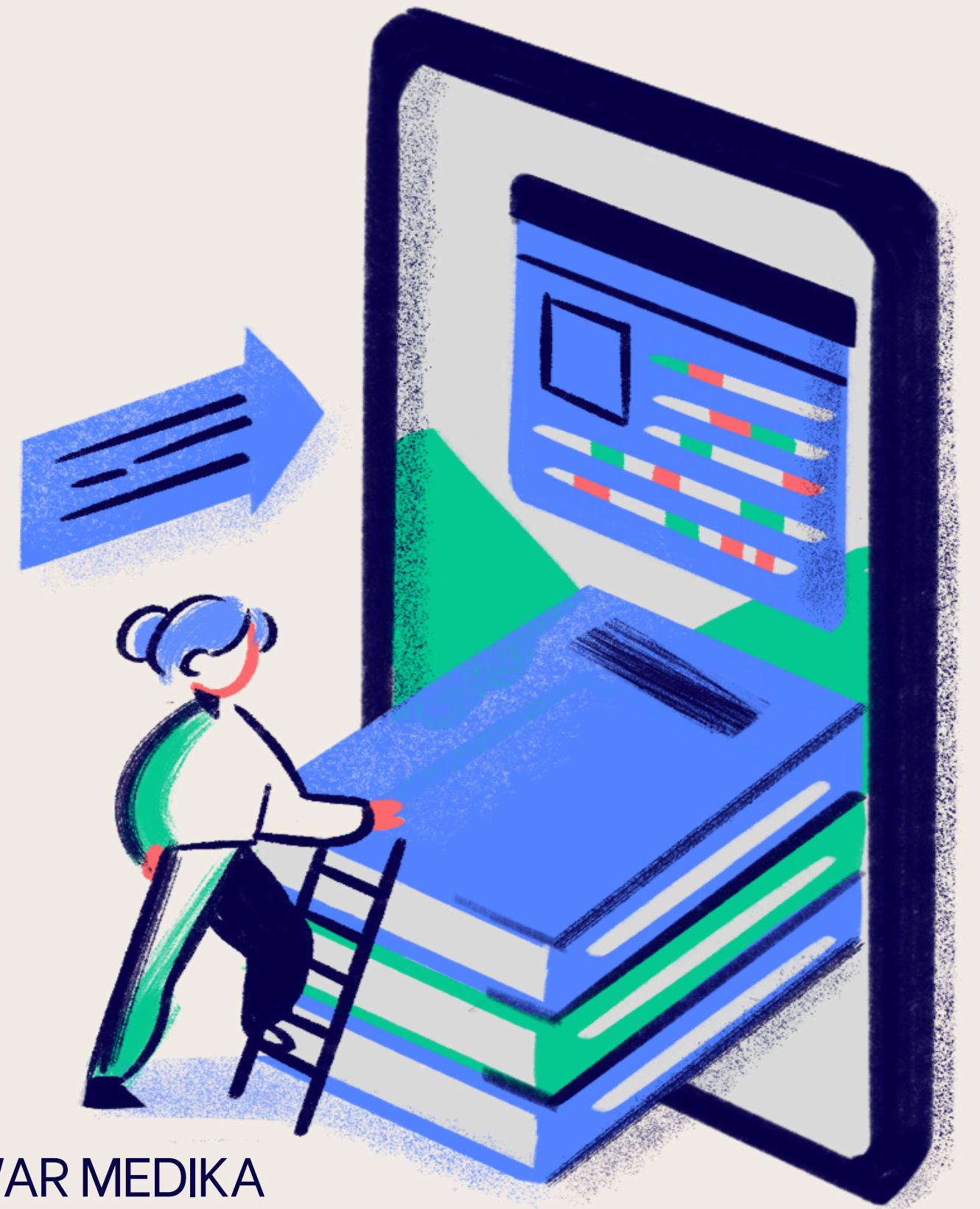


PEMROGRAMMAN MOBILE

Membuat game sederhana –
TANPA CODING

Putri Ariatna Alia, S.ST, M.T



DOSEN S1 REKAYASA PERANGKAT LUNAK – UNIVERSITAS ANWAR MEDIKA



GAME CATCH SEDERHANA

Kita akan membuat game sederhana dengan mengumpulkan score dengan cara tekan animasi yang ada di layar

Cara kerja =

1. Game akan di mulai ketika tombol start di tekan
2. Gambar akan bergerak random pada sumbu x dan y
3. Score didapat apabila pemain dapat menyentuh gambar
4. Waktu berjalan 60 detik
5. Game akan muncul notifikasi game over ketika waktu pada game berakhir dan score akhir akan muncul pada tampilan akhir

Algoritma Pada Catch Game

Ketika layar ditampilkan maka, waktu belum berjalan sebelum tombol start di tekan (clock 2)

Saat tombol start ditekan, buat gambar bergerak serta membuat durasi game berkurang sejalan dengan music game di nyalakan.

Clock 1 : format gambar berpindah pindah

Clock 2 : durasi waktu game bersamaan dengan jalankan musik game

Buat gambar bergerak random searah dengan sumbu x dan sumbu y

Ketika Gambar di sentuh, tambahkan 1 dan bersamaan tambahkan sound ketika gambar di tekan

Atur pada waktu game akan terus berkurang 1, dan setelah waktu habis dari 60 detik maka akan muncul notifikasi game over.

MEMBUAT APLIKASI KODULAR SEDERHANA – 1

https://creator.kodular.io/#5373827790929920

Creator

Free

Create new project

Give your new project a name

Latihansatuunesa

Cancel Next

Create project Import project Sort by: Date modified (latest first) v

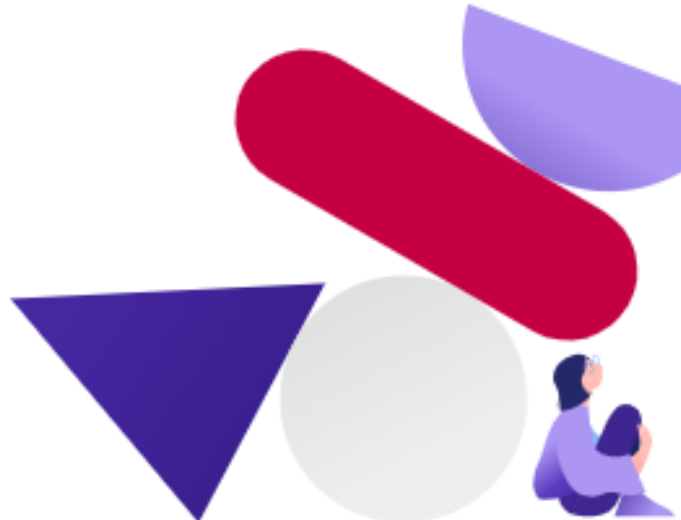
UNESA
Created: Mar 27, 2024, 1:45:40 PM
Modified: Apr 1, 2024, 11:23:08 AM

smktelkomsidoarjobarcode
Created: Nov 14, 2020, 2:24:37 PM
Modified: Mar 27, 2024, 1:43:19 PM

Beri nama Latihansatuunesa

Sesuaikan dengan kebutuhan VERSI ANDROID

Configure your project
These settings can be changed later



App Name
AnroidPutri

Theme
Default

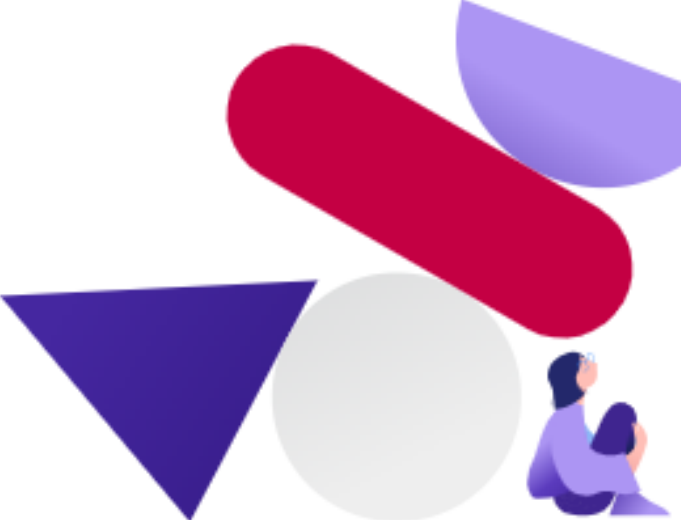
Minimum SDK Level
Android 5.0 - 5.0.2 (API 21)

Package Name

Primary Color
#3F51B5FF

Back Cancel Finish

Configure your project
These settings can be changed later



Minimum SDK Level
Android 5.0 - 5.0.2 (API 21)

- Android 5.0 - 5.0.2 (API 21)
- Android 5.1 - 5.1.1 (API 22)
- Android 6.0 - 6.0.1 (API 23)
- Android 7.0 (API 24)
- Android 7.1 - 7.1.2 (API 25)
- Android 8.0 (API 26)
- Android 8.1 (API 27)

Back Cancel Finish

sesuaikan dengan kebutuhan Aplikasi mau diterapkan di android versi berapa ?

Setting Tampilan Game (User Interface)

The image shows the Kodular Creator interface for a game titled "CATCH". The main view displays a mobile phone screen with a yellow background, a white rabbit character, a "START" button, and a timer showing "TIME : 60". The interface includes a Palette on the left with various components like Audio Picker, Camcorder, Camera, Image Picker, Metadata, OCR, Player, QR Code, Sound, Sound Recorder, Speech Recognizer, Text To Speech, Video Picker, Video Player, and Yandex Translate. The Designer view on the right shows a list of components: Screen1, Label1, Horizontal_Arrangem..., Label2, Label2_copy, Canvas1, Image_Sprite1, Button1, Clock1, Clock2, Notifier1, Player1, and Sound1. The Canvas1 Properties panel is open, showing settings for Background Color (#FEEA3BFF), Background Image (None), Font Size (14.0), Font Typeface (Default), Height (Fill parent), Width (Fill parent), Line Width (2.0), Paint Color (#000000FF), Text Alignment (Center : 1), and Visible (checked). Blue arrows point from the components in the Designer view to callout boxes on the right, indicating their source in the Palette. The callout boxes are: "Pallette → User interface → label", "Pallette → Layout → General → Horizontal Arrangement", "Pallette → Drawing Animation → Canvas", "Pallette → Drawing Animation → image_Sprite", "Pallette → User Interface → Button", "Pallette → Sensor → clock", "Pallette → User Interface → Notifier", "Pallette → Media → Player", and "Pallette → Media → Sound".

Callout boxes (from top to bottom):

- Pallette → User interface → label
- Pallette → Layout → General → Horizontal Arrangement
- Pallette → Drawing Animation → Canvas
- Pallette → Drawing Animation → image_Sprite
- Pallette → User Interface → Button
- Pallette → Sensor → clock
- Pallette → User Interface → Notifier
- Pallette → Media → Player
- Pallette → Media → Sound

Menambahkan Judul Pada Tampilan Awal GAME

User Interface → Label → CATCH

The image shows the Kotor Creator application interface. At the top, there's a navigation bar with 'Project', 'Test', 'Export', and 'Help' menus. Below that, the project name 'CATCH' is displayed along with actions like 'Screen1', 'Add Screen', 'Copy Screen', and 'Remove Screen'. The main workspace is divided into three sections: a 'Palette' on the left with various UI components like Button, Checkbox, and Label; a 'Viewer' in the center showing a mobile phone mockup of the game screen; and a 'Properties' panel on the right for the selected 'Label1' component. The phone screen has a yellow background with a white rabbit character, a 'START' button at the bottom, and a title 'CATCH' at the top with a timer 'TIME : 60' below it. The 'Label1 Properties' panel shows settings for background color (#FFFFFF00), font (Bold, Size 25, Typeface Default), text ('CATCH'), and text color (#000000FF).

Menambahkan Judul Pada Tampilan Awal GAME

Pallete → Layout → General → Horizontal Arrangement

The screenshot displays the Kodular Creator web interface. The browser address bar shows <https://creator.kodular.io/#5276733545644032>. The interface includes a top navigation bar with 'Creator', 'Project', 'Test', 'Export', and 'Help' menus. Below this, there are buttons for 'Screen1', 'Add Screen', 'Copy Screen', and 'Remove Screen'. The main workspace is divided into three sections: a 'Palette' on the left with various layout and widget options, a 'Viewer' in the center showing a mobile phone mockup, and a 'Properties' panel on the right.

The 'Viewer' shows a mobile phone screen with a yellow background. At the top, the word 'CATCH' is displayed in a blue bar, and below it, 'TIME : 60' is shown in a white box. A small white rabbit character is positioned in the center, and a 'START' button is at the bottom. A blue callout box with an arrow points to the 'TIME : 60' label, containing the text 'Pallete → User interface → label'.

The 'Properties' panel on the right is titled 'Horizontal_Arrangement1 Properties'. It includes sections for 'Common properties' (Align Horizontal, Align Vertical, Background Color), 'Clickable' (checkbox), 'Height' and 'Width' (Automatic), 'Image' (None), and 'Use Round Card' (checkbox). The 'Visible' checkbox is checked.

Membuat Area Pada Game

Pallette → Drawing Animation → Canvas

The screenshot displays the Kodular Creator web interface. The browser address bar shows the URL <https://creator.kodular.io/#5276733545644032>. The interface is divided into several sections:

- Top Bar:** Includes the 'Creator' logo, navigation tabs for 'Project', 'Test', 'Export', and 'Help', and a 'Free' label.
- Project Bar:** Shows the project name 'CATCH' and actions like 'Screen1', 'Add Screen', 'Copy Screen', and 'Remove Screen'.
- Left Panel (Palette):** Lists various components such as 'Ball', 'Canvas', 'Image Editor', 'Image Sprite', and 'Lottie'.
- Center (Viewer):** Displays a mobile phone screen with a yellow background. The screen shows the text 'CATCH' and 'TIME : 60' at the top, a white rabbit character in the center, and a 'START' button at the bottom. A blue circle highlights the central area of the screen.
- Right Panel (Properties):** Shows the 'Canvas1 Properties' panel with various settings like 'Background Color' (#FEEA3BFF), 'Font Size' (14.0), and 'Text Alignment' (Center : 1).

Memasukkan Animasi pada Game

Pallette → Drawing Animation → Image Sprite

The image shows the Kodular Creator web interface. The browser address bar displays <https://creator.kodular.io/#5276733545644032>. The interface includes a top navigation bar with 'Project', 'Test', 'Export', and 'Help' options. Below this, there are buttons for 'Screen1', 'Add Screen', 'Copy Screen', and 'Remove Screen'. The main workspace is divided into three sections:

- Palette:** A vertical list of components including Ball, Canvas, Image Editor, Image Sprite, and Lottie. The 'Image Sprite' component is highlighted.
- Viewer:** A central area showing a mobile phone screen. The screen displays a game titled 'CATCH' with a timer 'TIME : 60' and a 'START' button at the bottom. A white rabbit character is positioned on the screen, and a small square is to its right. A blue circle highlights the rabbit character.
- Properties Panel:** A panel on the right side showing the properties for the selected 'Canvas1' component. It includes sections for 'Common properties', 'Background Color' (set to #FEEA3BFF), 'Background Image' (set to None), 'Font Size' (set to 14.0), 'Font Typeface' (set to Default), 'Height' (set to Fill parent), 'Width' (set to Fill parent), 'Line Width' (set to 2.0), 'Paint Color' (set to #000000FF), 'Text Alignment' (set to Center : 1), and a checked 'Visible' checkbox.

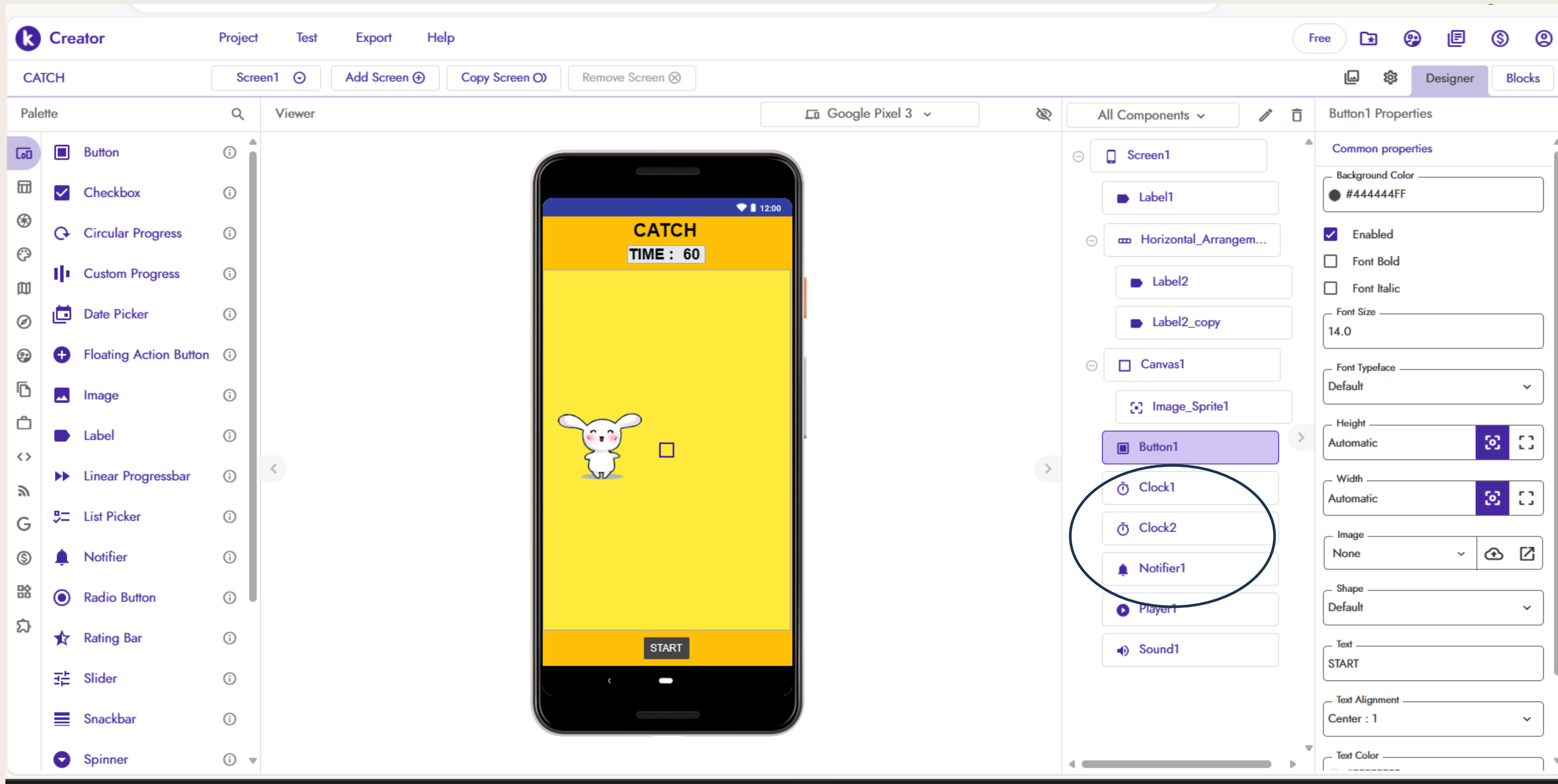
Membuat tombol start untuk memulai GAME

Palette → User Interface → Button

The image shows the Kotor Creator application interface. At the top, there's a navigation bar with 'Project', 'Test', 'Export', and 'Help' options. Below that, a toolbar contains 'Screen1', 'Add Screen', 'Copy Screen', and 'Remove Screen' buttons. The main workspace is divided into three sections: a 'Palette' on the left with various UI components like Button, Checkbox, and Slider; a 'Viewer' in the center displaying a mobile phone screen with a yellow background, a 'CATCH' title, 'TIME : 60', a cartoon rabbit character, and a 'START' button at the bottom; and a 'Properties' panel on the right for 'Button1'. The 'Properties' panel includes 'Common properties' such as Background Color (#444444FF), Enabled status, Font settings, and Dimensions (Automatic).

Tambahkan Clock dan Notifier apabila GAME sudah berakhir

Pallette → Sensor → Clock & Pallette → User Interface → Notifier



Masukkan music selama game berlangsung

Pallete → Media → Player

The screenshot displays the Kotor Creator application interface. At the top, the 'Creator' logo is visible, along with navigation tabs for 'Project', 'Test', 'Export', and 'Help'. Below this, the project name 'CATCH' is shown, with options to 'Add Screen', 'Copy Screen', and 'Remove Screen'. The main workspace is divided into three sections: a 'Palette' on the left, a 'Viewer' in the center, and a 'Properties' panel on the right.

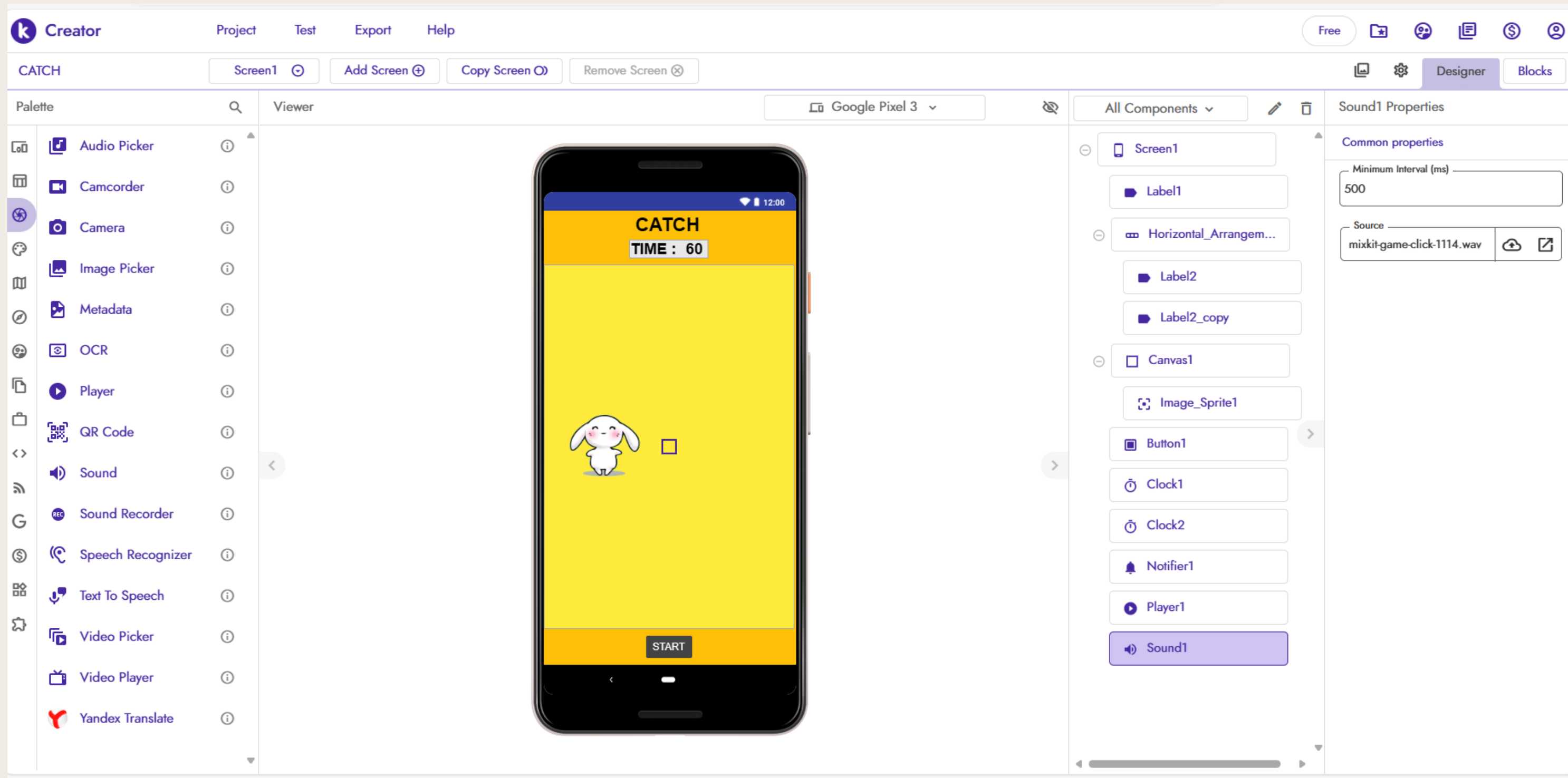
The 'Palette' lists various components, including 'Audio Picker', 'Camcorder', 'Camera', 'Image Picker', 'Metadata', 'OCR', 'Player', 'QR Code', 'Sound', 'Sound Recorder', 'Speech Recognizer', 'Text To Speech', 'Video Picker', 'Video Player', and 'Yandex Translate'. The 'Player' component is highlighted.

The 'Viewer' shows a mobile phone screen with a yellow background. The screen displays the text 'CATCH' and 'TIME : 60' at the top, a cartoon rabbit character in the center, and a 'START' button at the bottom.

The 'Properties' panel on the right shows the 'Player1 Properties' for the selected 'Player1' component. It includes 'Common properties' such as 'Loop' and 'Play Only In Foreground', a 'Source' field with the value 'First-Snow-Free', and a 'Volume' field set to '50'.

Masukkan music ketika animasi di tekan dan mendapat score

Pallete → Media → Player

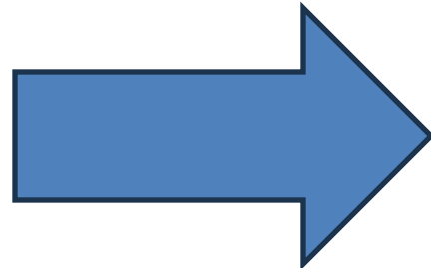


Logika Pada Controlling Game

Ketika layar ditampilkan maka, waktu belum berjalan sebelum tombol start di tekan (clock 2)



Saat tombol start ditekan, buat gambar bergerak serta membuat durasi game berkurang sejalan dengan music game di nyalakan.



Clock 1 : format gambar berpindah pindah
Clock 2 : durasi waktu game bersamaan dengan jalankan musik game

Buat gambar bergerak random searah dengan sumbu x dan sumbu y



Ketika Gambar di sentuh, tambahkan 1 dan bersamaan tambahkan sound ketika gambar di tekan



Atur pada waktu game akan terus berkurang 1, dan setelah waktu habis dari 60 detik maka akan muncul notifikasi game over.



Ketika screen berjalan, set clock 2 agar durasi game tidak mulai otomatis

saat tombol start ditekan, kita set
Agar clock 1 dan 2 set True agar clock 1 dan 2 mulai berjalan
Clock 1 : format gambar berpindah pindah
Clock 2 : durasi waktu game bersamaan dengan jalankan musik game

Ketika clock 1 berjalan panggil gambar / animasi bergerak searah dengan sumbu x dan sumbu y berisikan bilangan random

Ketika Gambar di sentuh, tambahkan 1 nilai score yg awalnya 0 dan bersamaan tambahkan sound ketika gambar di tekan

Atur pada kondisi clock 2 yang merupakan waktu durasi game, jika durasi waktu tidak = 0 , maka kurangkan 1 , jika sdh habis 60 detik maka akan muncul notifikasi game over.

Logika Pada Controlling Game

Ketika screen berjalan, set clock 2 agar durasi game tidak mulai otomatis



Block pertama : inialisasi
puzzle = 0

saat tombol start ditekan, kita set
Agar clock 1 dan 2 set True agar clock 1 dan 2 mulai berjalan
Clock 1 : format gambar berpindah pindah
Clock 2 : durasi waktu game bersamaan dengan jalankan musik game



Block Kedua

Ketika clock 1 berjalan panggil gambar / animasi bergerak searah dengan sumbu x dan sumbu y berisikan bilangan random



Block Ketiga

Ketika Gambar di sentuh, tambahkan 1 nilai score yg awalnya 0 dan bersamaan tambahkan sound ketika gambar di tekan



Block Keempat

Atur pada kondisi clock 2 yang merupakan waktu durasi game, jika durasi waktu tidak = 0 , maka kurangkan 1 , jika sdh habis 60 detik maka akan muncul notifikasi game over.



Block Kelima

Setting Kontrol Game (Back End)

The image displays five numbered blue circles (1-5) corresponding to five distinct Scratch code blocks that manage the game's back-end logic:

- 1:** Initialization code. It sets the global variable `SCORE` to `0` and disables `Clock2` when `Screen1` initializes.
- 2:** Button click event. When `Button1` is clicked, it enables both `Clock1` and `Clock2`, and calls `Player1` to start.
- 3:** Timer event for `Clock1`. It moves `Image_Sprite1` to a random position, with the x-coordinate between `1` and `500` and the y-coordinate between `2` and `1000`.
- 4:** Touch event for `Image_Sprite1`. When touched, it increments the global `SCORE` by `1` and plays `Sound1`.
- 5:** Timer event for `Clock2`. It checks if `Label2_copy` text is not `0`. If true, it decrements the text by `1`. If false (reaching `0`), it disables both clocks, stops `Player1`, and shows a "GAME OVER" message dialog with the current score and an "OKE" button.

Block 1 Ketika screen berjalan, set clock 2 agar durasi game tidak mulai otomatis

```
initialize global SCORE to 0
when Screen1 .Initialize
do set Clock2 . Timer Enabled to false
```

Set variable → Initialize global name → tambahkan text untuk memberi nilai 0

Screen berjalan sebelum klik start clock 2 tidak mulai otomatis

Blocks

- Built-in
- Control
- Logic
- Math
- Text
- Lists
- Dictionaries
- Colors
- Variables
- Procedures

Viewer

```
initialize global name to
get
set to
initialize local name to
in
initialize local name to
in
```

Blocks

- Built-in
- Control
- Logic
- Math
- Text
- Lists
- Dictionaries
- Colors
- Variables
- Procedures
- Screen1

Viewer

```
when Screen1 .Back Pressed
do

when Screen1 .Error Occurred
component function Name error Number message
do

when Screen1 .Got Received Shared
type value
do

when Screen1 .Initialize
do

when Screen1 .Keyboard Visibility Changed
is Keyboard Visible
do

when Screen1 .Menu Initialize
do
```

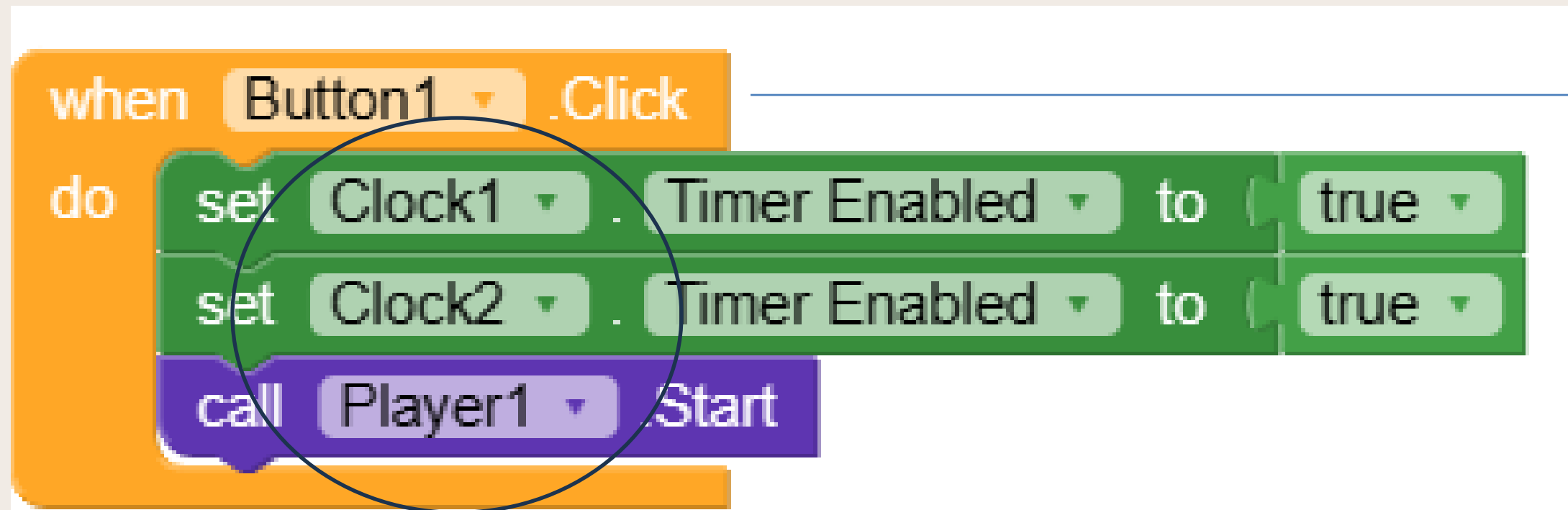
Block 2

Saat tombol start ditekan, kita set

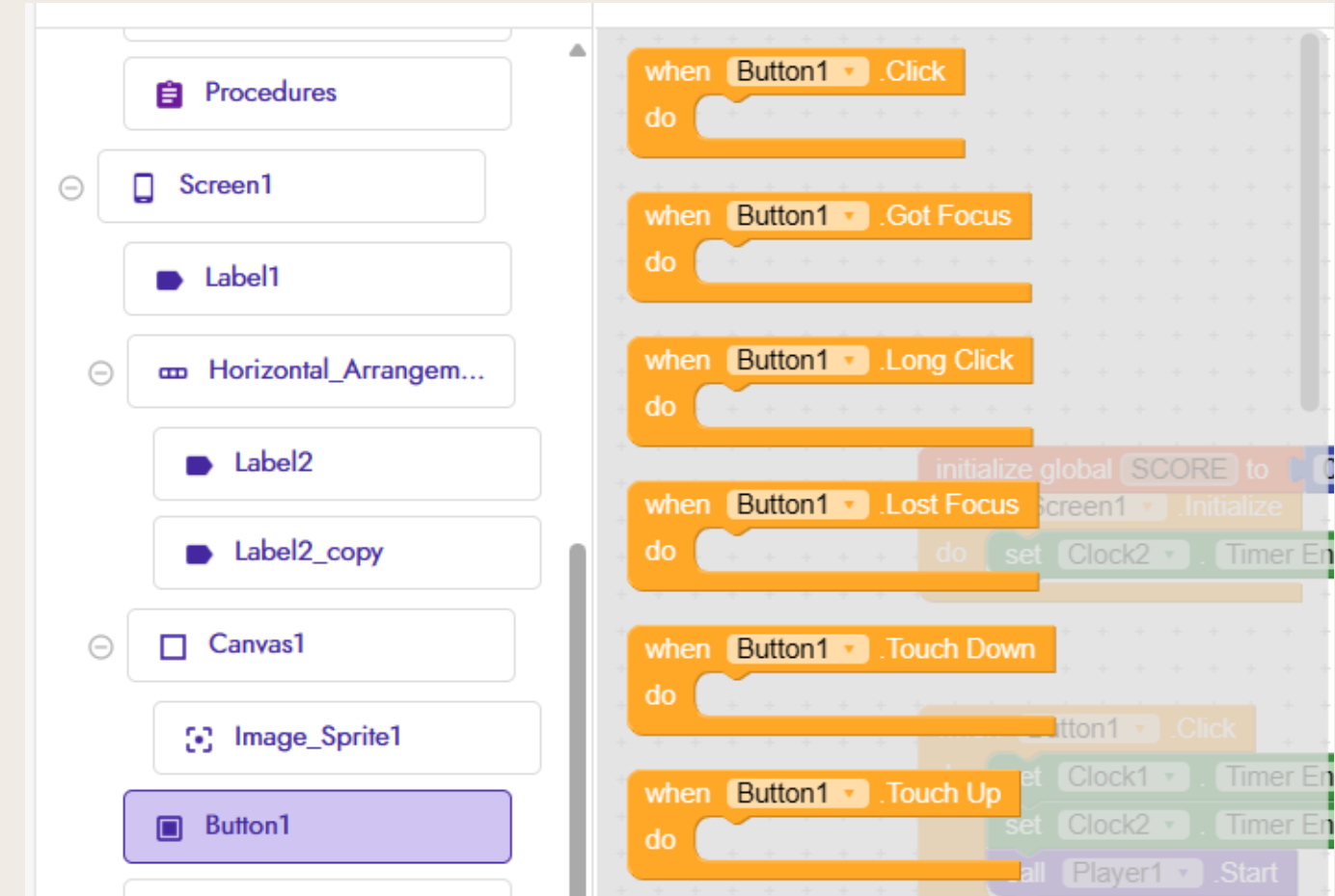
Agar clock 1 dan 2 set True agar clock 1 dan 2 mulai berjalan

Clock 1 : format gambar berpindah pindah

Clock 2 : durasi waktu game bersamaan dengan jalankan musik game



```
when Button1 .Click
do
  set Clock1 .Timer Enabled to true
  set Clock2 .Timer Enabled to true
  call Player1 .Start
```



The screenshot shows the Scratch IDE interface. On the left, the 'Procedures' palette is visible. The main workspace shows a 'Screen1' object with several child objects: 'Label1', 'Horizontal_Arrangem...', 'Label2', 'Label2_copy', 'Canvas1', 'Image_Sprite1', and 'Button1'. On the right, the 'Scripts' area shows a list of event-driven code blocks for 'Button1', including 'Click', 'Got Focus', 'Long Click', 'Lost Focus', 'Touch Down', and 'Touch Up'. The 'Click' event block is highlighted, showing the same code as in the previous block.

Ambil sesuai dengan pilihan yg ada di pallete

Block 3

Ketika clock 1 berjalan panggil gambar / animasi bergerak searah dengan sumbu x dan sumbu y berisikan bilangan random

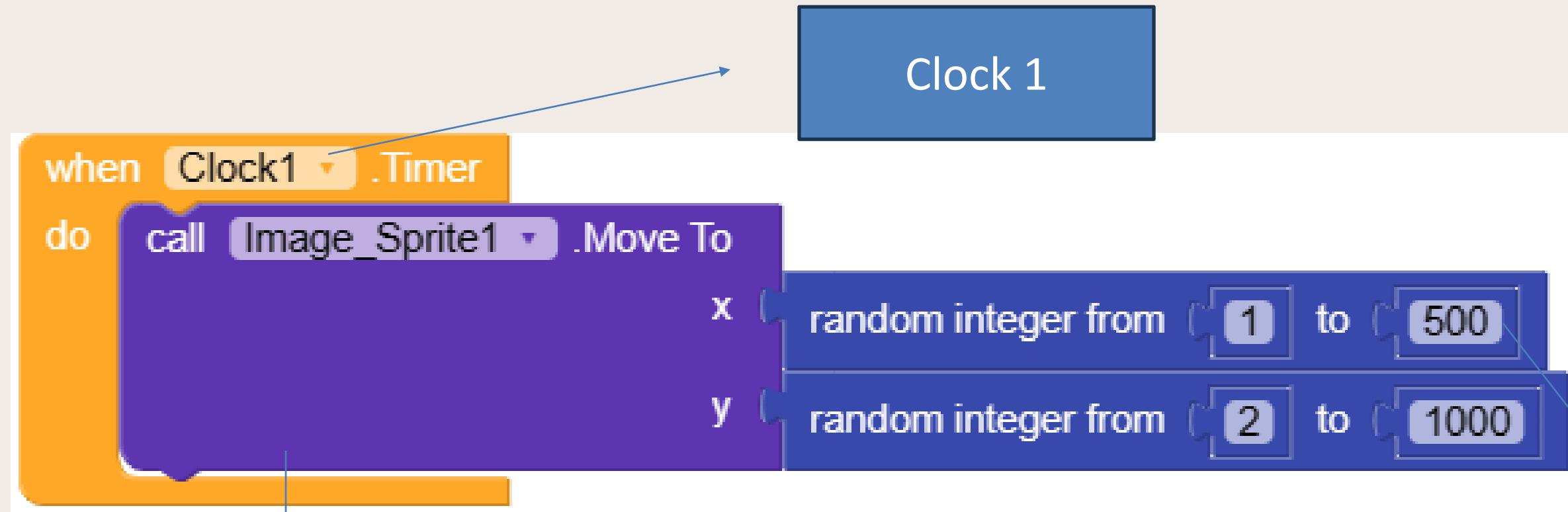
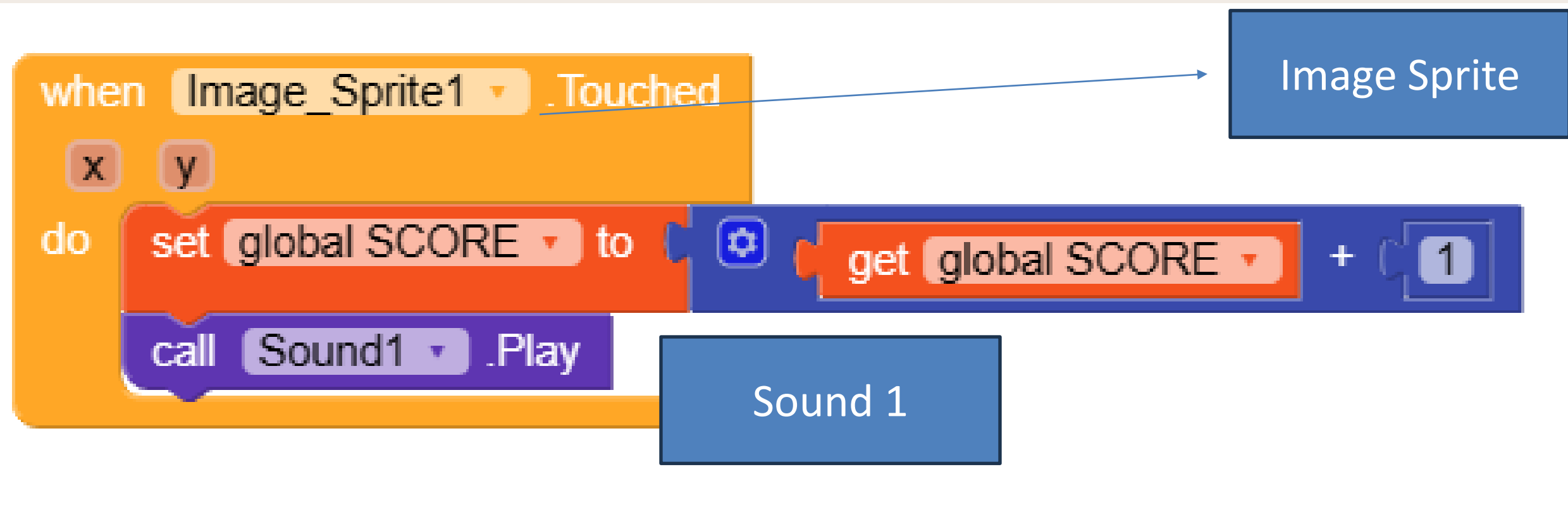


Image Sprite

The screenshot shows the Scratch interface. On the left, the 'Blocks' panel is visible with the 'Math' category selected. On the right, the 'Viewer' panel shows a 'random integer from 1 to 100' block. The 'Viewer' panel also shows other blocks like 'bitwise and' and a 'random integer from 1 to 100' block.

Block 4

Ketika Gambar di sentuh, tambahkan 1 nilai score yg awalnya 0 dan bersamaan tambahkan sound ketika gambar di tekan



Block 5

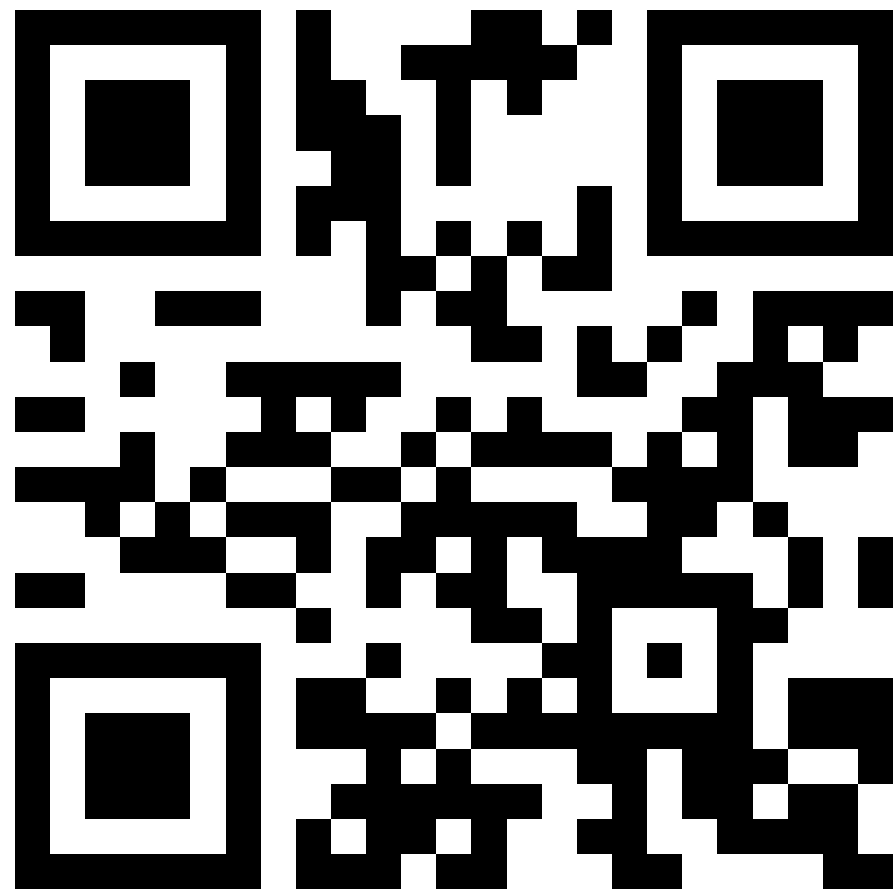
Atur pada kondisi clock 2 yang merupakan waktu durasi game, jika durasi waktu tidak = 0 , maka kurangkan 1 , jika sdh habis 60 detik maka akan muncul notifikasi game over.

```
when Clock2 .Timer
do
  if Label2_copy .Text ≠ 0
  then
    set Label2_copy .Text to Label2_copy .Text - 1
  else
    set Label2_copy .Text to 60
    set Clock2 .Timer Enabled to false
    set Clock1 .Timer Enabled to false
    call Player1 .Stop
    call Notifier1 .Show Message Dialog
      message join " SCORE "
      get global SCORE
      title " GAME OVER "
      button Text " OKE "
```

The image shows a Scratch script for a game timer. It starts with a 'when Clock2 .Timer' event. Inside a 'do' block, there is an 'if' statement. The 'if' condition is 'Label2_copy .Text ≠ 0'. If true, it sets 'Label2_copy .Text' to 'Label2_copy .Text - 1'. If false, it sets 'Label2_copy .Text' to 60, sets 'Clock2 .Timer Enabled' to false, sets 'Clock1 .Timer Enabled' to false, calls 'Player1 .Stop', and calls 'Notifier1 .Show Message Dialog'. The message dialog has a 'message' field with a 'join' block containing '" SCORE "' and 'get global SCORE'. The 'title' field contains '" GAME OVER "' and the 'button Text' field contains '" OKE "'.

Scan Barcode di bawah ini untuk test aplikasi di kodular companion

Connect to Companion



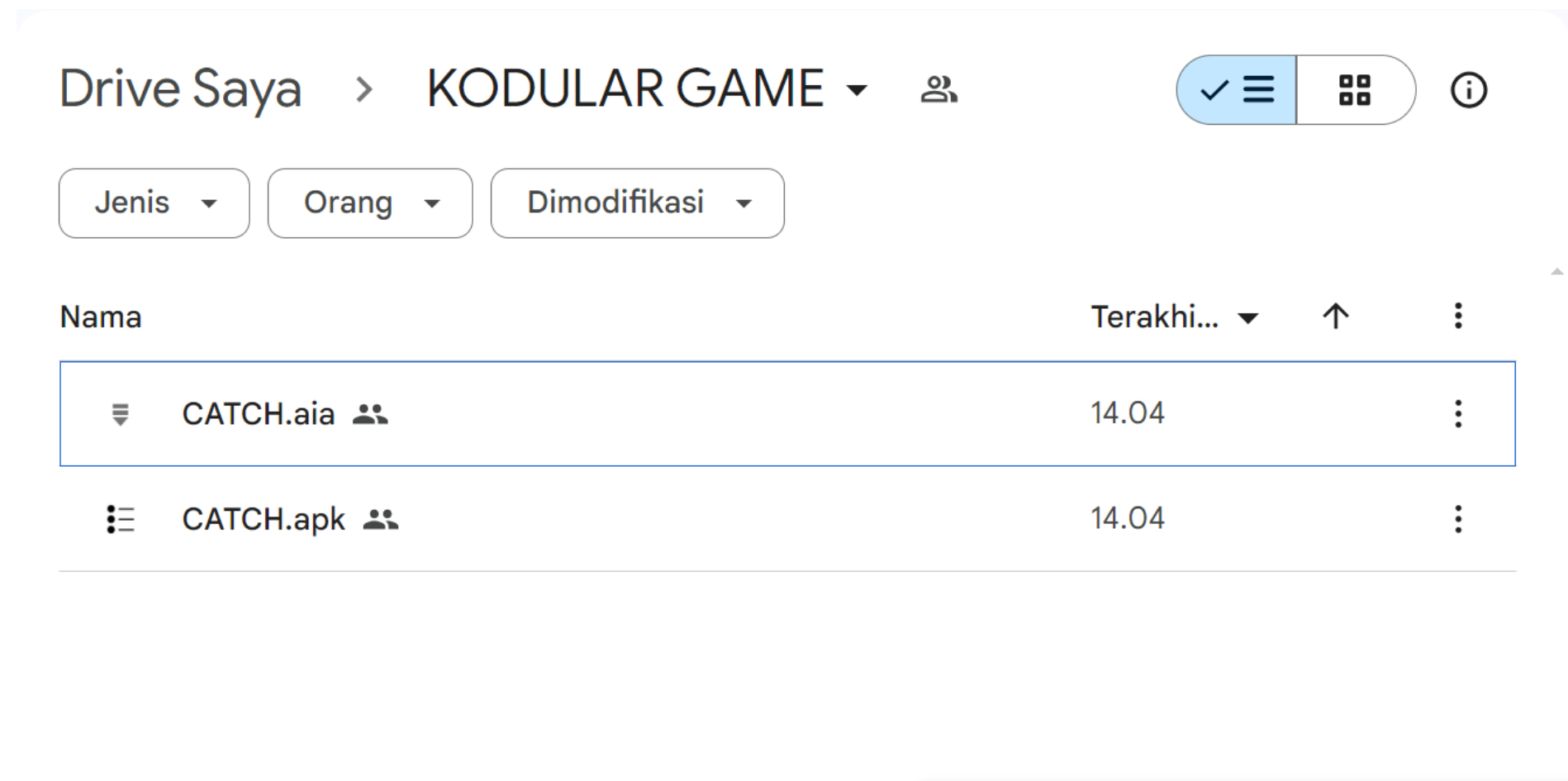
Your code is:

cntbge

Cancel

Copy Link Gdrive dibawah ini untuk file mentah format .aia & .apk

https://drive.google.com/drive/folders/1-rYUkCORKXTrQgMCFn03u4qIVbtWZi_T?usp=drive_link



PRESENTED BY PUTRI ARIATNA ALIA

THANK YOU VERY MUCH!



DOSEN S1 REKAYASA PERANGKAT LUNAK – UNIVERSITAS ANWAR MEDIKA