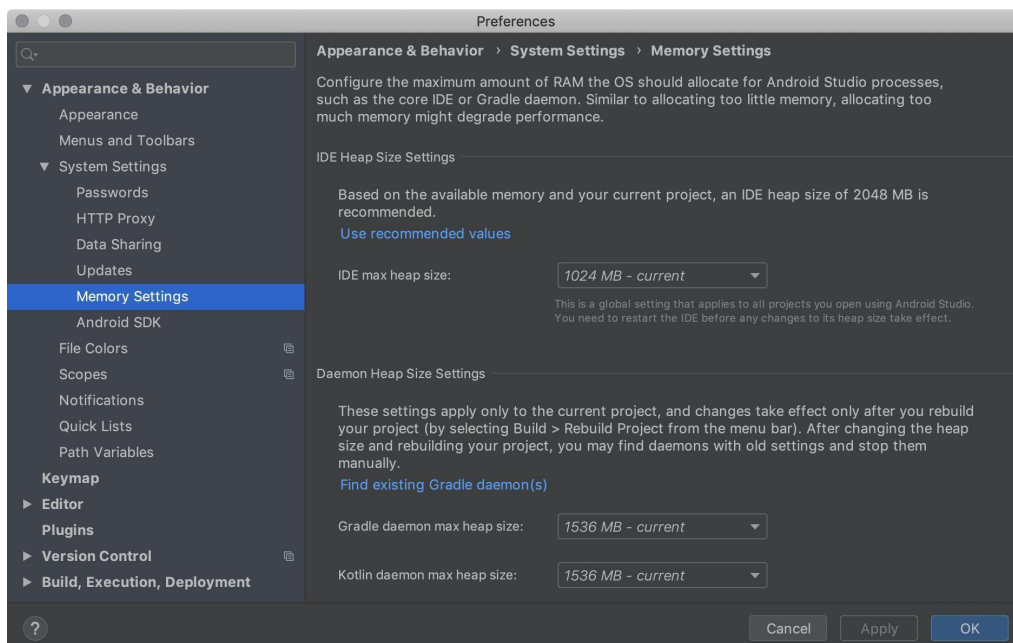
Android Studio automatically checks for possible heap size optimizations and notifies you if it detects that performance can be improved.



A notification about recommended memory settings.

If you use a 64-bit system that has at least 5 GB of RAM, you can also adjust the heap sizes for your project manually. To do so, follow these steps:

Click **File > Settings** from the menu bar (or **Android Studio > Preferences** on macOS).



Click **Appearance & Behavior > System Settings > Memory Settings**.

Adjust the heap sizes to match your desired amounts.

Click **Apply**.

If you changed the heap size for the IDE, you must restart Android Studio before the new memory settings are applied.

Export and import IDE settings

You can export a Settings.jar file that contains all or a subset of your preferred IDE settings for a project. You can then import the JAR file into your other projects and/or make the JAR file available to your colleagues to import into their projects.

Set the JDK version

A copy of the latest OpenJDK comes bundled with Android Studio 2.2 and higher, and this is the JDK version we recommend you use for your Android projects. To use the bundled JDK, do the following:

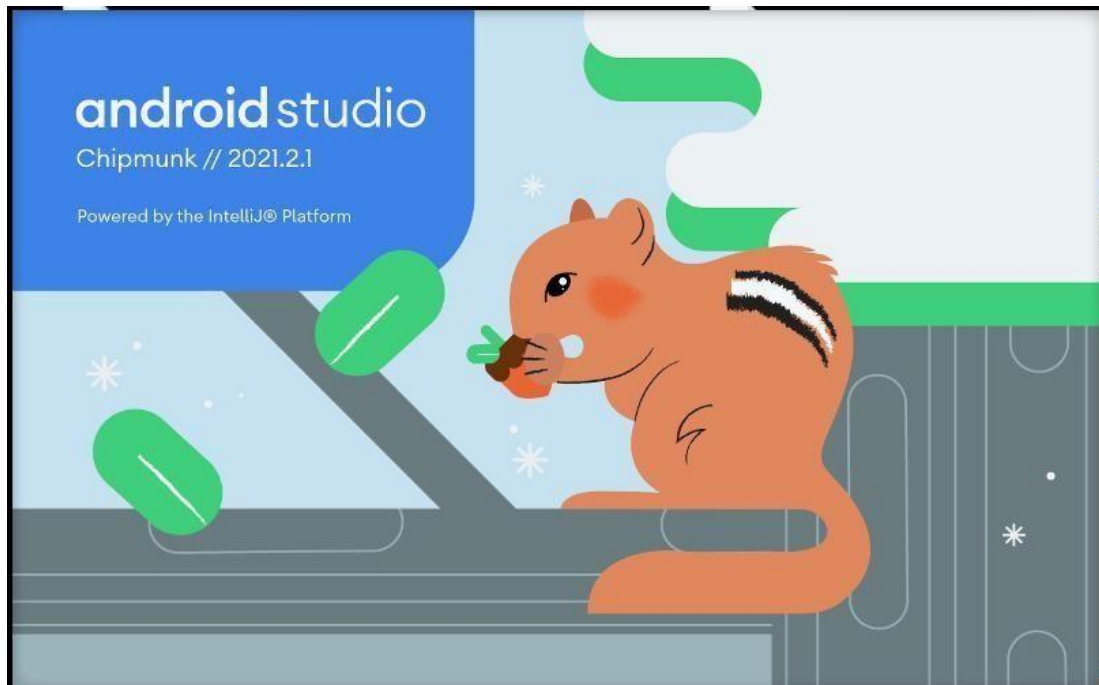
Open your project in Android Studio and select File > Settings... > Build, Execution, Deployment > Build Tools > Gradle (Android Studio > Preferences... > Build, Execution, Deployment > Build Tools > Gradle on a Mac).

Under Gradle JDK, choose the Embedded JDK option.

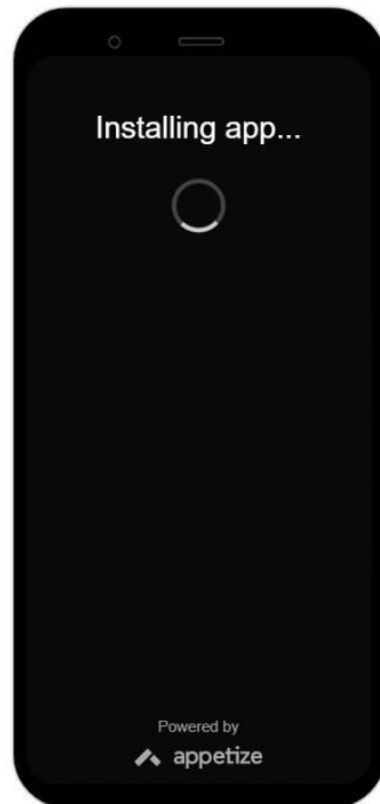
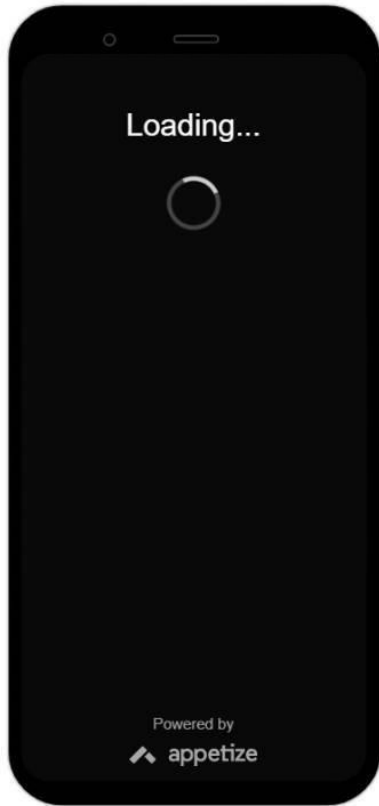
Click OK.

By default, the Java language version used to compile your project is based on your project's compileSdkVersion (because different versions of Android support different versions of Java). If necessary, you can override this default Java version by adding the following compileOptions block to your build.gradle file:

```
android
{
  compileOptions
  {
    sourceCompatibility
    JavaVersion.VERSION_1_6
    targetCompatibility
    JavaVersion.VERSION_1_6
  }
}
```

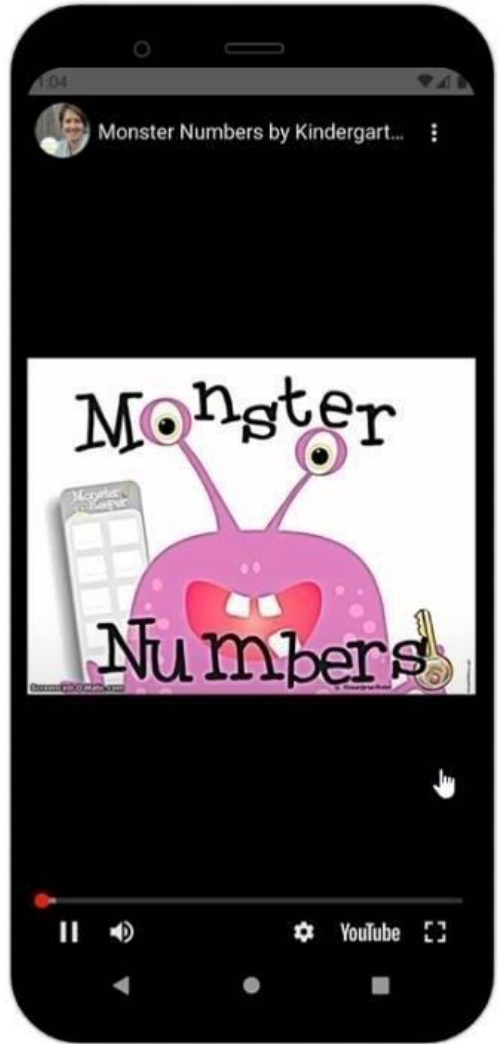


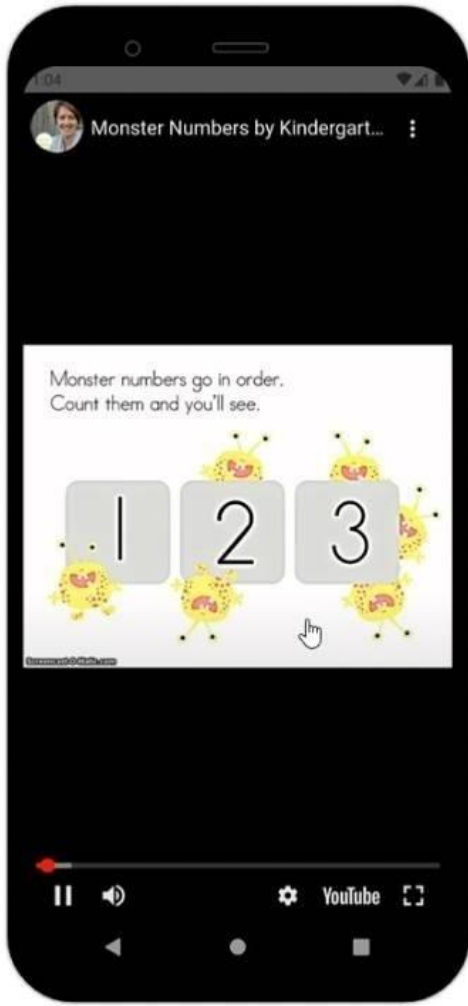
3.0 FINAL DESIGN

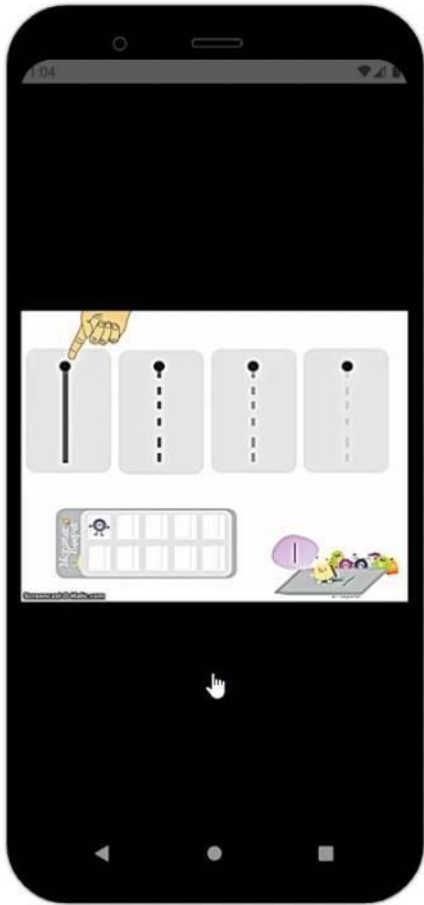






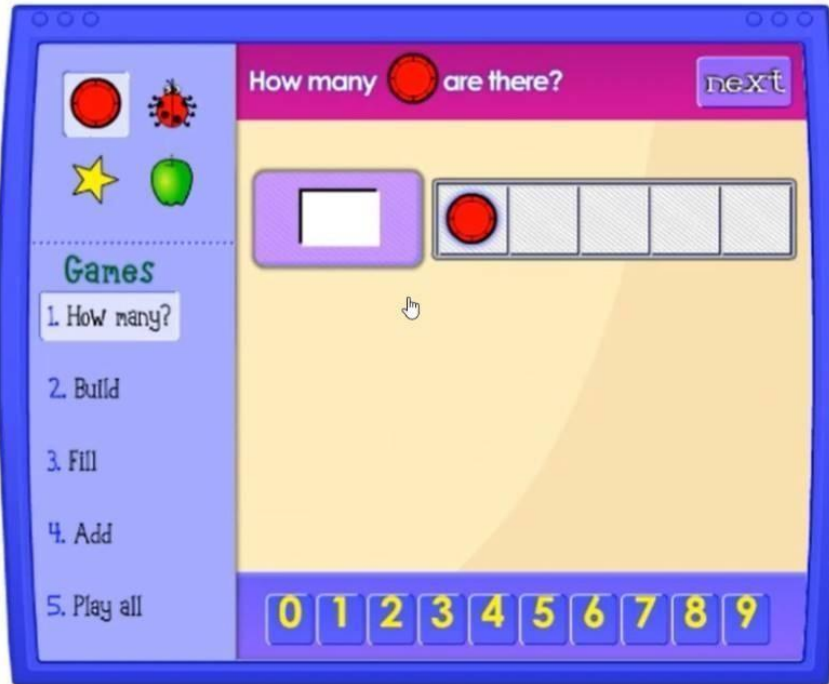








Activity



Activity

The screenshot shows a software interface for a math activity. At the top, a pink banner reads "Use frames to find $1 + 1$ " with a "next" button. Below this, a ten-frame contains one red dot in the first cell. A "Bank" box shows a stack of five blue chips and one chip, with the numbers "5" and "1" above them. A second ten-frame has a blue chip in the first cell, with a hand icon over it. Below the second ten-frame are the labels "Move 1" and a "Done" button. On the left, a sidebar lists "Games" with five options: "1. How many?" (with a yellow circle icon), "2. Build" (with a yellow circle icon), "3. Fill" (with a yellow circle icon), "4. Add" (with a white button), and "5. Play all". Above the sidebar are icons for a red circle, a ladybug, a yellow star, and a green apple.

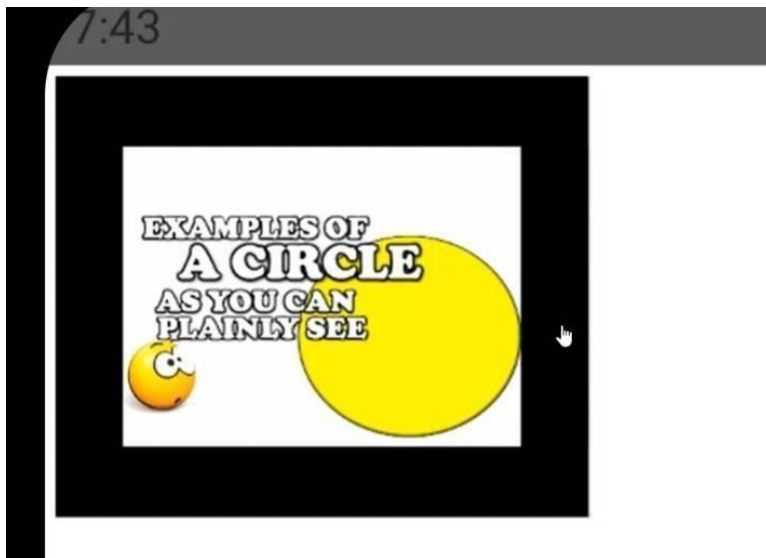
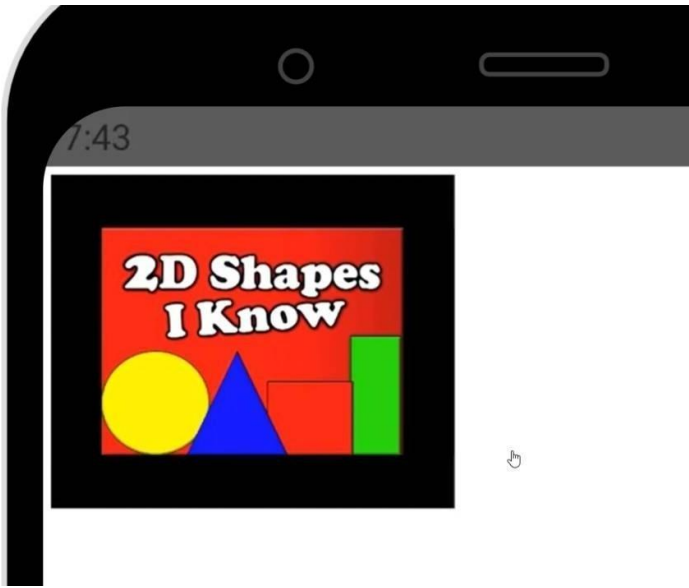








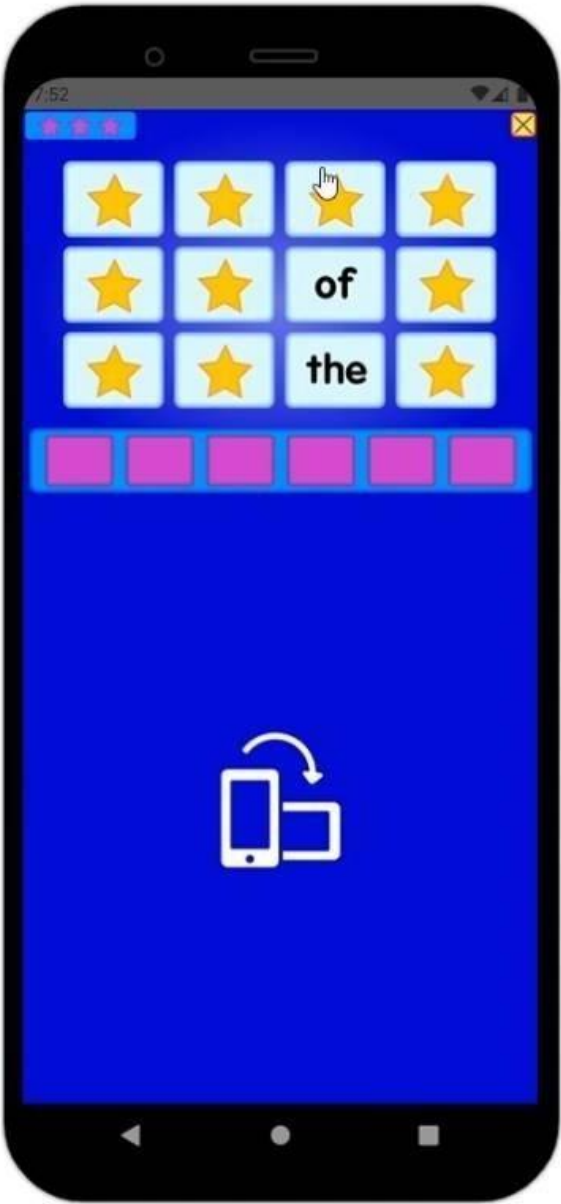


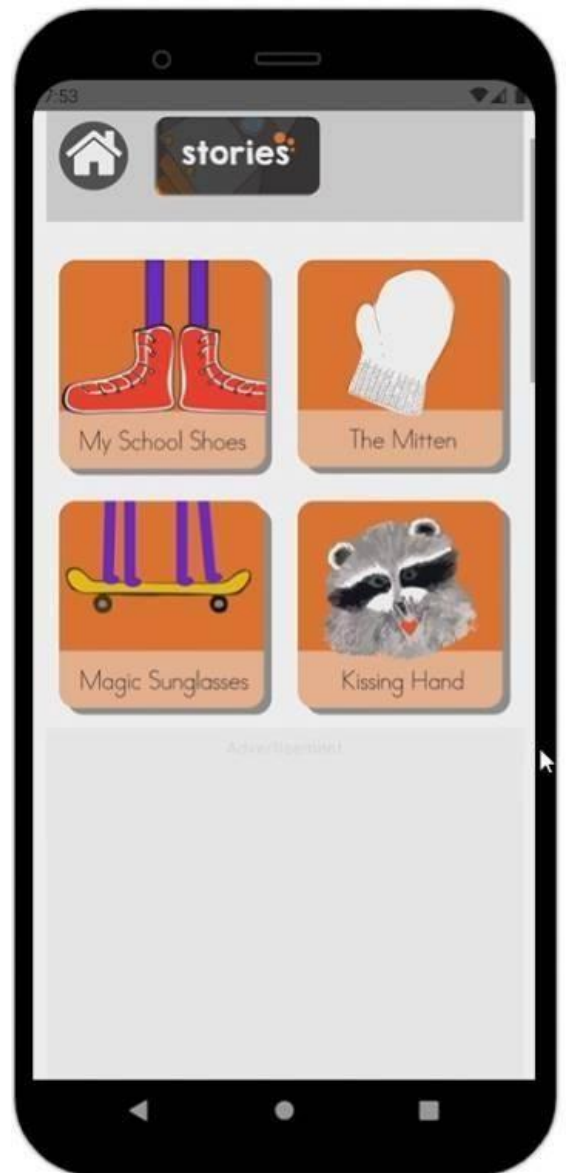


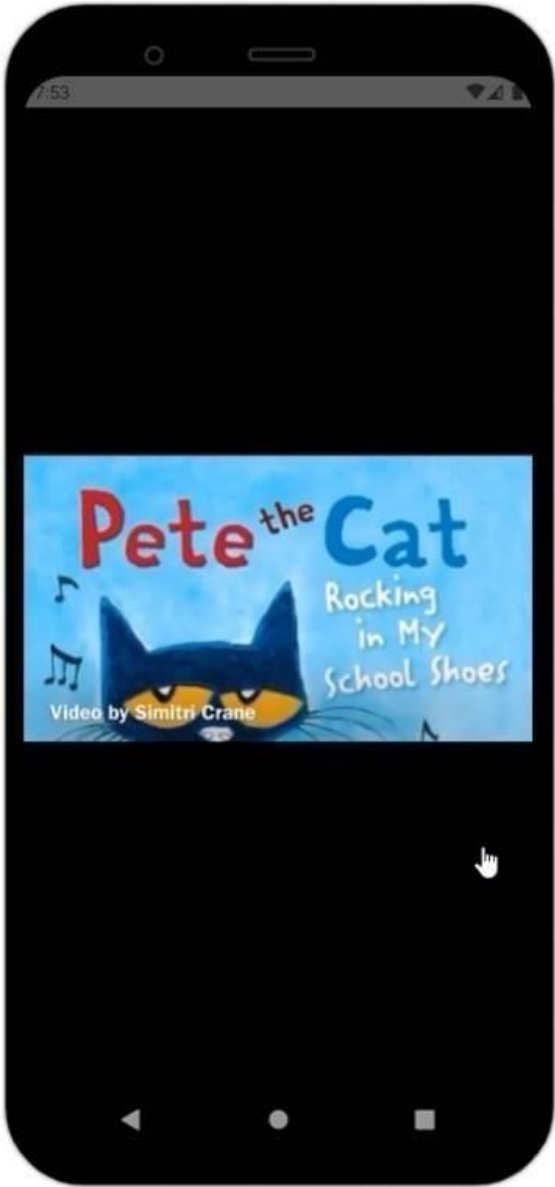












4.0 DISCUSSION

4.1 ADVANTAGES OF THE PROJECT

This Miko IQ Gaming Application is fully adjusted and designed to accommodate the needs of the Teachers and Students in Pusat Jagaan Graduan Ceria ,Simpang Ampat.

Additionally, this Miko IQ gaming application is reasonably priced. The Kindergarten was able to reduce the price by making significant financial savings. This is due to the fact that teachers must regularly purchase and print a tonne of learning materials (related to arithmetic) for the kids. The fact that this programme may be used by both students and teachers for free means that it saves a lot of money compared to printing and purchasing instructional materials.

Additionally, it is well established that online education, or e-learning, has a beneficial effect on education. As a result, using this programme enables users to improve their capacity for learning and apply acquired math skills. It helps one retain information for extended periods of time, which is another benefit.

Secondly, the consistency of instruction is improved by this Miko IQ gaming application. This is due to the fact that teachers in the traditional learning technique not only have a limited amount of time to teach their students, but are also prone to making mistakes. Therefore, by offering the kids standardised and consistent instruction, these problems are ensured to be resolved using this programme. With the help of our Miko IQ gaming application, teachers may deliver their lectures consistently and guarantee that every student learns the same amount of information.

5.0 LIMITATIONS OF PROJECT

The time required to finish the entire project is one of its drawbacks. This is due to the fact that we had just 14 weeks to finish the full project, which included the phases of analysis, design, development, implementation, and evaluation.

On the other side, we were able to access the database directly and view the PDF notes. For instance, users are unable to read PDF files once they have been uploaded to the database. Users can only access it as a result by surfing from their smartphone.

6.0 CONCLUSION

In conclusion, the goals set forth in the development of this Miko IQ gaming application have been achieved.

The creation of this application will support and assist students who struggle with especially mathematics by assisting and guiding them. It will open up new opportunities for teachers and parents to support these kids throughout their formative years. It is hoped that this project would succeed if it is able to achieve all of its objectives and address the issues raised before. That can help the children of slow learners develop more effectively.

At Pusat Jagaan Graduan Ceria in Simpang Ampat, this Miko IQ gaming application will be essential to improving both the students' and teachers' quality of instruction. The primary goal of this project is to create a mobile IQ game application for math. and get them used to using this programme where math learning resources are readily available. It is a cheap, effective, and cosy method for students to quickly retrieve notes. The execution of this initiative benefits teachers and students alike.

REFERENCE

- 1) Zoho Creator,(16 Dec 2021).Top 5 Best mobile app development – 2022 Review.
Retrieved 25 September 2022,
from<https://www.quicksprout.com/best-mobile-app-development-software/>
- 2) Girish R, Programmer for 17 yrs, Blogger at Techathlon.com, LifeHacker, DIYer. https://www.fingent.com/blog/top-technologies-used-to-develop-mobile-app/
- 3) Morrison, Gary R. Designing Effective Instruction, 6th Edition. John Wiley & Sons, 2010. Ed Forest: The ADDIE Model: Instructional Design, Educational Technology
https://en.wikipedia.org/wiki/ADDIE_Model
- 4) Carol Bainbridge, (05 August 2021). What Is The Typical kindergarten Curriculum. Retrieved 26 September 2022 from
<https://www.verywellfamily.com/typical-kindergarten-curriculum-1449039>