

LAMPIRAN**Kuesioner Pre-test**

1. Apakah Anda sudah pernah mendapatkan pendidikan tentang Aksara Jawa sebelumnya?
 - a. Belum pernah
 - b. Sudah pernah
2. Apakah menurut Anda Aksara Jawa penting untuk dipelajari?
 - a. Tidak penting
 - b. Biasa saja
 - c. Penting
 - d. Sangat penting
3. Apakah Aksara Jawa susah untuk dikuasai?
 - a. Sangat susah
 - b. Susah
 - c. Biasa saja
 - d. Mudah
 - e. Sangat mudah
4. Apa yang membuat Aksara Jawa susah untuk dikuasai?

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5. Apakah penjelasan dari guru di sekolah sudah cukup untuk mempelajari Aksara Jawa?
 - a. Sangat kurang
 - b. Kurang
 - c. Cukup
 - d. Lebih dari cukup
6. Apakah Anda suka bermain games?
 - a. Sangat tidak suka
 - b. Tidak suka

- c. Biasa saja
 - d. Suka
 - e. Sangat suka
7. Apakah sebelumnya sudah pernah mendengar / memainkan game bertema Aksara Jawa?
- a. Belum pernah
 - b. Sudah pernah
8. Apakah menurut Anda pembelajaran tentang Aksara Jawa mungkin untuk dimasukkan ke dalam suatu game?
- a. Sangat tidak mungkin
 - b. Tidak mungkin
 - c. Mungkin
 - d. Sangat mungkin
9. Konten apa saja yang harus dimiliki oleh game bertema Aksara Jawa agar dapat menjadi game Aksara Jawa yang baik?

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Kuesioner post-test

1. Apakah game “Belajar Hanacaraka” menarik untuk dimainkan?
- a. Sangat tidak menarik
 - b. Tidak menarik
 - c. Biasa saja
 - d. Menarik
 - e. Sangat menarik
2. Apakah game “Belajar Hanacaraka” mudah untuk dimainkan?
- a. Sangat susah
 - b. Susah
 - c. Biasa saja
 - d. Mudah

- e. Sangat mudah
- 3 Apakah Anda sudah pernah menemukan game yang hampir sama dengan game “Belajar Hanacaraka”?
 - a. Belum pernah
 - b. Sudah pernah
- 4 Apakah penjelasan dari game “Belajar Hanacaraka” sudah cukup jelas?
 - a. Sangat kurang
 - b. Kurang
 - c. Cukup
 - d. Lebih dari cukup
- 5 Apakah game “Belajar Hanacaraka” sudah cukup membantu untuk belajar Aksara Jawa?
 - a. Sangat kurang
 - b. Kurang
 - c. Cukup
 - d. Lebih dari cukup
- 6 Bagian game manakah yang menurut Anda menarik?
 - a. Belajar + Puzzle
 - b. Memory Match
 - c. Tangkap Air
- 7 Bagian game manakah yang menurut Anda dapat membantu untuk belajar Aksara Jawa?
 - a. Belajar + Puzzle
 - b. Memory Match
 - c. Tangkap Air
- 8 Konten apa saja yang perlu ditambahkan pada game “Belajar Hanacaraka” agar menjadi game Aksara Jawa yang lebih baik lagi?
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Eventsheet Game

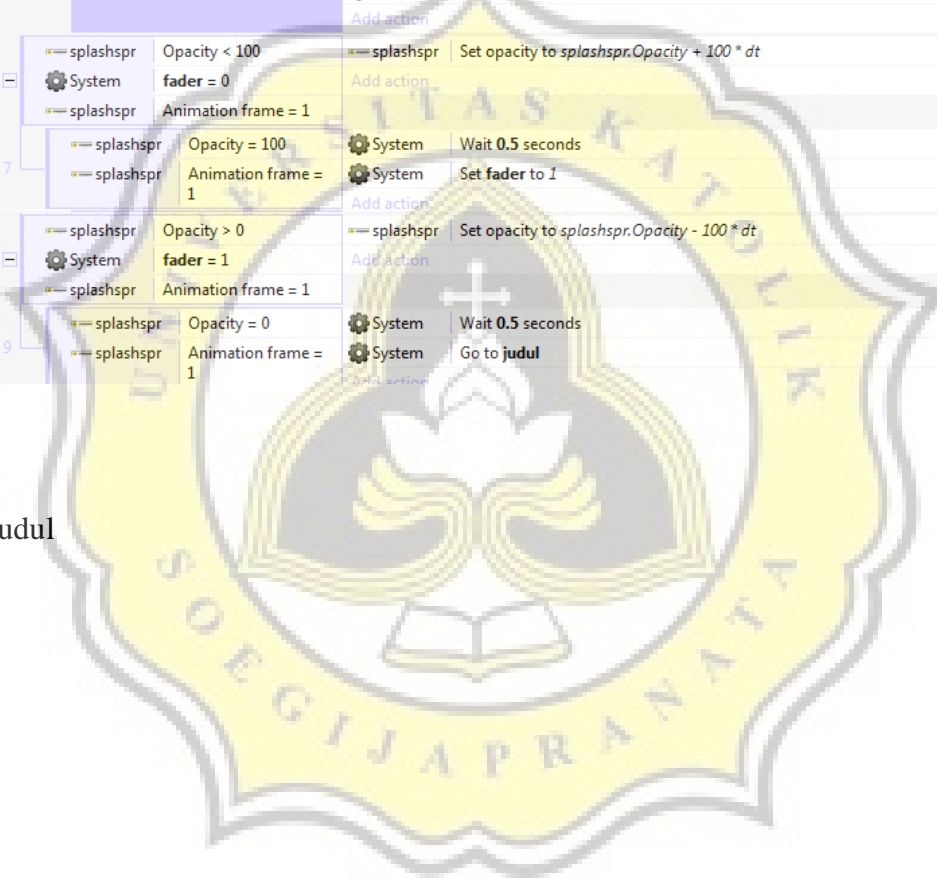
Global variable

Umum
Global number fader = 0
Global number tutorial_frame = 0
Global number tutorial_animation = 0
Global number kedip = 1
Global number level = 0
Global number selectmode = 0
Global number mode2tipe = 0
Global number skor = 0
Global number pause = 1
Story
Global number ulang = 0
Global number dialog_touch = 0
Global number penjelasan_touch = 0
Global number angkajawaa = 0
Global number angkajawab = 0
Global number angkajawac = 0
Global number angkajawad = 0
Global number soalrandom = 0
Memory Match
Global number MarginKiri = 50
Global number MarginAtas = 100
Global number JarakKartu = 5
Global number LebarKartu = 0
Global number TinggiKartu = 0
Global number JumlahKolom = 10
Global number JumlahBaris = 4
Global number JumlahKartu = 40
Global number JumlahKocokanKartu = 20
Global number DelayGameReset = 5
Global number DelayTutupKartu = 1
Global number gFirstCardFrame = -1
Global number gSecondCardFrame = -1
Global number gCountCardsPicked = 0
Global number Cocok = 0
Global number Giliran = 0
Global number waktu = 0
Tangkap Air
Global number delay_spawn = 5
Global number speed = 1
Global number soal = 0
Global number nyawa = 5
Global number kode = 0
Global number powerups = 0
Global number pu0 = 0
Global number pu1 = 0
Global number pu2 = 0
Global number pu3 = 0
Global number pu4 = 0
Global number soalbenar = 0
Mode 4
Global number totalskor = 0
Global number totalsoal = 0

Splashscreen

1	System	On start of layout	System	Set fader to 0
			splashspr	Set opacity to 0
			splashspr	Stop animation
			Add action	
2	splashspr	Opacity < 100	splashspr	Set opacity to $splashspr.Opacity + 100 * dt$
	System	fader = 0	Add action	
	splashspr	Animation frame = 0		
3	splashspr	Opacity = 100	System	Wait 0.5 seconds
	splashspr	Animation frame = 0	System	Set fader to 1
			Add action	
4	splashspr	Opacity > 0	splashspr	Set opacity to $splashspr.Opacity - 100 * dt$
	System	fader = 1	Add action	
	splashspr	Animation frame = 0		
5	splashspr	Opacity = 0	System	Wait 0.5 seconds
	splashspr	Animation frame = 0	splashspr	Set animation frame to 1
			System	Set fader to 0
			Add action	
6	splashspr	Opacity < 100	splashspr	Set opacity to $splashspr.Opacity + 100 * dt$
	System	fader = 0	Add action	
	splashspr	Animation frame = 1		
7	splashspr	Opacity = 100	System	Wait 0.5 seconds
	splashspr	Animation frame = 1	System	Set fader to 1
			Add action	
8	splashspr	Opacity > 0	splashspr	Set opacity to $splashspr.Opacity - 100 * dt$
	System	fader = 1	Add action	
	splashspr	Animation frame = 1		
9	splashspr	Opacity = 0	System	Wait 0.5 seconds
	splashspr	Animation frame = 1	System	Go to judul
			Add action	

Judul



1	System	kedip = 0	mulai	Set Invisible
			System	Wait 0.5 seconds
			System	Set kedip to 1
			Add action	
2	System	kedip = 1	mulai	Set Visible
			System	Wait 0.5 seconds
			System	Set kedip to 0
			Add action	
3	Touch	On tap gesture	System	Set fader to 1
			Audio	Play Cursor1 not looping at volume 0 dB (tag "")
			Add action	
4	fader	Opacity < 100	fader	Set position to (0, 0)
	System	fader = 1	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to fader.Opacity + 100 * dt
			Add action	
5	fader	Opacity = 100	System	Wait 0.5 seconds
			System	Go to select
			Add action	
6	System	On start of layout	System	Reset global variables to default
			Audio	Play POL-mr-krabs-short looping at volume 0 dB (tag "")
			judul	Set opacity to 0
			mulai	Set opacity to 0
			logo2	Set opacity to 0
			Add action	
7	judul	Opacity < 100	judul	Set opacity to judul.Opacity + 100 * dt
			mulai	Set opacity to mulai.Opacity + 100 * dt
			logo2	Set opacity to logo2.Opacity + 100 * dt
			Add action	

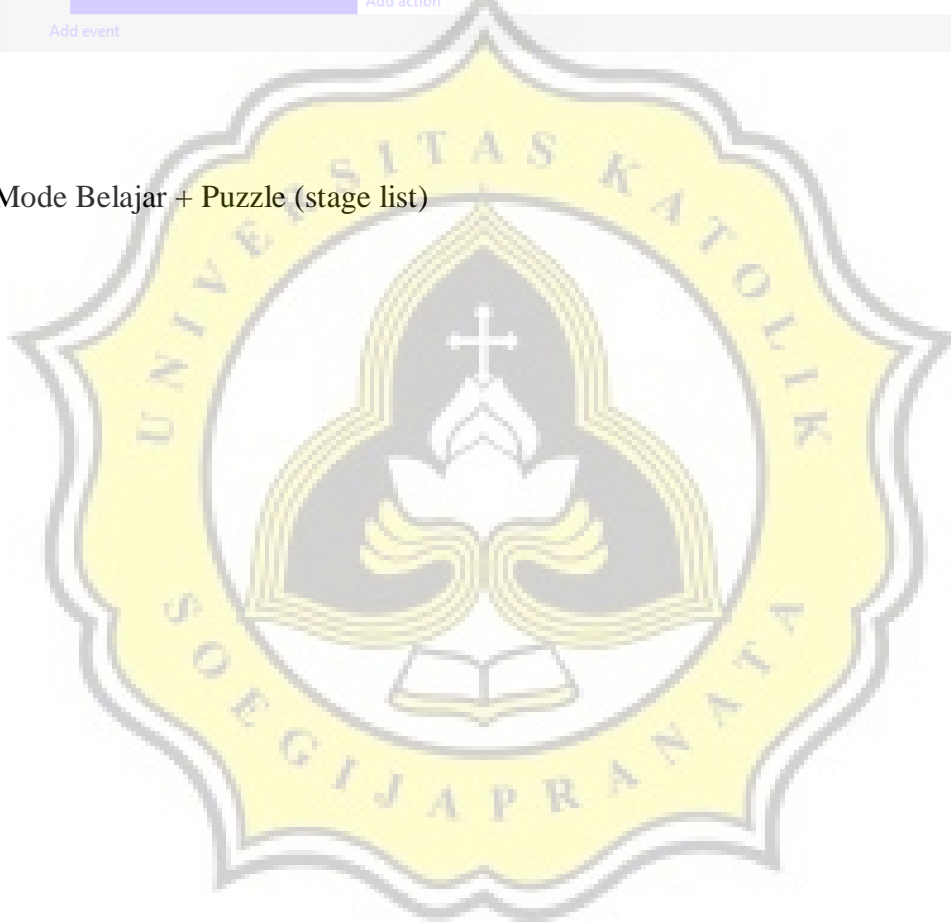
Pemilihan mode permainan

1	System	On start of layout	System	Set fader to 0
			System	Reset global variables to default
			option	Set animation frame to 0
			option	Stop animation
			freeText	Set text to "Sound: ON"
			freeText	Set font color to rgb(34, 177, 76)
			tblmode1	Set animation speed to 1
			tblmode2	Set animation speed to 1
			tblmode3	Set animation speed to 1
			tblmode4	Set animation speed to 1
			Add action	
2	fader	Opacity > 0	fader	Set position to (0, 0)
	System	fader = 0	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to fader.Opacity - 100 * dt
			Add action	
3	fader	Opacity < 100	fader	Set position to (0, 0)
	System	fader = 1	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to fader.Opacity + 100 * dt
			Add action	
4	fader	Opacity = 100	System	Wait 0.5 seconds
	System	selectmode = 1	System	Go to awal
			Audio	Stop all
			Add action	
5	fader	Opacity = 100	System	Wait 0.5 seconds
	System	selectmode = 2	System	Go to mode2tipe
			Audio	Stop all
			Add action	
6	fader	Opacity = 100	System	Wait 0.5 seconds
	System	selectmode = 3	System	Go to mulaita
			Audio	Stop all
			Add action	
7	fader	Opacity = 100	System	Wait 0.5 seconds
	System	selectmode = 4	System	Go to layout "mode_1"&soalrandom+1
			Audio	Stop all
			Add action	
8	Touch	On touched tblmode1	Audio	Play Cursor2 not looping at volume 0 dB (tag "")
			System	Set selectmode to 1
			System	Set fader to 1
			Add action	
9	Touch	On touched tblmode2	Audio	Play Cursor2 not looping at volume 0 dB (tag "")
			System	Set selectmode to 2
			System	Set fader to 1
			Add action	
10	Touch	On touched tblmode3	Audio	Play Cursor2 not looping at volume 0 dB (tag "")
			System	Set selectmode to 3
			System	Set fader to 1
			Add action	
11	Touch	On touched tblmode4	Audio	Play Cursor2 not looping at volume 0 dB (tag "")
			System	Set waktu to 60
			System	Set soalrandom to round(random(4))
			System	Set selectmode to 4
			System	Set fader to 1
			Add action	
12	Touch	On touched option	Audio	Set toggle silent
			Add action	
13	Audio	Is silent	option	Set animation frame to 1
			option	Stop animation
			freeText	Set text to "Sound: OFF"
			Add action	
14	System	Else	option	Set animation frame to 0
			option	Stop animation
			freeText	Set text to "Sound: ON"
			Add action	
15	tblmode1	On any animation finished	tblmode1	Start animation from beginning
			Add action	
16	tblmode2	On any animation finished	tblmode2	Start animation from beginning
			Add action	
17	tblmode3	On any animation finished	tblmode3	Start animation from beginning
			Add action	
18	tblmode4	On any animation finished	tblmode4	Start animation from beginning
			Add action	

Tutorial

1	Touch	On touched tutorial	System	Add 1 to tutorial_frame
			tutorial	Set animation frame to tutorial_frame
				Add action
2	System	tutorial_frame > tutorial_animation		Add action
3	System	tutorial_animation = 2	System	Go to mode2tipe
				Add action
4	System	tutorial_animation = 3	System	Go to mulaita
				Add action
5	System	On start of layout	System	Set tutorial_frame to 0
			tutorial	Set animation to " tutor "& tutorial_animation (play from beginning)
			tutorial	Stop animation
				Add action
				Add event

Mode Belajar + Puzzle (stage list)



1	System	On start of layout	System	Set fader to 0
			Audio	Play POL-mr-krabs-short looping at volume 0 dB (tag "")
			System	Wait 2.5 seconds
			System	Set fader to 1
			Add action	
2	fader	Opacity > 0	fader	Set position to (0, 0)
	System	fader = 0	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $fader.Opacity - 100 * dt$
			Add action	
3	Touch	On tap gesture	System	Set fader to 1
			Audio	Play Cursor1 not looping at volume 0 dB (tag "")
			Add action	
4	fader	Opacity < 100	fader	Set position to (0, 0)
	System	fader = 1	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $fader.Opacity + 100 * dt$
			Add action	
5	fader	Opacity = 100	System	Wait 0.5 seconds
	System	level = 0	System	Go to level01
			Audio	Stop all
			Add action	
6	fader	Opacity = 100	System	Wait 0.5 seconds
	System	level = 1	System	Go to level02
			Audio	Stop all
			Add action	
7	fader	Opacity = 100	System	Wait 0.5 seconds
	System	level = 2	System	Go to level03
			Audio	Stop all
			Add action	
8	fader	Opacity = 100	System	Wait 0.5 seconds
	System	level = 3	System	Go to level04
			Audio	Stop all
			Add action	
9	fader	Opacity = 100	System	Wait 0.5 seconds
	System	level = 4	System	Go to select
			Audio	Stop all
			Add action	
10	System	level = 0	panah01	Set Visible
			check01	Set Invisible
			check02	Set Invisible
			check03	Set Invisible
			check04	Set Invisible
			Add action	
11	System	level = 1	panah02	Set angle to 180 degrees
			panah02	Set Visible
			panah01	Set Invisible
			check02	Set Invisible
			check03	Set Invisible
			check04	Set Invisible
			Add action	
12	System	level = 2	panah03	Set Visible
			panah02	Set Invisible
			check03	Set Invisible
			check04	Set Invisible
			Add action	
13	System	level = 3	panah04	Set angle to 180 degrees
			panah04	Set Visible
			panah03	Set Invisible
			check04	Set Invisible
			Add action	
14	System	level = 4	panah04	Set Invisible
			Add action	
15	System	kedip = 0	panah01	Move -1 pixels at angle 90
			panah02	Move -1 pixels at angle 90
			panah03	Move -1 pixels at angle 90
			panah04	Move -1 pixels at angle 90
			System	Wait 0.5 seconds
			System	Set kedip to 1
			Add action	
16	System	kedip = 1	panah01	Move 1 pixels at angle 90
			panah02	Move 1 pixels at angle 90
			panah03	Move 1 pixels at angle 90
			panah04	Move 1 pixels at angle 90
			System	Wait 0.5 seconds
			System	Set kedip to 0
			Add action	

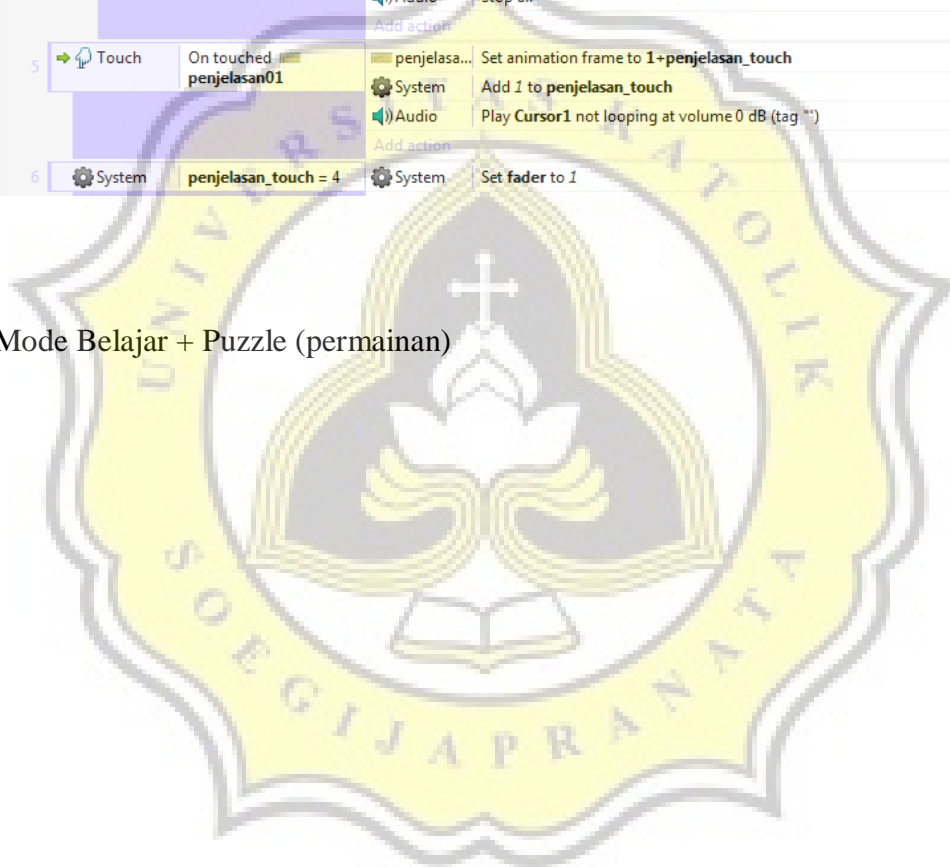
Mode Belajar + Puzzle (dialog)

1	System	On start of layout	System	Set fader to 0
			dio	Set animation speed to 0.5
			dialog	Set animation frame to 1
			dialog	Stop animation
			Audio	Play POL-sky-wanderer-short looping at volume 0 dB (tag "")
			Add action	
2	fader	Opacity > 0	fader	Set position to (0, 0)
	System	fader = 0	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $fader.Opacity - 100 * dt$
			Add action	
3	dio	On any animation finished	dio	Start animation from beginning
			Add action	
4	fader	Opacity < 100	fader	Set position to (0, 0)
	System	fader = 1	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $fader.Opacity + 100 * dt$
			Add action	
5	fader	Opacity = 100	System	Wait 0.5 seconds
			System	Go to level01puzzle
			Audio	Stop all
			Add action	
6	Touch	On touched dialog	System	Add 1 to dialog_touch
			dialog	Set animation frame to $1 + dialog_touch$
			Audio	Play Cursor1 not looping at volume 0 dB (tag "")
			Add action	
7	System	dialog_touch ≠ 0	spraksara...	Set opacity to $spraksarajawa.Opacity - 100 * dt$
			Add action	
8	System	dialog_touch = 2	sprangka...	Set opacity to $sprangkajawa.Opacity + 100 * dt$
			Add action	
9	System	Else	sprangka...	Set opacity to $sprangkajawa.Opacity - 100 * dt$
			Add action	
10	System	dialog_touch ≥ 4	dialog	Set Invisible
			sentuh_n...	Set Invisible
			System	Set fader to 1
			Add action	
11	System	kedip = 0	sentuh_n...	Set Invisible
	System	dialog_touch < 4	System	Wait 0.5 seconds
			System	Set kedip to 1
			Add action	
12	System	kedip = 1	sentuh_n...	Set Visible
	System	dialog_touch < 4	System	Wait 0.5 seconds
			System	Set kedip to 0
			Add action	

Mode Belajar + Puzzle (penjelasan)

1	System	On start of layout	System	Set fader to 0
			penjela...	Stop animation
			System	Set soalrandom to $\text{round}(\text{random}(4))$
			Add action	
2	fader	Opacity > 0	fader	Set position to (0, 0)
	System	fader = 0	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $\text{fader.Opacity} - 100 * dt$
			Add action	
3	fader	Opacity < 100	fader	Set position to (0, 0)
	System	fader = 1	fader	Set height to 10000
			fader	Set width to 10000
			fader	Set opacity to $\text{fader.Opacity} + 100 * dt$
			Add action	
4	fader	Opacity = 100	System	Wait 0.5 seconds
			System	Go to layout "soal_1"&soalrandom+1
			Audio	Stop all
			Add action	
5	Touch	On touched penjelasan01	penjela...	Set animation frame to $1 + \text{penjelasan_touch}$
			System	Add 1 to penjelasan_touch
			Audio	Play Cursor1 not looping at volume 0 dB (tag "")
			Add action	
6	System	penjelasan_touch = 4	System	Set fader to 1

Mode Belajar + Puzzle (permainan)



Mode Memory Match

The screenshot displays a detailed timeline for an animation project titled "Mode Memory Match". The timeline is organized into several key sections:

- Initialization (0-10s):** Sets up variables like `TinggiKartu`, `LebarKartu`, and `JumlahKartu`. It includes actions for playing audio (e.g., "Minnie Game Rita's Christmas Party") and setting up a deck of cards.
- Card Setup (10-20s):** Defines the layout of cards on the screen based on `CurrentColumn` and `CurrentTableauCard`. It involves creating card objects and setting their positions and frames.
- Gameplay (20-60s):** This section contains the core logic for card flipping and matching. It includes:
 - Events for "On touched" on a card, which trigger actions like `gCountCardPicked` and `Is FaceUp`.
 - Actions for flipping cards, such as `Set FaceUp to True` and `Set animation to 'CardFace'`.
 - Logic for matching pairs, including `Wait Delay TutupKartu` and `Play Mis` for incorrect matches.
 - Audio cues for correct matches (`Play Chime1`) and incorrect matches (`Play Mis`).
- Game End (60-70s):** Triggers a "Cocok 2: JumlahKartu / 2" event, which leads to a "Triggerance" section. This section includes:
 - Playing a "Minnie Game Over" audio.
 - Setting text for a win message: "Selamat! Kamu telah berhasil menyelesaikan permainan!".
 - Setting visibility and opacity for various UI elements.
- Final UI (70-80s):** Shows the final state of the game, including a "fader" that fades in and out, and a "mode2Tipe" variable set to 1.

The interface also shows various system and touch events, such as "On start of layout", "On F1 pressed", and "On touched" for different UI elements like "back" and "opsi_tidak".

Mode Tangkap Air

1	System	On start of layout	air	Stop animation
			back	Stop animation
			System	Reset global variables to default
			powerups	Destroy
			air	Destroy
			System	Set fader to 0
			Audio	Play Minigame Water Balloon looping at volume 0 dB (tag "")
2	System	Every delay_spawn seconds	air	Set kode to round(random(19))
	System	pause = 1	System	Create object air on layer 0 at (random(0, 700), -96)
			air	Set animation frame to kode
			air	Stop animation
3	System	Every tick	skor	Set text to skor
	System	pause = 1	nyawa	Set text to nyawa
			soal	Set animation frame to soal
			soal	Stop animation
			air	Set Y to Self.Y + speed
			powerups	Set Y to Self.Y + 3
4	Touch	On touched air	air	Destroy
	air	Animation frame = soal	System	Add 3 to soalbenar
	System	pause = 1	System	Add 5 to skor
			System	Set soal to round(random(19))
			Audio	Play Chime1 not looping at volume 0 dB (tag "")
5	System	delay_spawn ≥ 0.5	System	Add -0.1 to delay_spawn
6	System	speed ≤ 5	System	Add 0.1 to speed
7	Touch	On touched air	air	Destroy
	air	Animation frame = soal	System	Add -3 to nyawa
	System	pause = 1	Audio	Play Miss not looping at volume 0 dB (tag "")
8	Line	On collision with air	air	Destroy
	air	Animation frame = soal	System	Add -3 to nyawa
	System	pause = 1	Audio	Play Miss not looping at volume 0 dB (tag "")
9	Line	On collision with air	air	Destroy
	air	Animation frame = soal	System	Add 5 to skor
	System	pause = 1	System	Add 0.1 to speed
10	System	delay_spawn ≥ 1	System	Add -0.1 to delay_spawn
11	System	speed ≤ 5	System	Add 0.1 to speed
12	System	Every 5 seconds	System	Set powerups to round(random(4))
	System	pause = 1	System	Create object powerups on layer 0 at (random(0, 700), -96)
			powerups	Set animation to "pu0powerups (play from beginning)"
13	System	Every 3 seconds	System	Create object air on layer 0 at (random(0, 700), -96)
	System	pause = 1	air	Set animation frame to soal
			air	Stop animation
14	powerups	On any animation finished	powerups	Start animation from beginning
15	Touch	On touched powerups	powerups	Start animation from beginning
16	powerups	Is animation "pu0" playing	System	Add 5 to skor
			System	Add 1 to pu0
			powerups	Destroy
			Audio	Play Chime2 not looping at volume 0 dB (tag "")
17	powerups	Is animation "pu1" playing	System	Add 2 to nyawa
			System	Add 2 to pu1
			powerups	Destroy
			Audio	Play Chime2 not looping at volume 0 dB (tag "")
18	powerups	Is animation "pu2" playing	System	Add -2 to nyawa
			System	Add 1 to pu2
			powerups	Destroy
			Audio	Play Miss not looping at volume 0 dB (tag "")
19	powerups	Is animation "pu3" playing	System	Set soal to round(random(19))
			System	Add 3 to skor
			System	Add 1 to pu3
			powerups	Destroy
			Audio	Play Cursor1 not looping at volume 0 dB (tag "")
20	powerups	Is animation "pu4" playing	System	Add 2 to skor
			System	Add 1 to pu4
			powerups	Set animation to "pu1round(random(4)) (play from beginning)"
			Audio	Play Cursor2 not looping at volume 0 dB (tag "")
21	System	nyawa ≤ 0	System	Set nyawa to 0
	System	pause = 1	System	Wait 0.5 seconds
			System	Go to resultta
			Audio	Stop all
22	fader	Opacity > 0	fader	Set position to (0, 0)
	System	fader = 0	fader	Set height to 20000
			fader	Set width to 20000
			fader	Set opacity to fader.Opacity - 100 * dt
23	Touch	On touched back	System	Set pause to 0
	System	pause = 1	System	Set time scale to 0
			epsi_kelu	Set Visible
			epsi_ya	Set Visible
			epsi_tidak	Set Visible
24	Touch	On touched opsi_ya	Audio	Play Cursor2 not looping at volume 0 dB (tag "")
	System	Is visible	System	Set time scale to 1
			System	Go to select
25	Touch	On touched opsi_tidak	Audio	Play Cursor3 not looping at volume 0 dB (tag "")
	System	Is visible	System	Set pause to 1
			System	Set time scale to 1
			epsi_kelu	Set Invisible
			epsi_ya	Set Invisible
			epsi_tidak	Set Invisible