**DOKUMENTASI**

**TUGAS BESAR 02 PPPB**



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**BAB I**

**PENDAHULUAN**

* 1. **LATAR BELAKANG**

Pada era saat ini dimana semua aktivitas dilakukan secara online dan banyak sekali tugas dikarenakan semua kegiatan yang seharusnya dilakukan di sekolah ataupun di kampus digantikan oleh tugas yang sangat banyak jumlahnya. Di saat seperti itu kita sangat membutuhkan sesuatu untuk mengistirahatkan jiwa dan raga kita. Aplikasi Piano Tiles ini sangat cocok dimainkan saat kita mengalami kelelahan dan dapat mengistirahatkan jiwa kita , selain itu game Piano Tiles ini juga dapat membuat motorik anda dapat bekerja dengan baik.

* 1. **DESKRIPSI APLIKASI**

Aplikasi Piano Tiles ini merupakan aplikasi untuk bermain game layaknya sebuah piano yang harus selalu ditekan , jika ada sebuah tiles atau kotak yang terlewat, maka game akan dihentikan dan akan pindah ke halaman game over yang dimana kita dapat memilih untuk mengulang permainan tersebut kembali atau balik ke menu pertama. Selain fitur diatas user juga dapat melakukan pengaturan lagu yang dimainkan , dan juga dapat melihat score yang telah dibuat pada game yang dimainkannya. Mengenai kompatibilitas, aplikasi ini di-*support* oleh OS Android versi Lollipop (5.1.1/API 21) sebagai *minimum requirement*-nya.

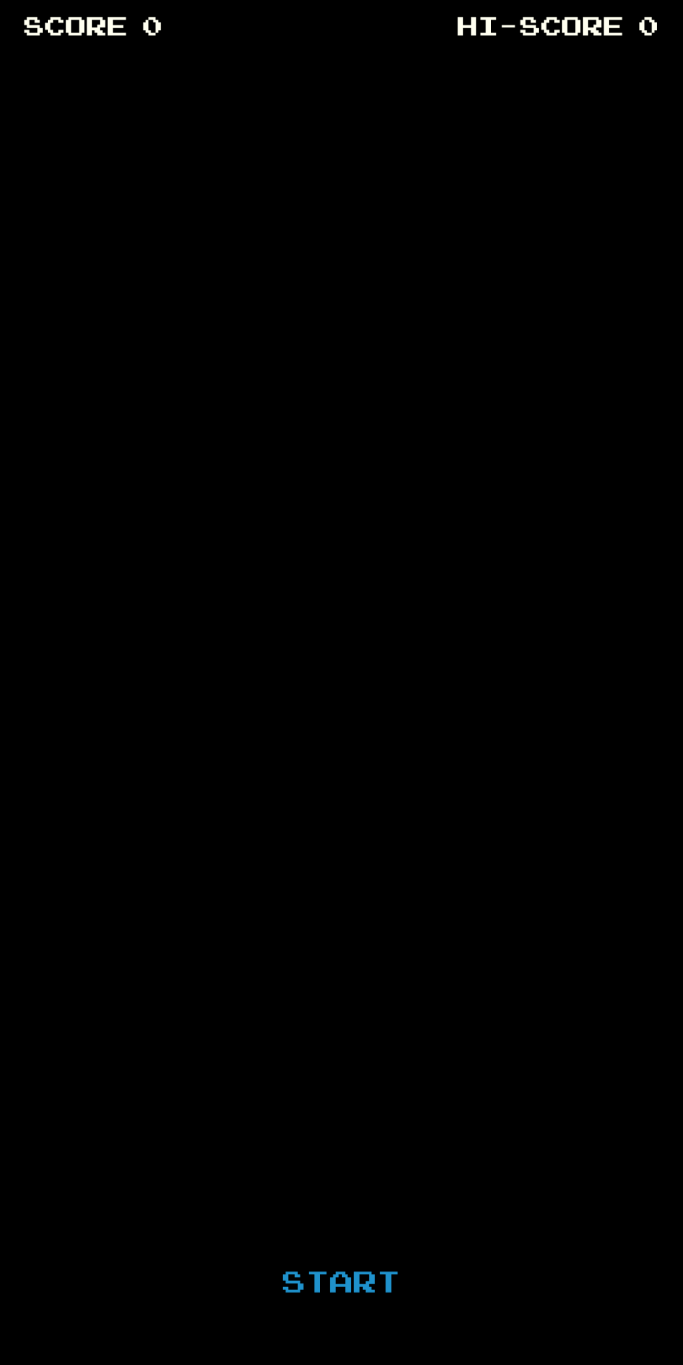
**BAB II**

**APLIKASI**

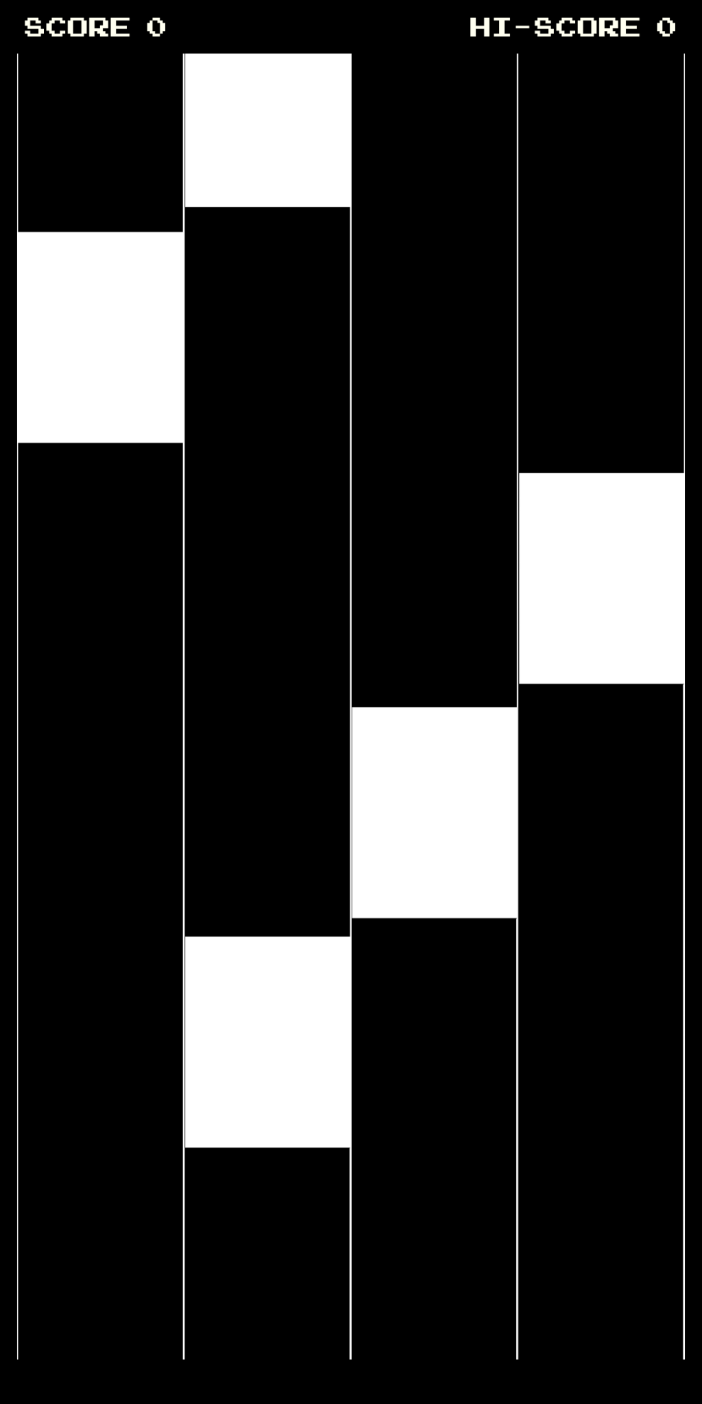
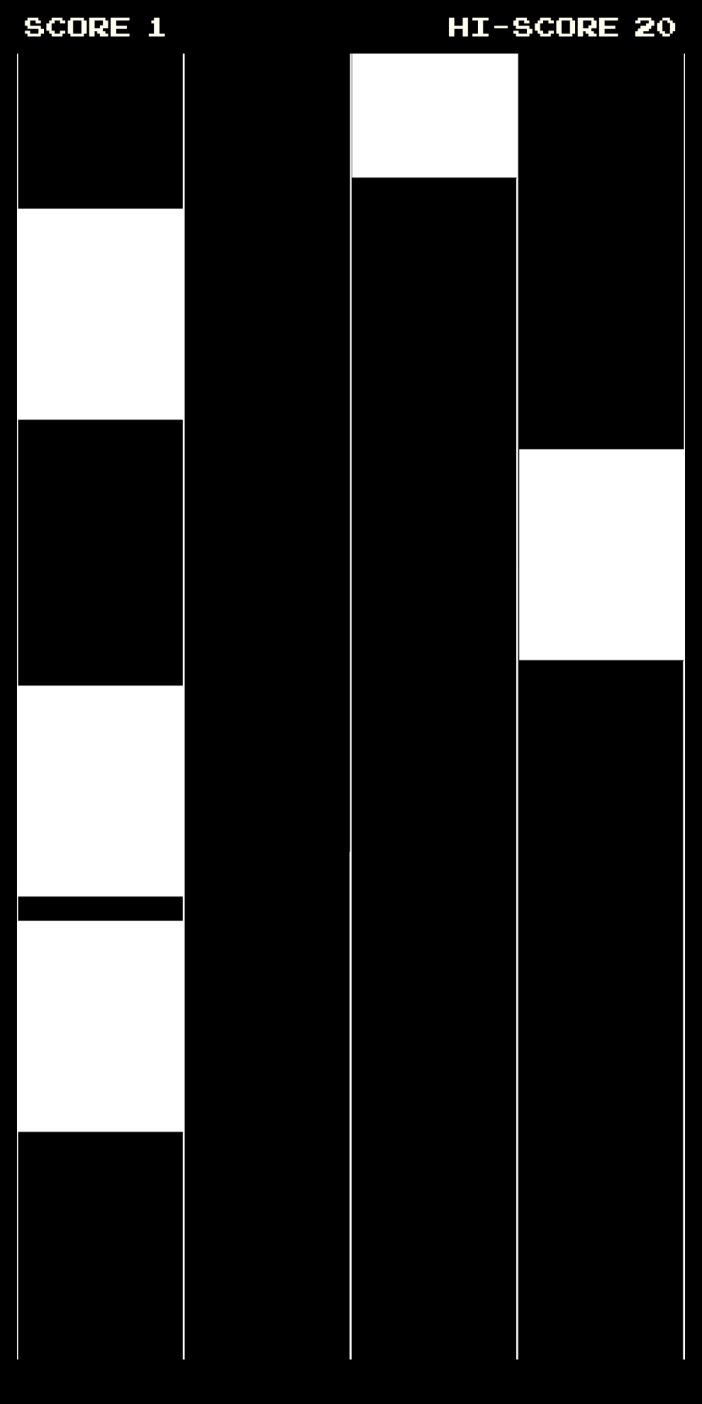
**2.1. DAFTAR FITUR DASAR**

**2.1.1 MENU UTAMA**

****Ini adalah penampakan menu utama dari aplikasi piano tiles yang kami buat. Pada halaman ini terdapat 4 button yang memiliki fungsi yang berbeda. Pertama ada button “PLAY” yang akan memindahkan kita ke halaman untuk memulai game, yang kedua ada button “LEADERBOARD” yang akan memindahkan kita ke halaman untuk melihat score-score kita, yang ketiga ada button “SETTINGS” yang akan memindahkan kita ke halaman untuk mengganti lagu yang ingin dimainkan, dan yang terakhir ada button “EXIT” untuk keluar dari permainan.

**2.1.2 PIANO TILES GAME FRAGMENT**

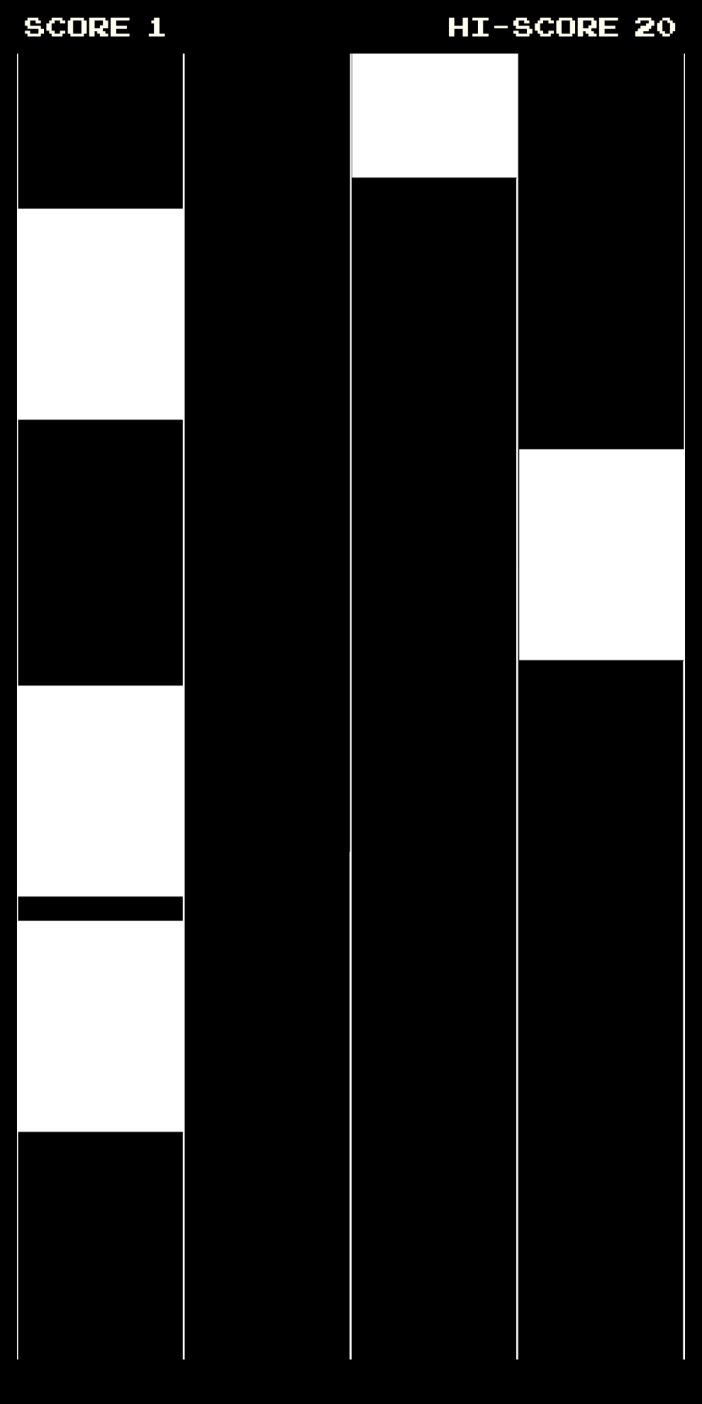
Halaman ini adalah halaman dimana kita memainkan game piano tiles. Pada halaman ini terdapat 2 buah textView yang menampilkan score kita saat ini dan menampilkan hi score yang kita miliki saat bermain game piano tiles ini, Pada halaman ini juga terdapat tombol start yang digunakan untuk mengaktifkan thread dan tiles akan mulai bermunculan ke arah bawah. Jika kita berhasil menekan tiles sebelum mencapai paling bawah, score akan bertambah satu per satu dan jika melebih hi score maka hi score juga akan berubah. Tapi jika ada 1 tiles yang terlewat dan turun hingga ke paling bawah maka game akan dihentikan dan user akan dipindahkan ke halaman berikutnya yaitu halaman Game Over.

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**2.1.3 GAME OVER FRAGMENT**

Pada halaman ini hanya terdapat text view yang bertuliskan “Game Over” dan 2 buah button yang berfungsi untuk mengulang permainan dan untuk user kembali pada menu utama. Game Over akan muncul jika anda kalah dan tidak menghasilkan hi score. Halaman ini juga terdapat gambar dengan format GIF yang membuat Anda “kesal” sehingga Anda harus bermain lagi atau menyerah begitu saja. Jika Anda menekan tombol play again, Anda akan mendapatkan countdown selama 3 detik untuk menunggu. Implementasi ini sengaja dilakukan agar Thread dalam game sebelumnya dapat menyelesaikan pergerakan render tile.

**2.1.4 HI SCORE**

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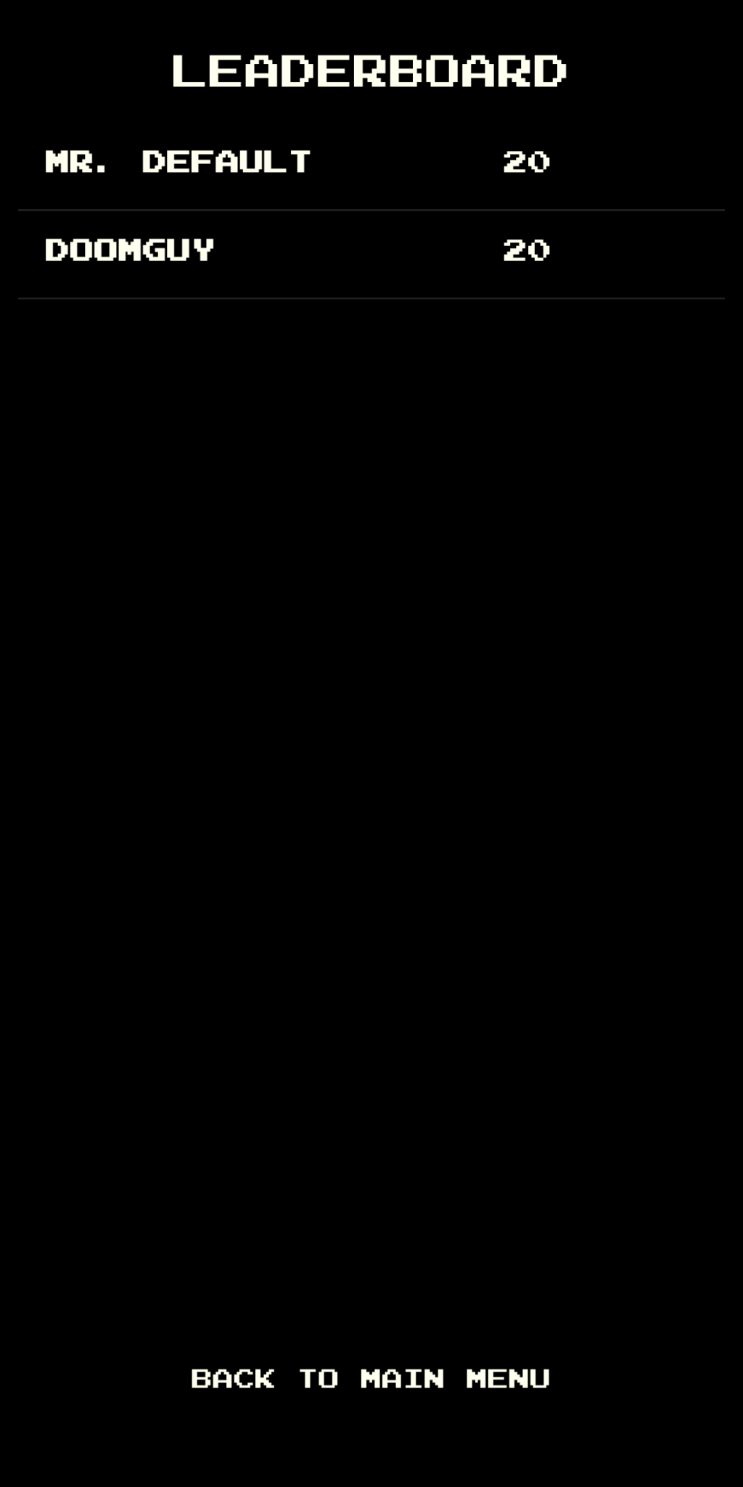
Hi Score adalah fitur yang ada dalam PianoTilesGameFragment yang digunakan untuk menambahkan nilai yang paling tinggi bedasarkan leaderboard. Hi Score akan menampilkan skor tertinggi—bukan skor posisi ke-10. Jika score user berada diatas hi score, maka hi score akan secara berbarengan menambahkan dengan score biasa.

**2.2. DAFTAR FITUR TAMBAHAN**

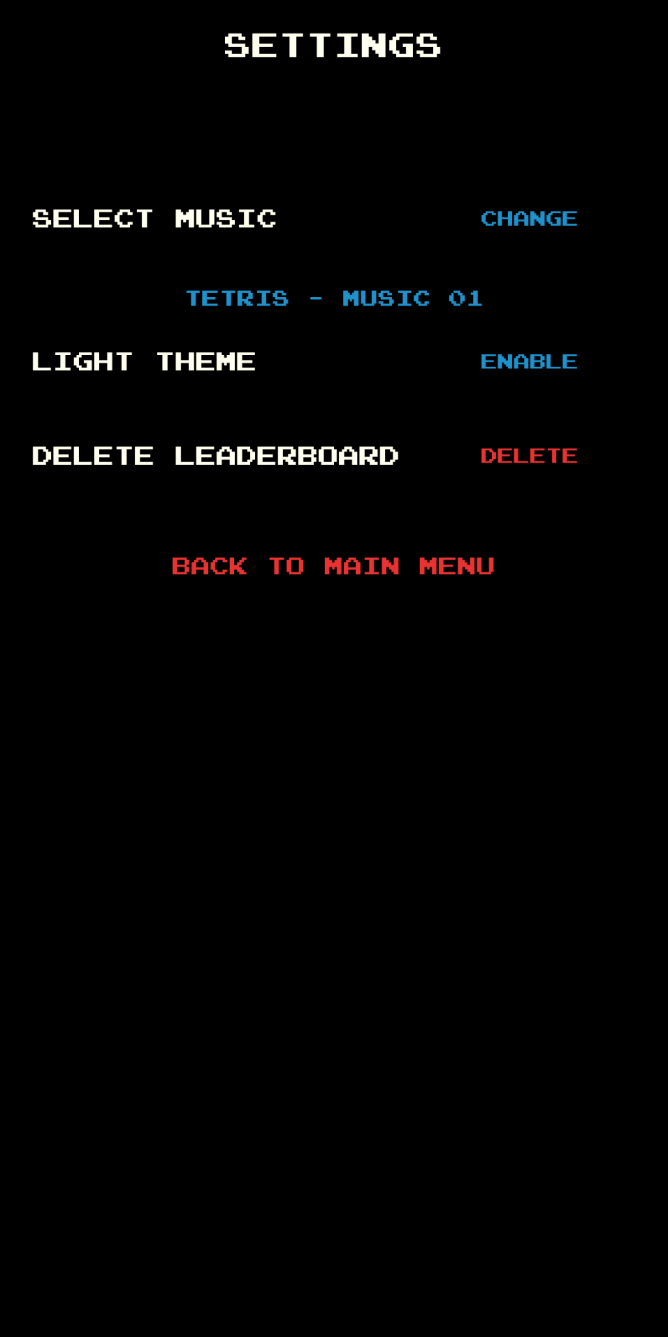
**2.2.1 LEADERBOARD FRAGMENT**

**![A picture containing shape

Description automatically generated](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAeAB4AAD/4RDaRXhpZgAATU0AKgAAAAgABAE7AAIAAAAFAAAISodpAAQAAAABAAAIUJydAAEAAAAKAAAQyOocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEFTVVMAAAAFkAMAAgAAABQAABCekAQAAgAAABQAABCykpEAAgAAAAM4MAAAkpIAAgAAAAM4MAAA6hwABwAACAwAAAiSAAAAABzqAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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ini merupakan halaman dimana user dapat melihat score-score yang dulu pernah dicapai pada saat memainkan game ini, pada halaman ini hanya terdapat 1 buah list view , 1 buah text view dan 1 buah button untuk user kembali ke menu utama.



**2.2.2 SETTINGS FRAGMENT**

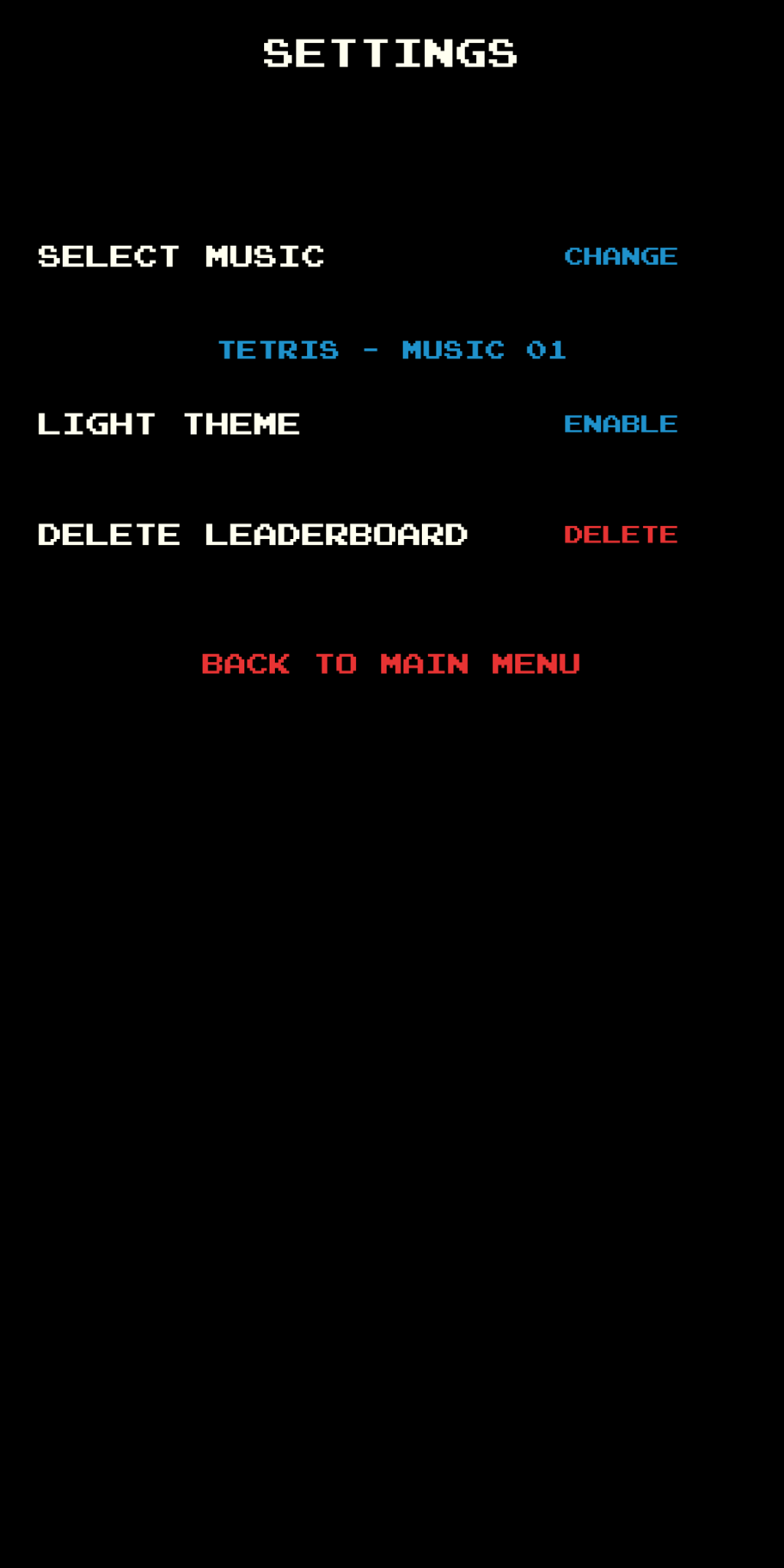
****Ini adalah halaman untuk mengganti musik yang dimainkan pada saat game dimulai. Pada halaman ini hanya terdapat 2 buah text view dan 2 buah button yang berfungsi untuk mengganti lagu dan untuk user kembali pada menu utama.

**2.2.3 TOAST**

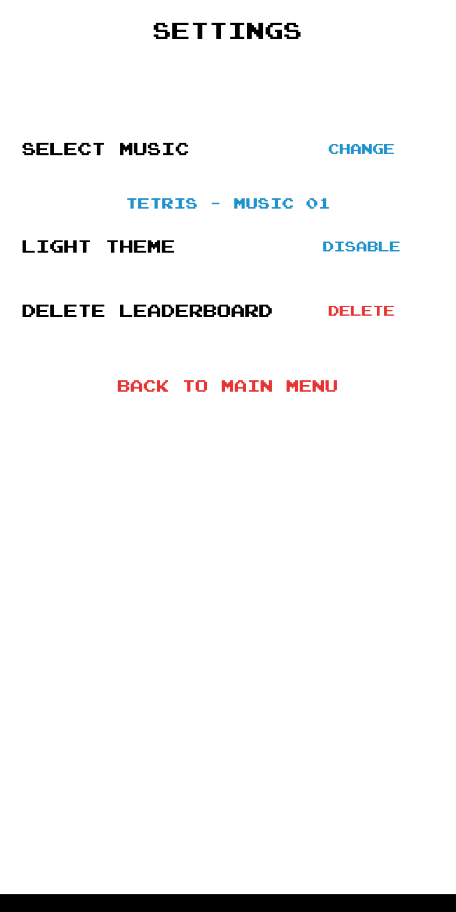
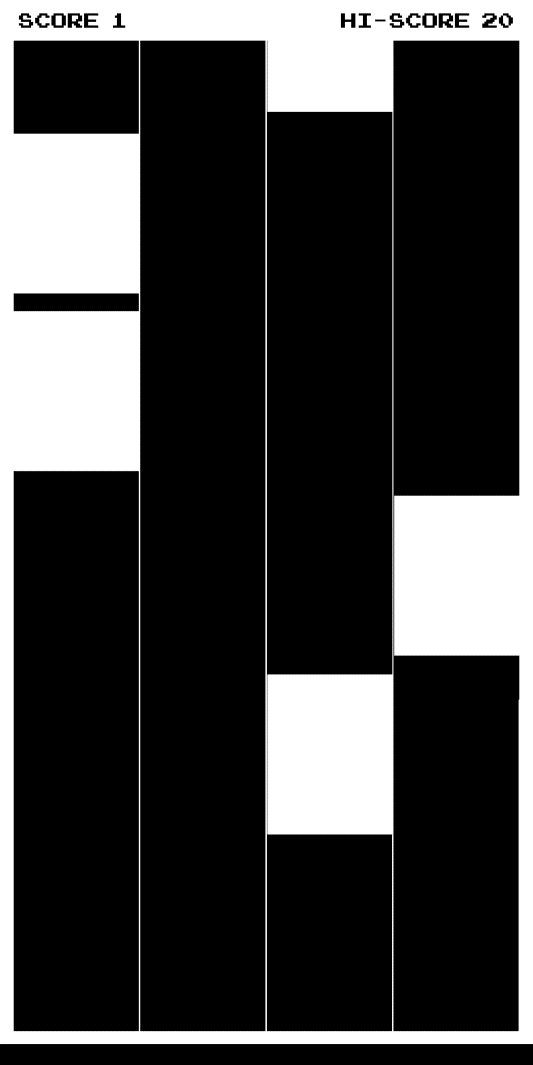
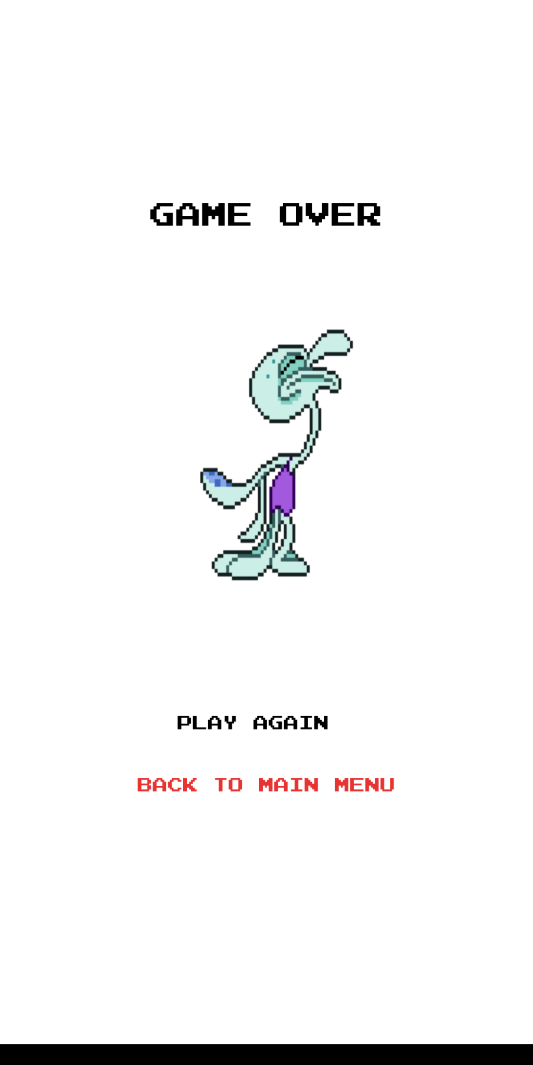
**![Graphical user interface, text, application

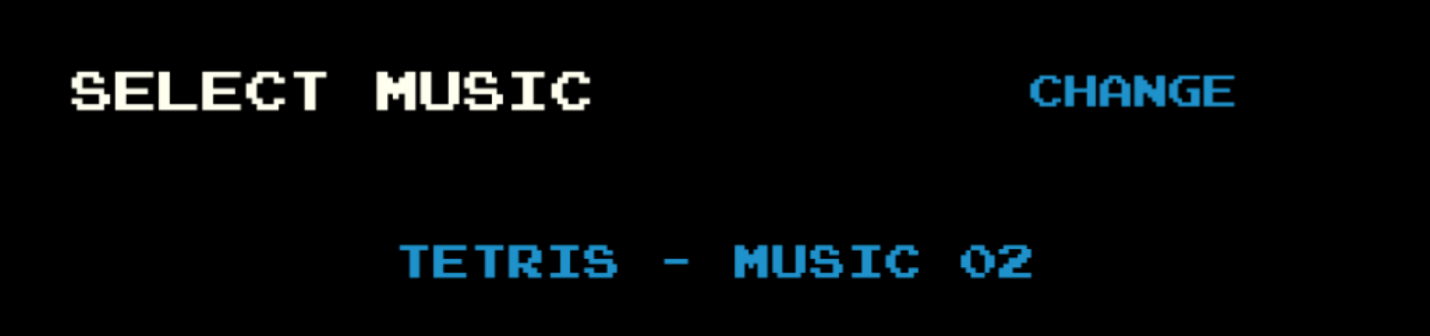
Description automatically generated](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAeAB4AAD/4RDaRXhpZgAATU0AKgAAAAgABAE7AAIAAAAFAAAISodpAAQAAAABAAAIUJydAAEAAAAKAAAQyOocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEFTVVMAAAAFkAMAAgAAABQAABCekAQAAgAAABQAABCykpEAAgAAAAM0MgAAkpIAAgAAAAM0MgAA6hwABwAACAwAAAiSAAAAABzqAAAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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h5eoOEhYaHiImKkpOUlZaXmJmaoqOkpaanqKmqsrO0tba3uLm6wsPExcbHyMnK0tPU1dbX2Nna4eLj5OXm5+jp6vHy8/T19vf4+fr/xAAfAQADAQEBAQEBAQEBAAAAAAAAAQIDBAUGBwgJCgv/xAC1EQACAQIEBAMEBwUEBAABAncAAQIDEQQFITEGEkFRB2FxEyIygQgUQpGhscEJIzNS8BVictEKFiQ04SXxFxgZGiYnKCkqNTY3ODk6Q0RFRkdISUpTVFVWV1hZWmNkZWZnaGlqc3R1dnd4eXqCg4SFhoeIiYqSk5SVlpeYmZqio6Slpqeoqaqys7S1tre4ubrCw8TFxsfIycrS09TV1tfY2dri4+Tl5ufo6ery8/T19vf4+fr/2gAMAwEAAhEDEQA/APm2iiigApVUuwVRknoBSV1vhbRl2fbbhck/cB/nQBDpXhNpVWW/JUHkIOtdNbaZaWigQwqPfFW6KAG7FH8I/Kjav90flTqKAG7V/uj8qNq/3R+VOooAbtX+6Pyo2r/dH5U6igBu1f7o/Kjav90flTqKAG7F/uj8qhnsba5UrNCrD3FWKKAOW1PwijK0lgdrddh6Vyc0MlvK0cylWU8g16rWF4k0db21M8S4mQZ47igDhKKCMHB60UAFFFFABRRRQBNZwm4vIoh/GwFenQRLBbpEgwFAArzvQsHXbTPTzP6V6RQAUUUDrQBKYlBALcngV0s3w18VQxM50ln2ruKRzRu+MZ+6Gyfyrnm2+Ym4H7wxj616f4g0WO2+L3/CQ3WuabYW8E1rPIGuD5+1IY8rsA6tjHXoaSNJWTPOBol1/wAI8ustsFs10bQDPzhwpbkY6YFUViJbB7da7nXbyHUfh7Le2ymKC48TSyIAvIUxsenrWlJ4fs7rRdVx4dXTre10trq1uZ5x9rd1Xdl03H5Tz26UCSVtTzN12NjrVw6TcLpMWpsuLSaVoUfcOXUZIx17112k+HNO1Q+Fr77KFtHScamATgtCC5J9Ny4FUU07T5fCmkahFaqkl5rUkLkE8xfLhfyNAla5yjKq9GyfTFIoU53Nj8K9H1TTNAudX8XaHaaJDaNpNlJd292krGQshTIOTjB39PaqEFnoukWfhWzu9Gi1GfXESe5uJZWVo1eTaoTBwMe+c0xX1OKaJV+82PwqI9eK2/GFpBp/i3VLO0jEcEF1IkaD+FQeBWJSQ5WvoFIRkEHvS0UyTzfXLUWerzRqMKTuH0rPrd8X4/tzj/nkv8zWFQAUUUUAFFFFAFiwn+zahDN/ccGvTY3EkauvIYZFeVV2vhbVxPbC0mbEkY+XPcUAdHRRRQBIJ2DAkA4Oa1vFevR+IvFF5qsEDQR3AjARyCw2xKnUf7uaxaKB8zNtfECx+DbfRkgbzodS+2+YSNpGwrtx171v3XjTQpbzWNRj03UP7Q1iwktZi86mOEsgXKDGSOM8muFooEd3omo3ujfCbXWuoWiiv5o4bCR1Kl2YESlM9tq9R3rCj8Rxp4a0rTPs777HUWvGfIw6nHyj34rGluriaGKGaeWSKAERRu5Kxg9do7fhUVA7s6yTxlA/iXxLqf2STy9ZspraNNwzGXKEE+oGz9a3fDcLa/aeFTqPhvVrmSwlENpe2hxA8ayZ/enB27SD6ZxXm1TwX97awvDa3tzBFJ9+OKZlVvqAcGgRqeMrqO88bazNbuskTXspR15DDdjIrEpAMDApaACkPFLWTr2qpp1iwVh5rjCigDkPENyLrWpWU5C/KPwrMpWYsxZuSTk0lABRRRQAUUUUAFPhmeCVZImKspyCKZRQB2eleK4pVWK++R+m/sa6CK4imUNFIrA+hryypI7meH/UzSR/7rEUAeqUV5h/ad//AM/tx/39b/Gj+07/AP5/bj/v63+NAHp9FeYf2nf/APP7cf8Af1v8aP7Tv/8An9uP+/rf40Aen0V5h/ad/wD8/tx/39b/ABo/tO//AOf24/7+t/jQB6fRXmH9p3//AD+3H/f1v8aP7Tv/APn9uP8Av63+NAHp9MeWOMZd1Ue5rzP+07//AJ/bj/v63+NMku7mUYluJXH+05NAHa6n4ntbRSlufNk7Y6CuLvLya+uGmnYsx/SoKKACiiigAooooA//2Q==)**

Toast ini akan muncul jika kita melakukan sesuatu dimana sebah sequence harus diketahui oleh user. Misalnya, user ingin melakukan delete leaderboard dimana fungsi tersebut disimpan di SettingsFragment. Karena SettingFragment dan LeaderboardFragment disimpan di tempat yang berbeda, maka user harus tahu kalau leaderboard sudah terhapus atau belum.

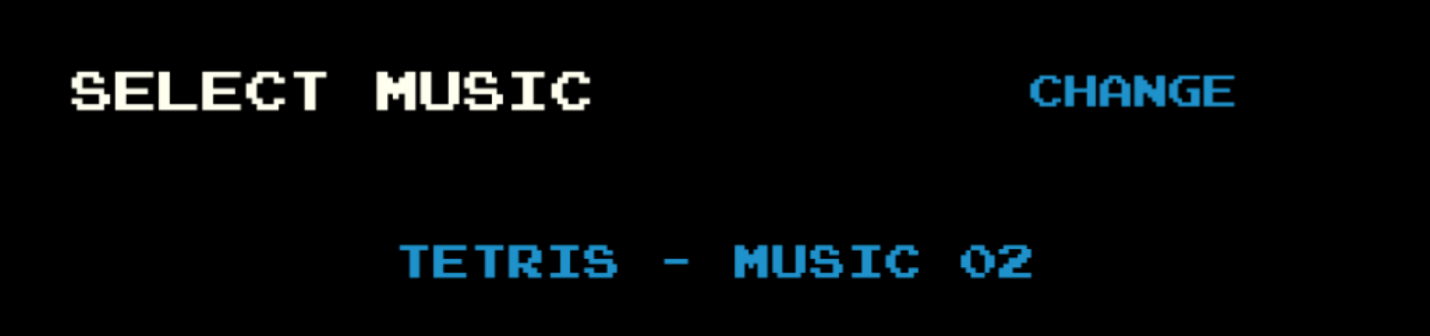
**2.2.4 LIGHT MODE AND DARK MODE**

Light Mode dan Dark Mode adalah sebuah mode dimana sebuah aplikasi akan mengubah tampilan yang terang menjadi gelap, begitupun sebaliknya. Default untuk aplikasi ini adalah dark atau gelap. Penambahan ini ditujukan untuk preferensi pribadi dalam hal pewarnaan. Untuk hasil light theme dapat dilihat gambar di halaman selanjutnya:

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**2.2.5 BACKGROUND MUSIC**

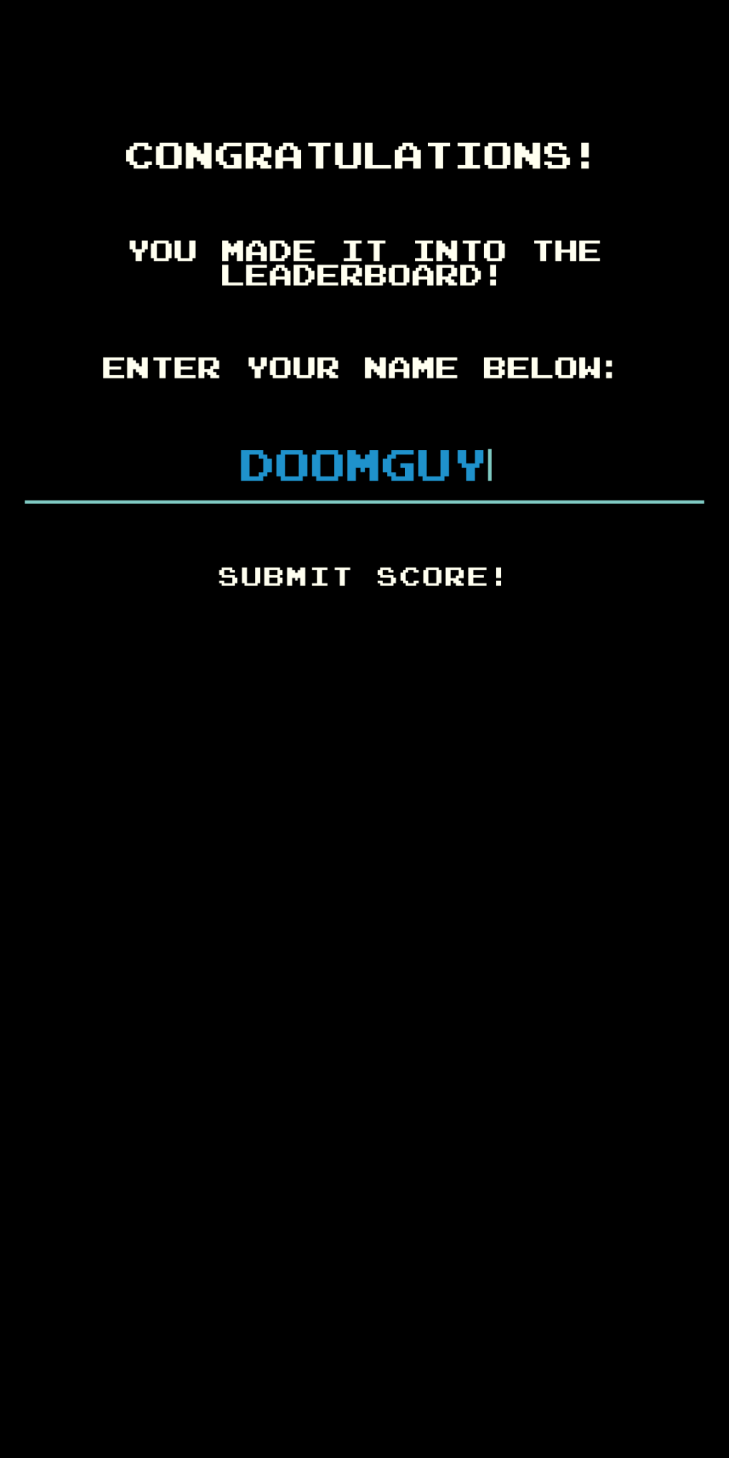
Salah satu fitur tambahan dalam permainan ini adalah memiliki musik. Penambahan musik ini ditujukan agar game tidak membosankan atapun terasa kosong. Untuk menggunakan musik, harus dibuat dengan mengimplementasi MediaPlayer untuk dapat mengeluarkan atau memutar musik yang ada. Selain itu dalam folder res, harus diimplementasikan sub-folder baru yang bernama raw.

**2.2.6 SELECTABLE BACKGROUND MUSIC AND PREVIEW**

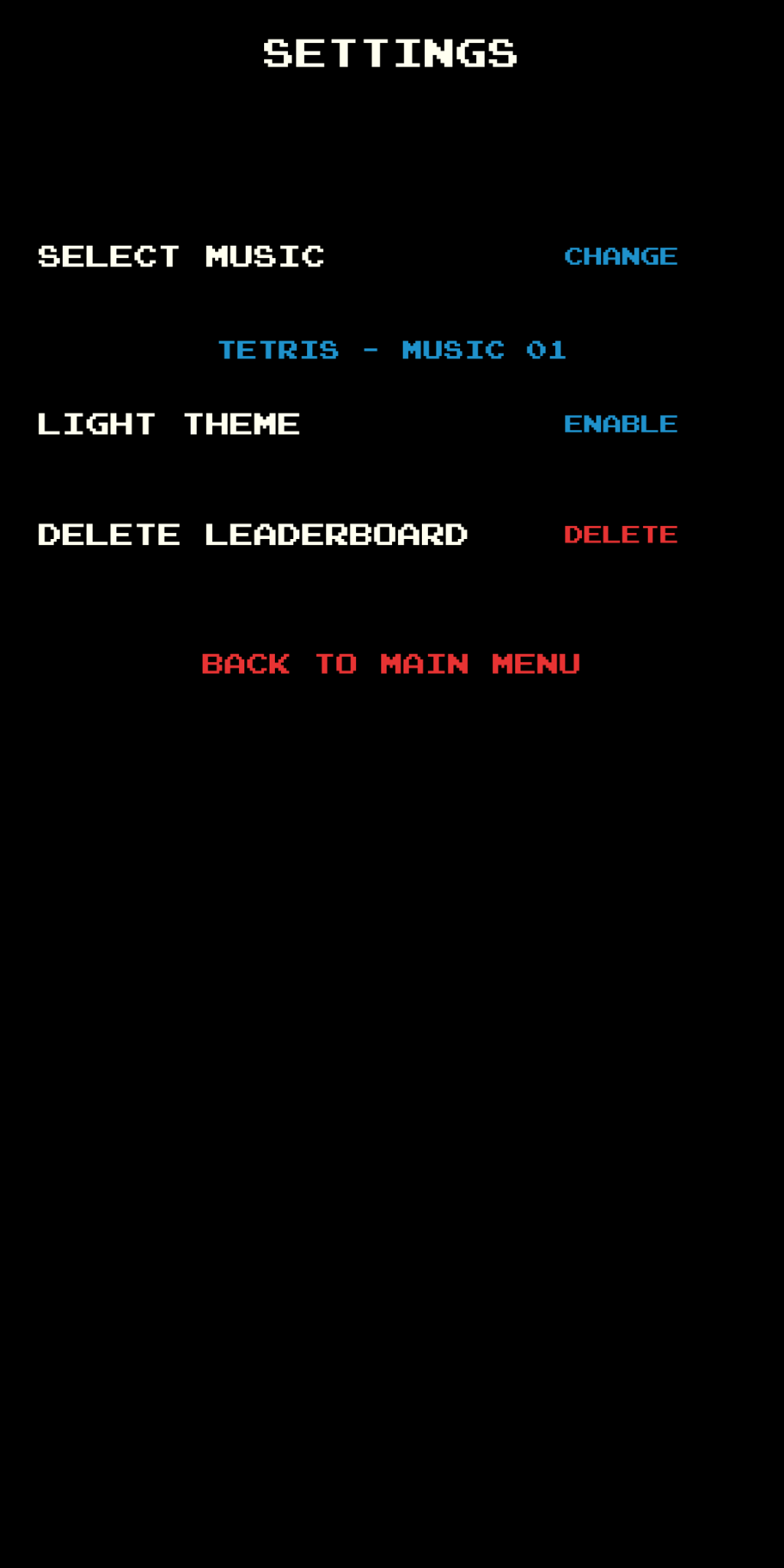
Fitur ini merupakan ekspansi dari fitur dari poin 2.2.5 dimana user dapat memilih lagu yang ingin diputar. Terdapat 5 buah lagu yang tersedia dalam aplikasi ini yang terdiri dari:

* Tetris – Music 01
* Lego Island OST – Mama Papa Brickolini
* Star Fox – Corneria
* DOOM – E1M1
* Rolling Down The Street, In My Katamari

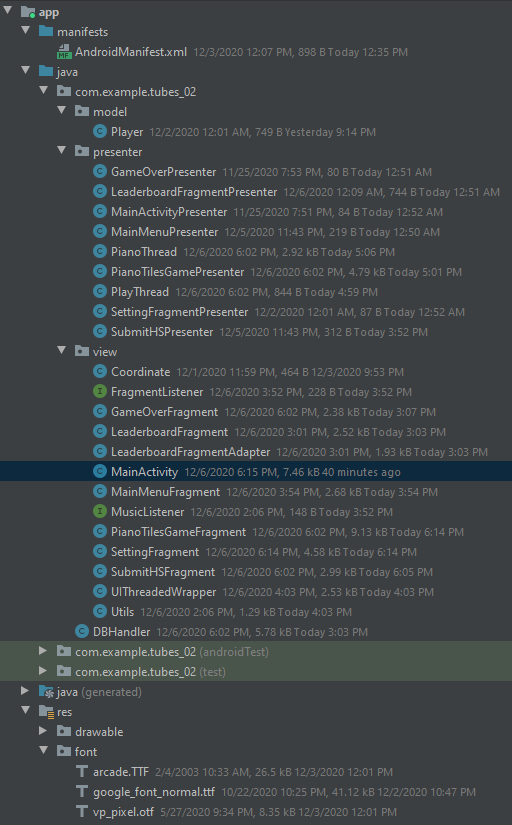
Untuk dapat mengubah lagu, Anda perlu menekan tombol dengan tulisan teksnya “CHANGE” kemudian previewnya akan menampilkan judul lagu yang sesuai dengan yang sedang diputar.

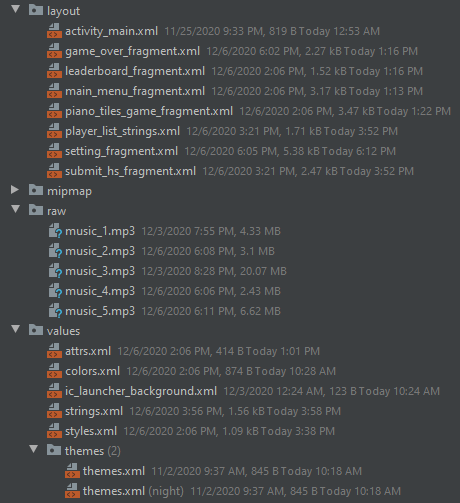
**2.2.7 SUBMIT SCORE**

Jika Anda dapat masuk ke dalam 10 besar dalam leaderboard, Anda akan muncul di laman ini. Halaman ini akan memberikan masukan berupa nama saja. Ketika Anda telah selesai dalam mengisi input, Anda dapat menekan tombol submit score untu merilis skor Anda. Anda akan dialihkan ke halaman Leaderboard untuk melihat skor Anda. Anda tidak akan berada dalam halaman ini jika Anda tidak dapat skor dengan skor minimal dari TOP 10 Leaderboard, Anda akan mendapatkan halaman Game Over.

**2.2.8 DELETE LEADERBOARD**

Delete Leaderboard adalah fitur tambahan untuk menghapus SELURUH data leaderboard, termasuk yang tidak masuk di leaderboard. Fitur ini hanya dapat diakses di SettingsFragment saja dan letaknya berdekatan dengan Light Theme ( lihat gambar Settings Fragment di poin 2.2.2 )

**2.3 Struktur Program**

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Struktur program yang kami buat menggunakan arsitektur Model View Presenter atau (MVP) , Model ini berisikan sebuah program java yang bernama Player.java Model ini berfungsi sebagai objek entitas dalam sebuah aplikasi. Dalam hal ini, Player.java menjadi entitas objeknya. Kemudian ada yang namanya *Presenter*. *Presenter* ini dijadikan sebagai “jembatan” antara *Model* dan *View*. Presenter dalam hal ini dijadikan sebagai *interface* antara *Model* dan *View*.

Di luar folder Arsitektur MVP ini, terdapat sebuah *file* yang bernama DBHandler.java yang isinya meng-*handle* *database* sekaligus juga menjadi *storage* dalam menyimpan data.

Untuk di bagian section folder *res*, terdapat beberapa *folder* yang dibuat dalam proyek tugas besar ini. Namun, *folder* yang akan dijelaskan dalam dokumentasi ini hanya dibatasi di folder *drawable, layout, font*, *values,* dan *raw* saja.

Drawable dalam ini berisikan berbagai macam gambar (spesifiknya adalah *vector images*) yang digunakan untuk memberikan ilustrasi atau gambar untuk beberapa button yang memerlukan gambar. Dalam program yang kami buat, kami memasukan 2 buah gambar yang bertipe gif yang berada pada main menu dan game over fragment.

*Layout* dalam ini berisikan struktur dan tatap muka dari aplikasi itu sendiri. Layout ini menjadi bagian yang paling krusial sekaligus penting dalam proyek ini karena *layout* ini sangat berhubungan dengan interaksi antar aplikasi dengan pengguna ( asumsikan manusia ) secara langsung.

*Font* dalam ini hanyalah sekadar untuk mengganti tipe *font* aplikasi agar aplikasi tidak bosan atau terkesan biasa saja dalam segmentasi pemilihan *font* tulisan. Kami memilih *font* Retro nama aslinya *Arcade*. Nama yang terdapat di *file* tersebut sengaja kami ganti karena untuk memudahkan *development* saja.

Raw sama seperti folder drawable, maupun font, untuk tujuannya yaitu menyimpan file-file tertentu kecuali Raw menyimpan file berupa music ( .mp3 ). Folder ini kemudian akan terpakai ketika mediaPlayer ingin memutar lagu dengan memanggil R.raw.<file musik yang ingin Anda putar>

**2.4 *BUG* DAN *GLITCH* YANG TERDAPAT DI APLIKASI *PIANO TILES***

**REFERENSI**

**Fonts**

https://developer.android.com/guide/topics/ui/look-and-feel/fonts-in-xml

**App Icons**

https://developer.android.com/studio/write/image-asset-studio

**GIF Decoder**

https://www.tutorialspoint.com/how-to-display-animated-gif-images-in-android

**Thread**

https://developer.android.com/reference/java/lang/Thread

**CountDownTimer**https://developer.android.com/reference/android/os/CountDownTimer