



Music Player Application

صدیقه سادات غنی

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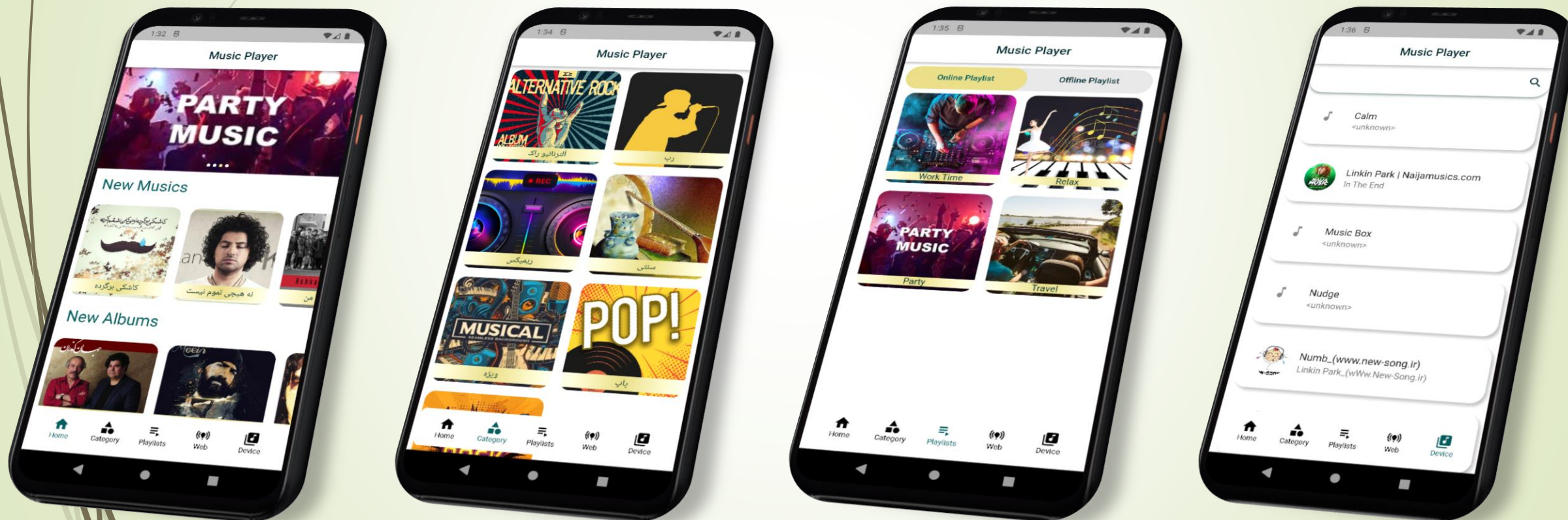


Contents



- 1. Introduction to Music Player
- 2. Features of the Music Player
- 4. User Interface
- 5. Technical Details
- 6. Challenges and Solutions
- 7. References

Introduction



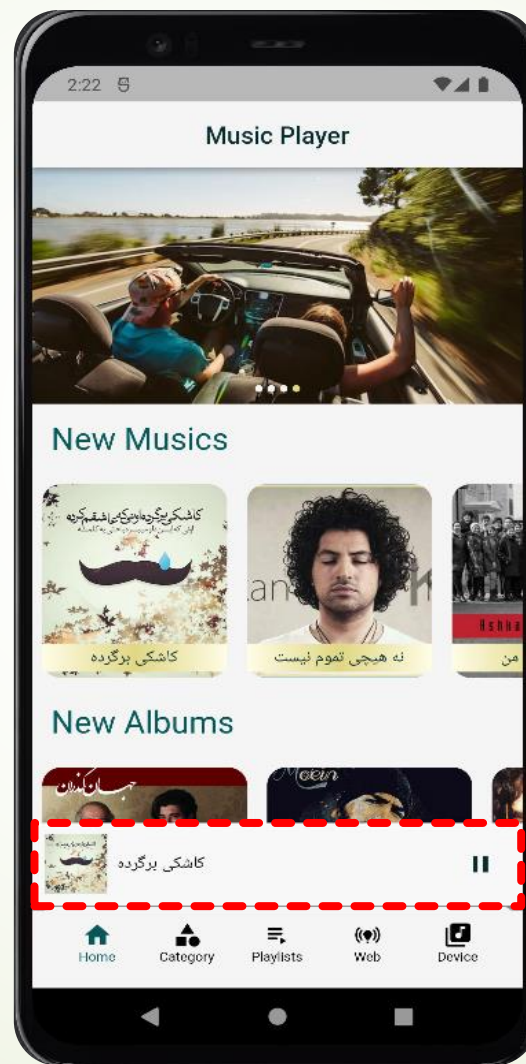
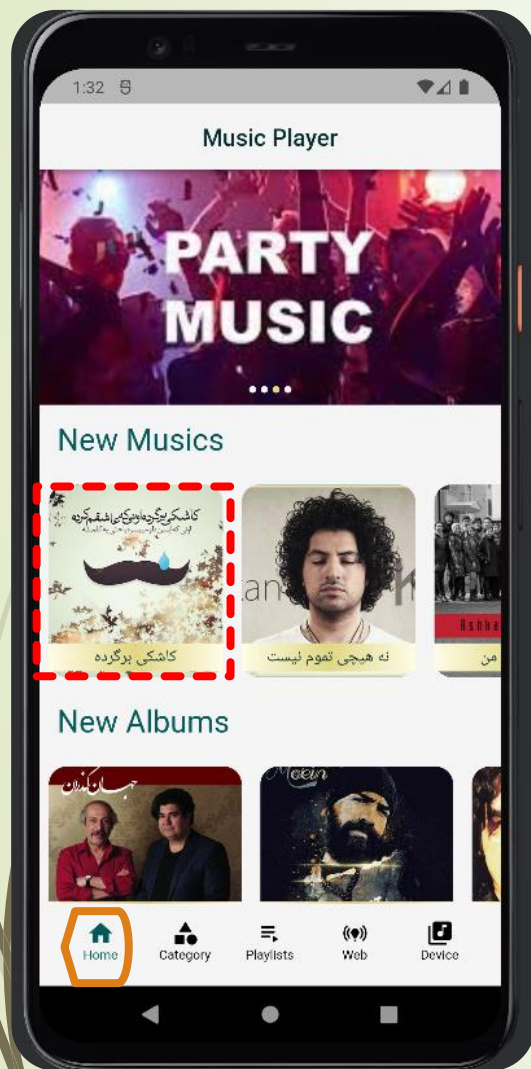


Features

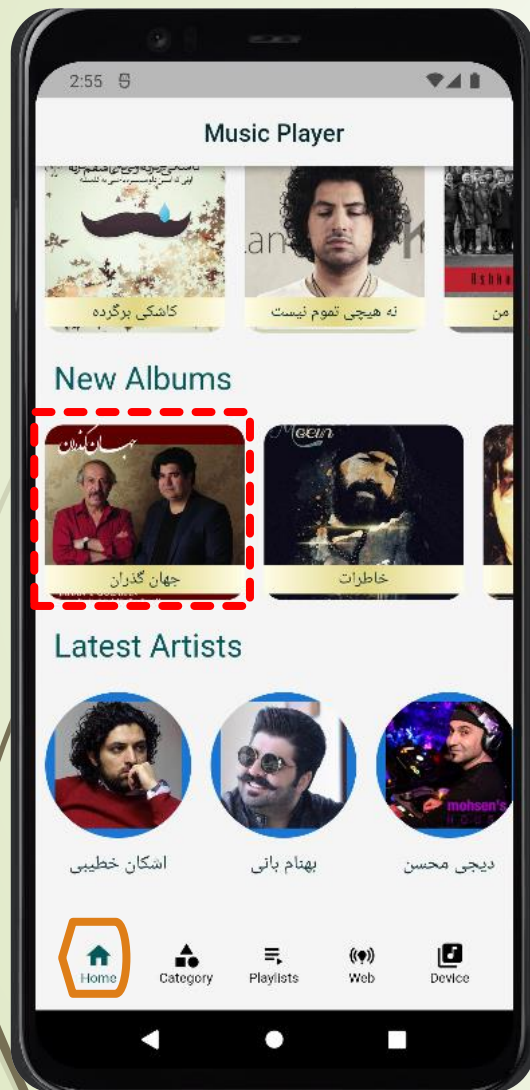


- ▶ Play music from website and device storage
- ▶ Show online Playlists and their songs
- ▶ Show online Albums and their songs
- ▶ Show online Artists and their songs
- ▶ Show online Categories and their songs
- ▶ Show the list of online music website
- ▶ Capability to enter your own music website
- ▶ Capability to create playlist for device songs
- ▶ Show device storage songs

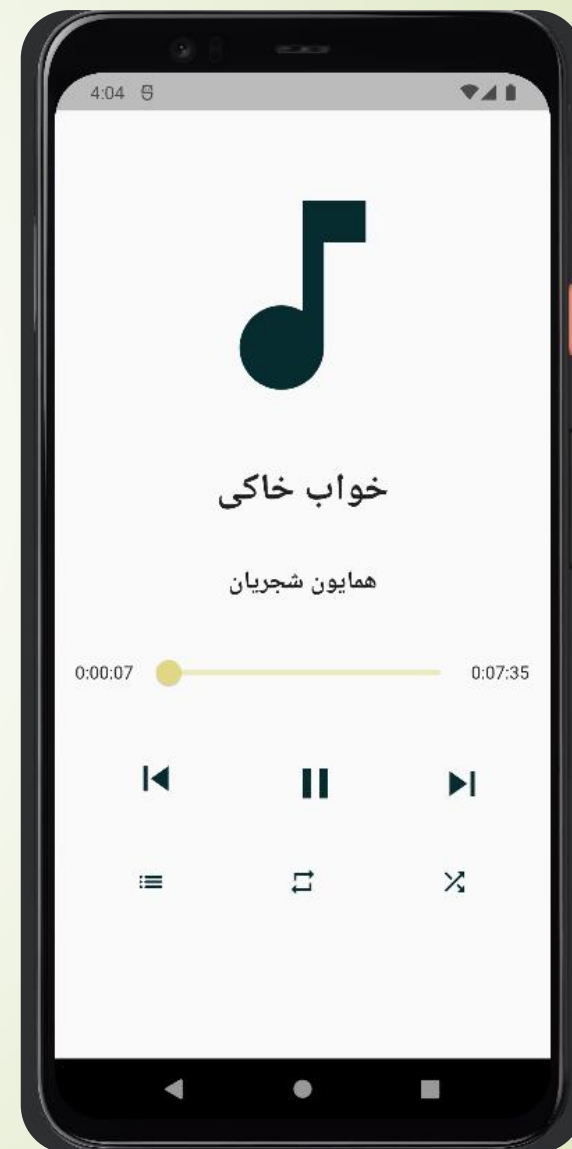
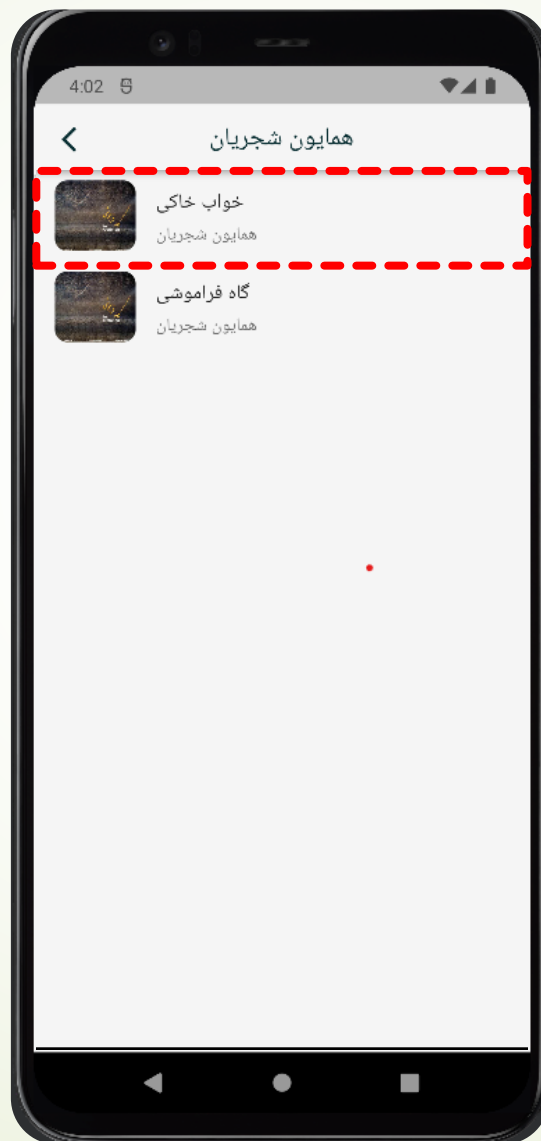
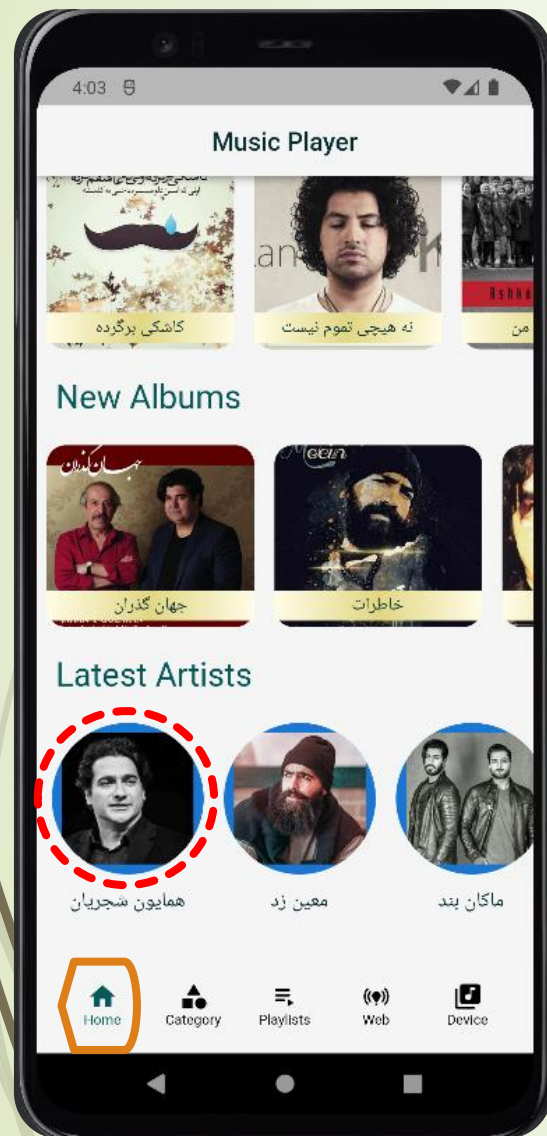
User Interface



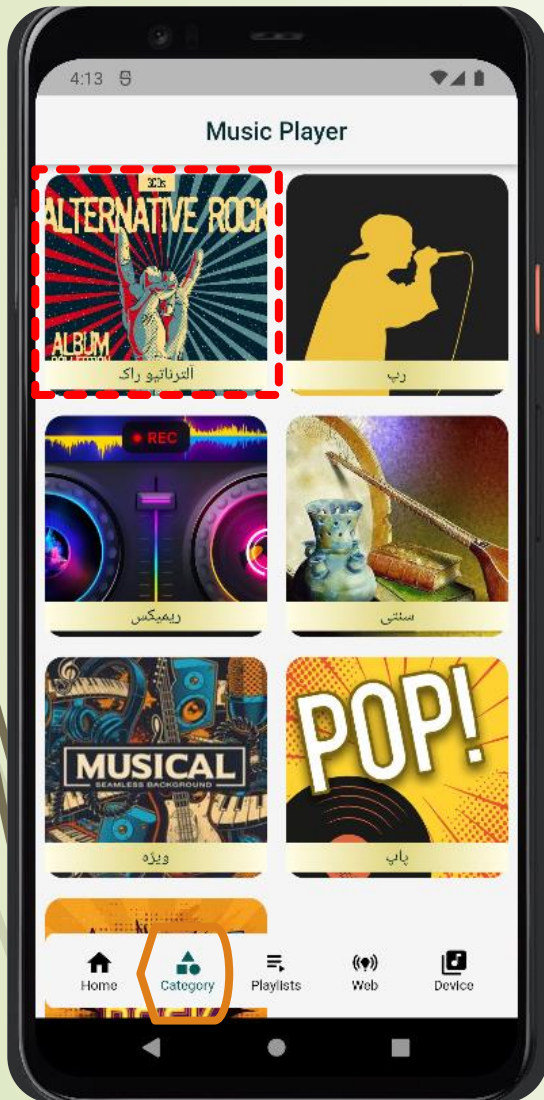
User Interface



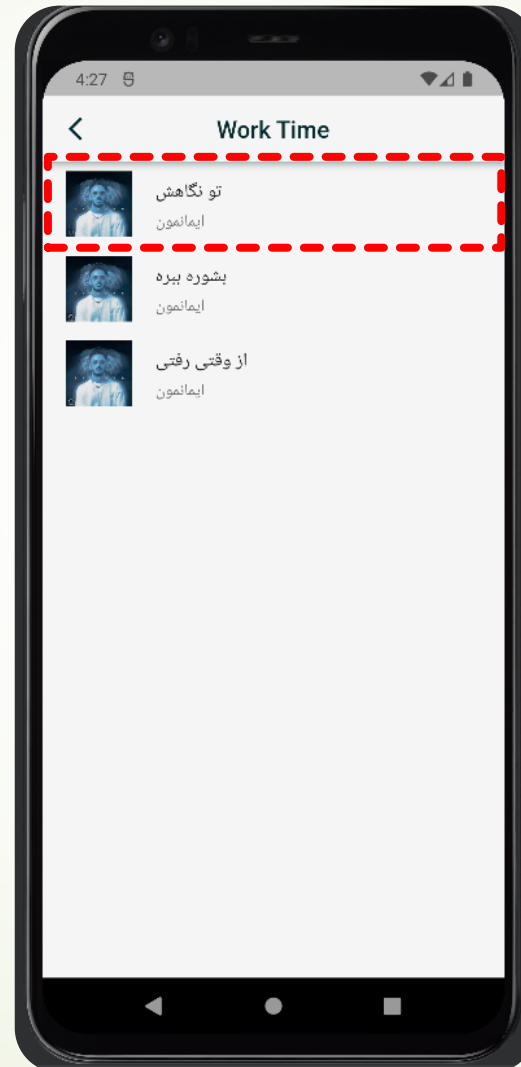
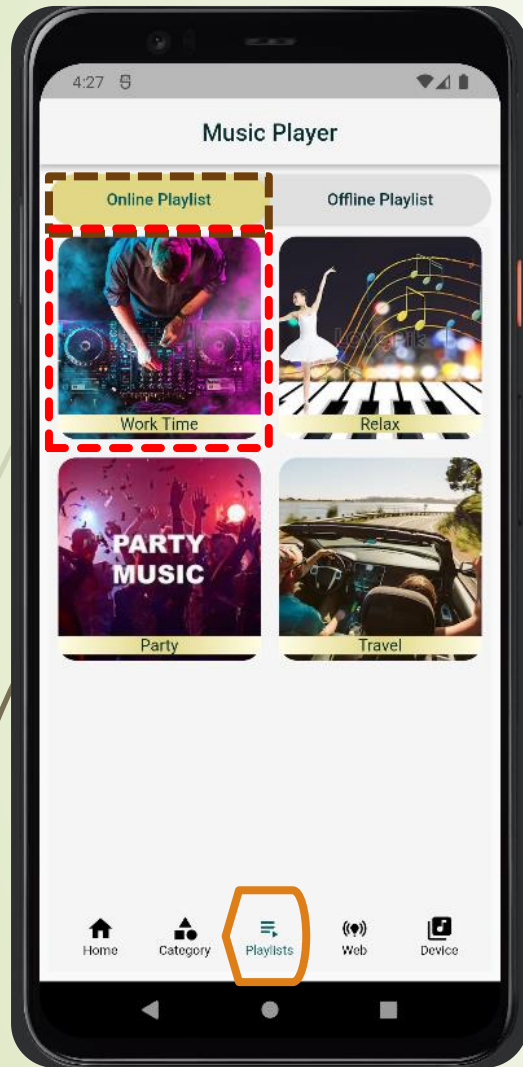
User Interface



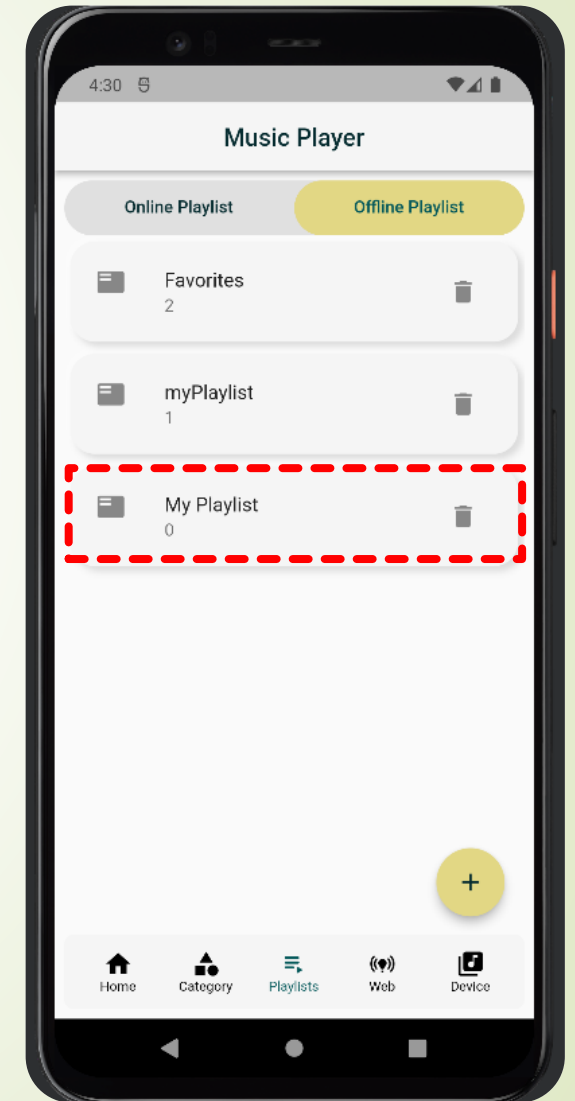
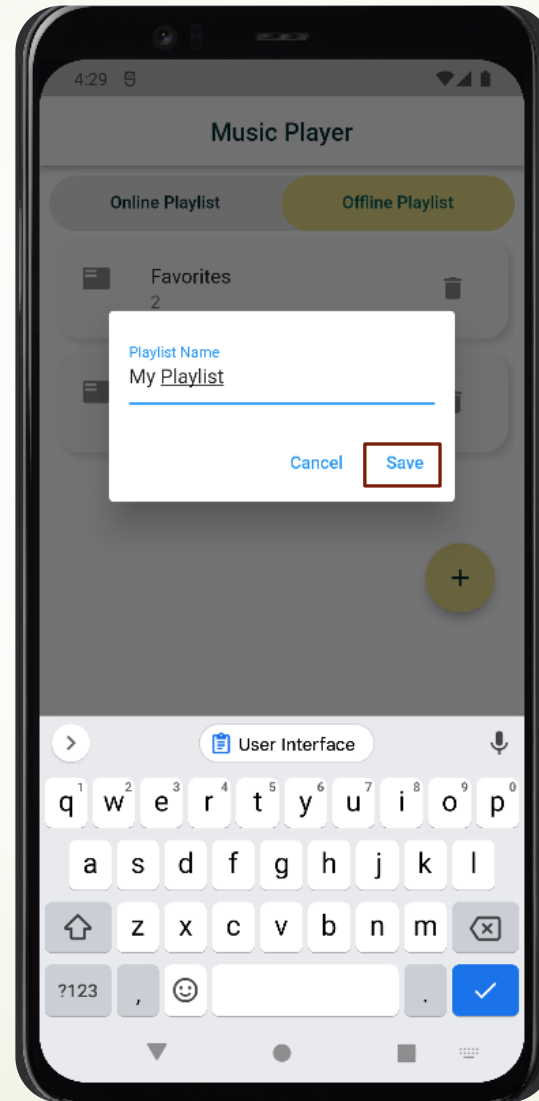
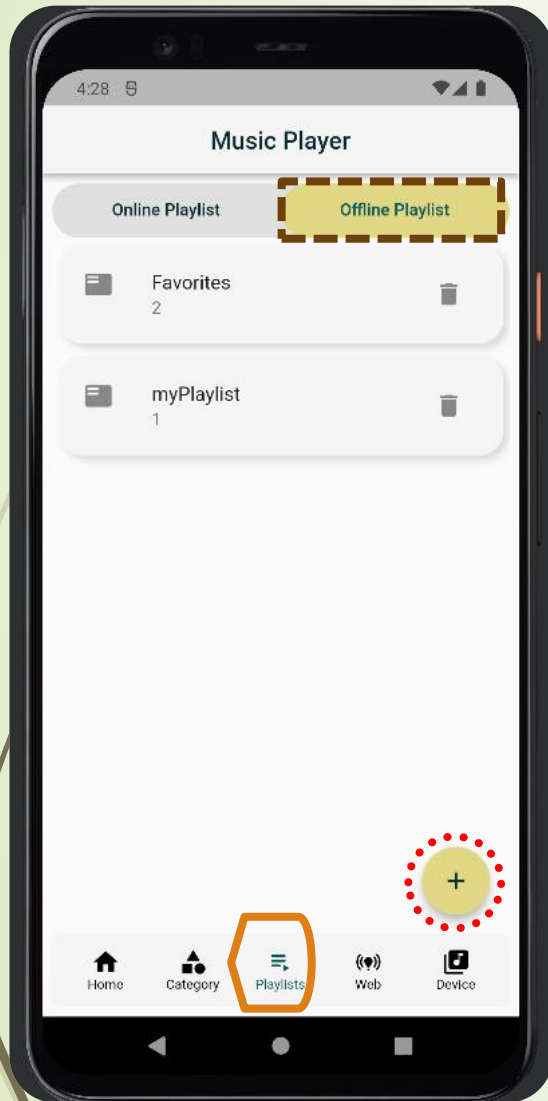
User Interface



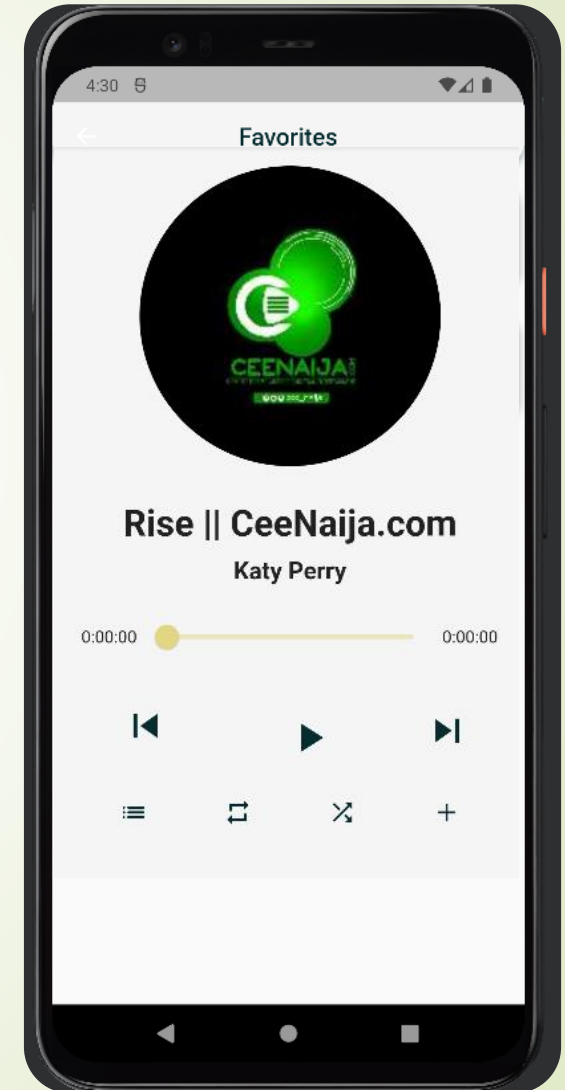
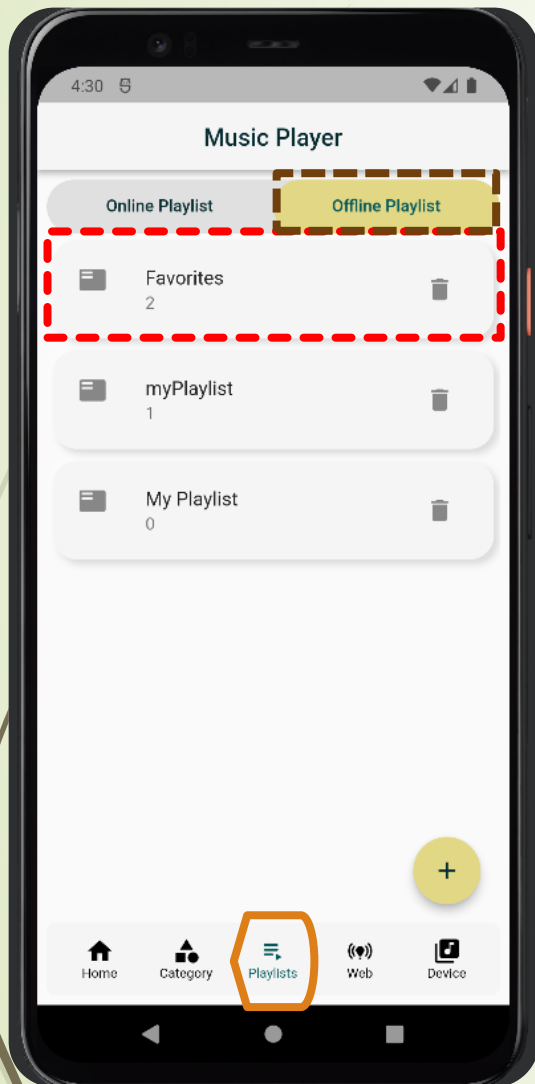
User Interface



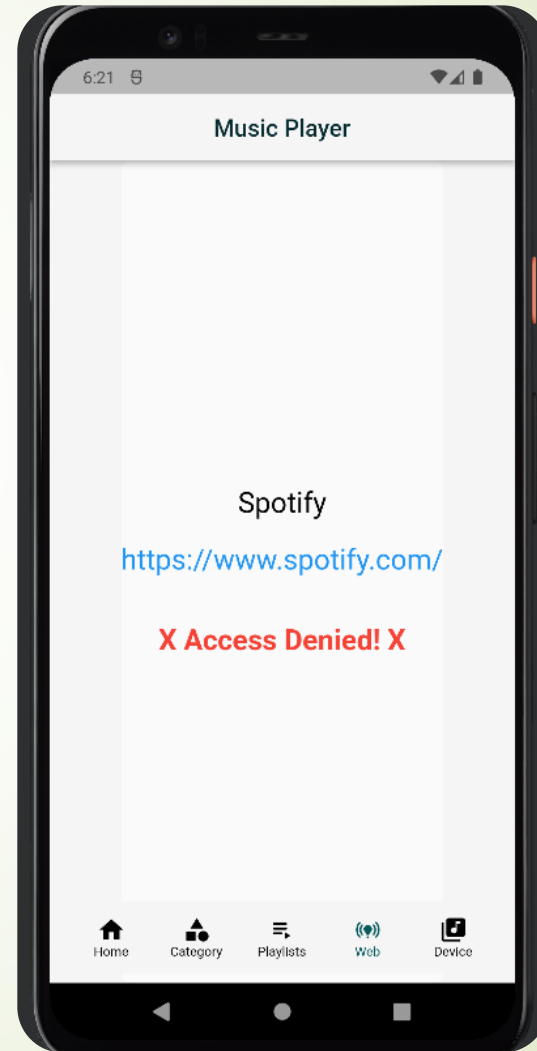
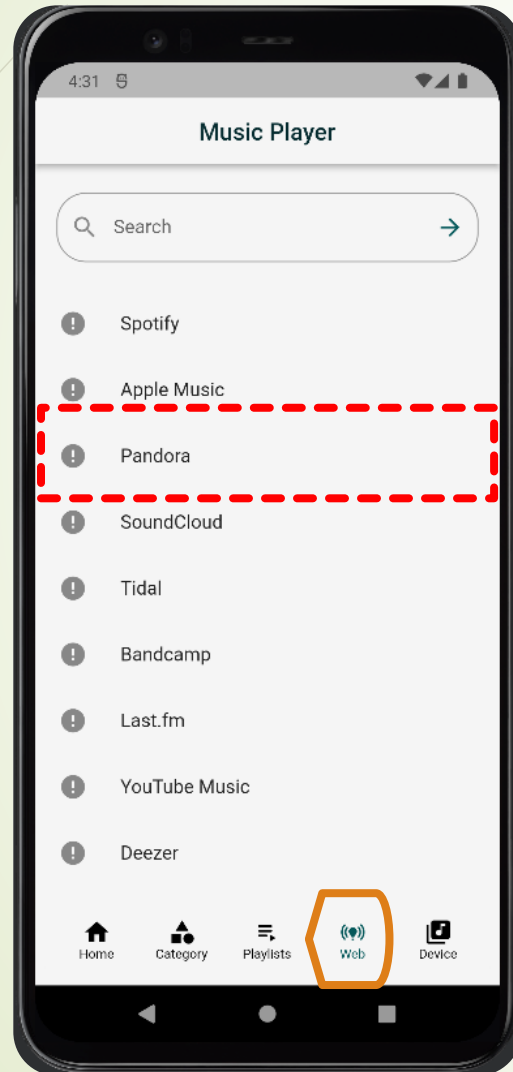
User Interface



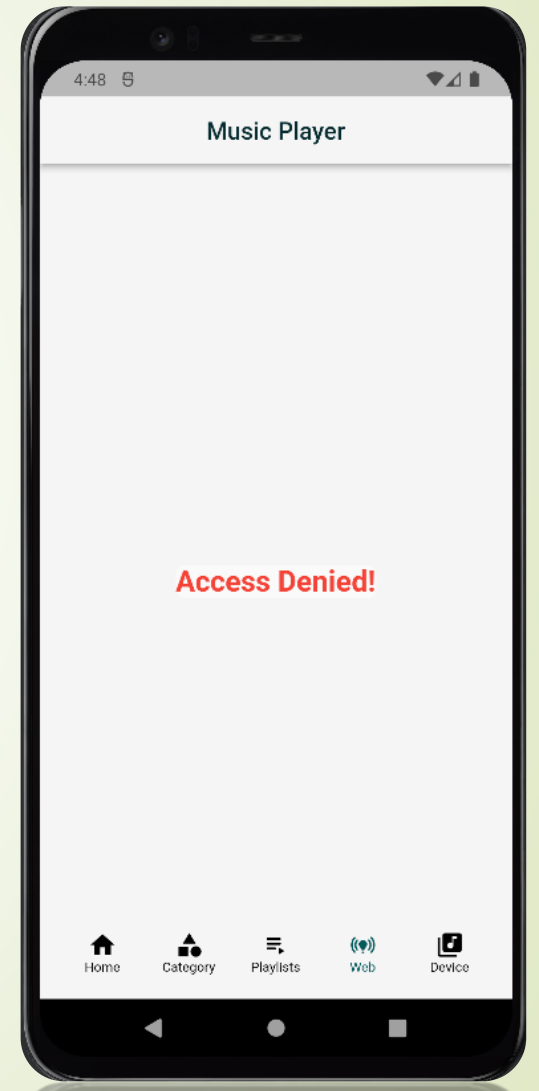
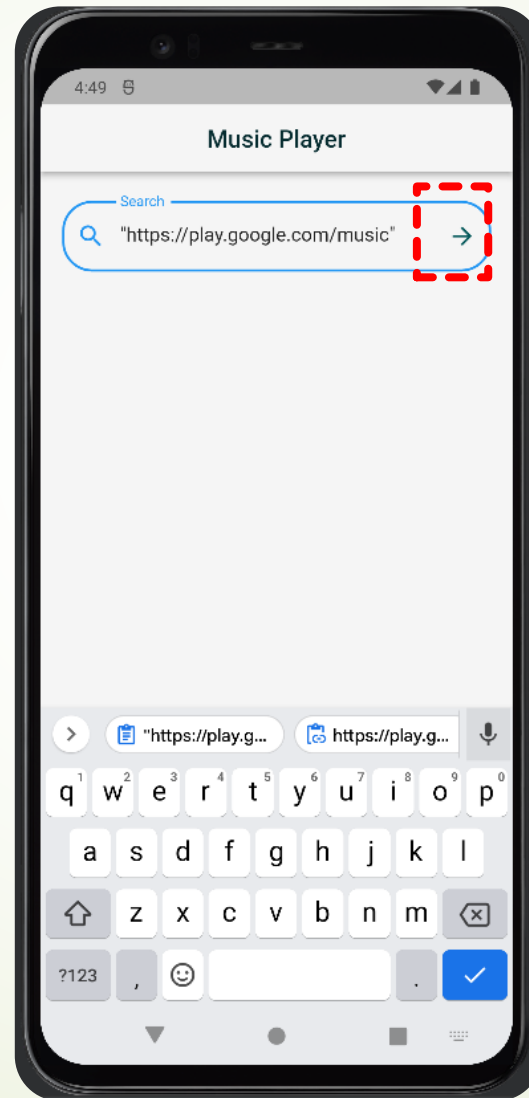
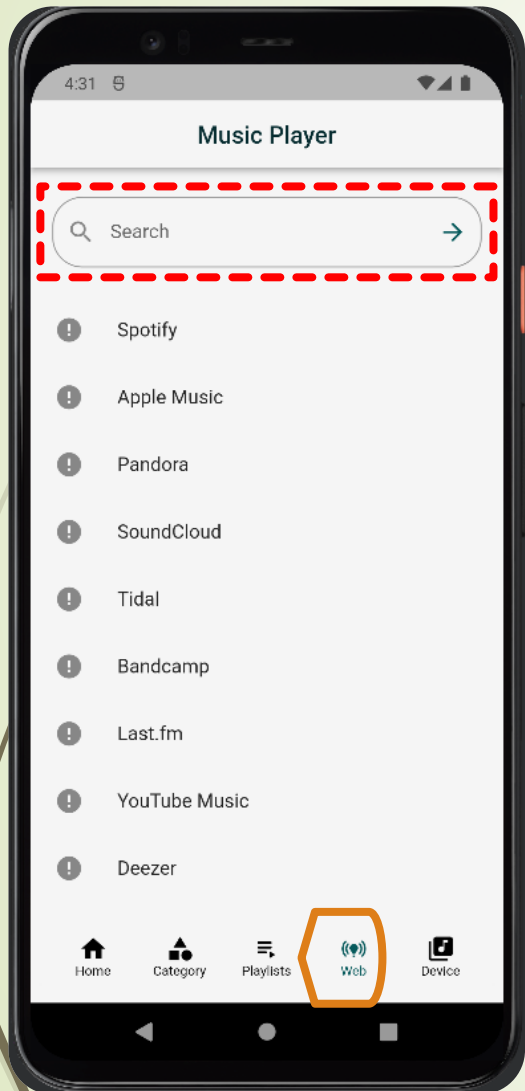
User Interface



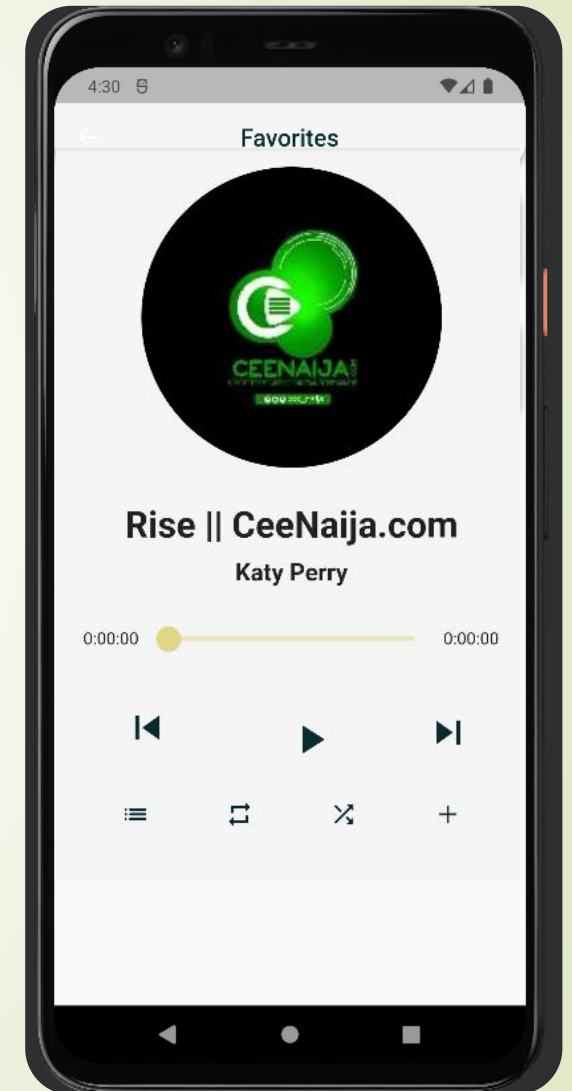
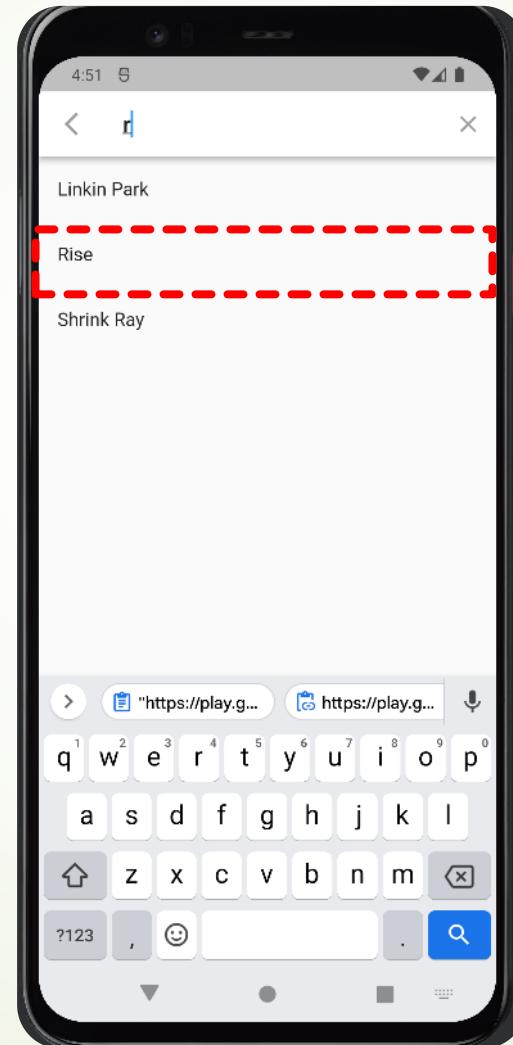
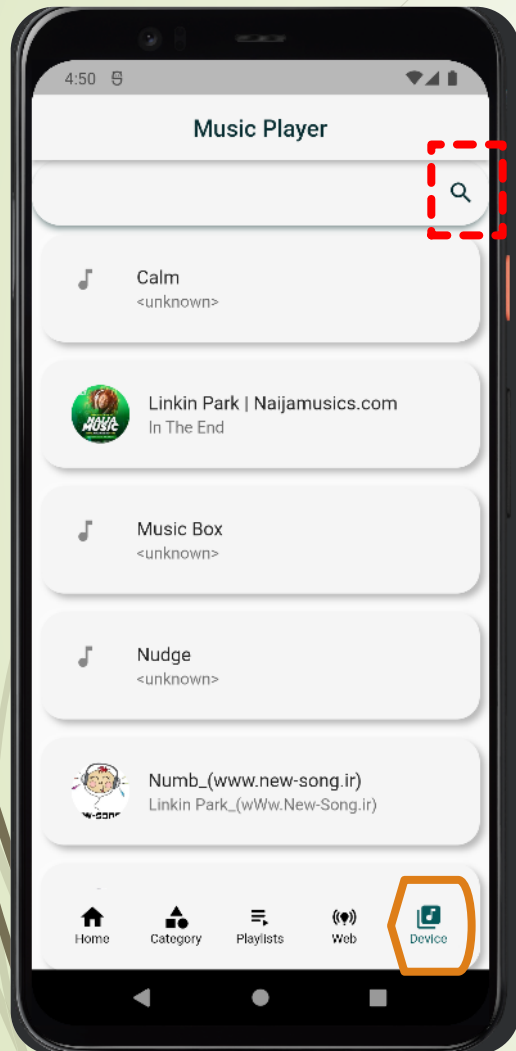
User Interface



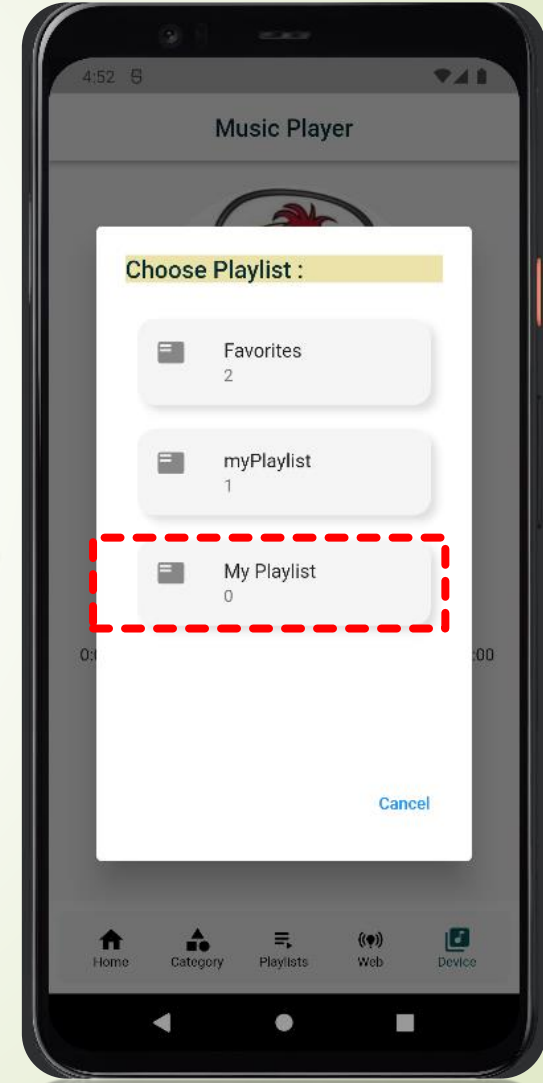
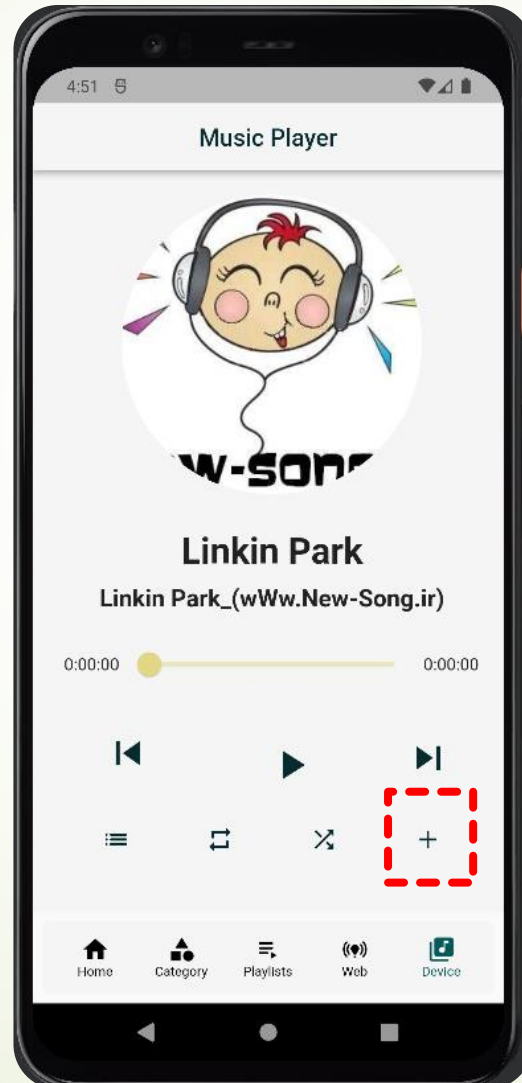
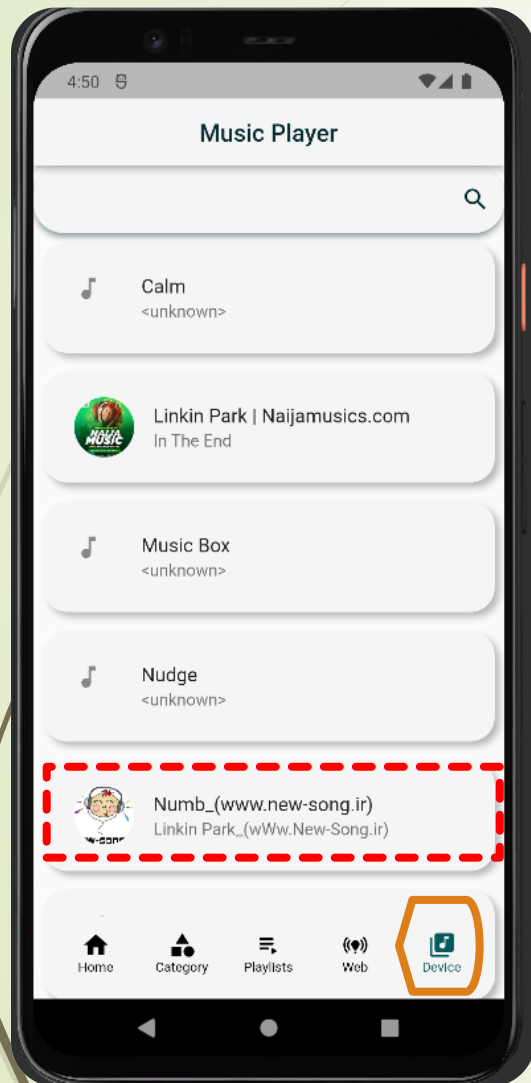
User Interface



User Interface



User Interface



Technical Details

Network Connection

```
part 'Rest_Client.g.dart';

@RestApi(baseUrl: 'http://mobilemasters.ir/apps/radiojavan/')
abstract class Rest_Client{

  factory Rest_Client(Dio dio, {String baseUrl}) = _Rest_Client;

  @GET('api.php?latest')
  Future<Latest_Music_Model> getLatestMusics();

  @GET('api.php?album_list')
  Future<Album_Base_Model> getAlbums();

  @GET('api.php?playlist')
  Future<Playlist_Base_Model> getPlaylists();

  @GET('api.php?recent_artist_list')
  Future<Artist_Base_Model> getRecentArtists();

  @GET('api.php?cat_list')
  Future<Category_Base_Model> getCategories();
```

Query All Songs

```
@GET('api.php')
Future<Latest_Music_Model> getMusicsByCategory(@Query("cat_id") String id);

@GET('api.php')
Future<Latest_Music_Model> getMusicsByAlbum(@Query("aid") String id);

@GET('api.php')
Future<Latest_Music_Model> getMusicByPlaylists(@Query("pid") String id);

@GET('api.php')
Future<Latest_Music_Model> getMusicByArtists(@Query("mp3_artist") String name);
```

Query Special Songs

Technical Details

Base Music Model, connecting with the Network (Rest Client) to get Music Model variables and parse them to JSON or Serialization from it.

Other models such as ArtistModel, AlbumModel, CategoryModel, PlaylistModel and LatestMusicModel have the same thing.

```
Music_Model _$Music_ModelFromJson(Map<String, dynamic> json) => Music_Model(  
  json['id'] as String?,  
  json['cat_id'] as String?,  
  json['mp3_title'] as String?,  
  json['mp3_url'] as String?,  
  json['mp3_thumbnail_b'] as String?,  
  json['mp3_thumbnail_s'] as String?,  
  json['mp3_duration'] as String?,  
  json['mp3_artist'] as String?,  
  json['mp3_description'] as String?,  
  json['cid'] as String?,  
  json['category_name'] as String?,  
  json['category_image'] as String?,  
  json['category_image_thumb'] as String?,  
);  
  
Map<String, dynamic> _$Music_ModelToJson(Music_Model instance) =>|  
  <String, dynamic>{  
    'id': instance.id,  
    'cat_id': instance.cat_id,  
    'mp3_title': instance.mp3_title,  
    'mp3_url': instance.mp3_url,  
    'mp3_thumbnail_b': instance.mp3_thumbnail_b,  
    'mp3_thumbnail_s': instance.mp3_thumbnail_s,  
    'mp3_duration': instance.mp3_duration,  
    'mp3_artist': instance.mp3_artist,  
    'mp3_description': instance.mp3_description,  
    'cid': instance.cid,  
    'category_name': instance.category_name,  
    'category_image': instance.category_image,  
    'category_image_thumb': instance.category_image_thumb,
```



Challenges and Solutions

Challenges:

- Not Playing Music in Android Studio

Solutions:

- Add the following code to the AndroidManifest.xml file

```
android:name="androidx.multidex.MultiDexApplication"
```

Challenges and Solutions

Challenges:

- Accessing to Device Storage Songs

Solutions:

- Ask user to access the storage with the following codes

```
void requestStoragePermission() async {  
  // only if the platform is not web. (web has no  
  permission)  
  if(!kIsWeb){  
    bool permissionStatus = await  
_audioQuery.permissionsStatus();  
    if(!permissionStatus)  
      await _audioQuery.permissionsRequest();  
  }  
  // ensured build methods is called  
  setState(() {  
  
    });  
}
```

References

- <https://github.com/Sky-RV/Music-Player>
- https://www.youtube.com/watch?v=UdJ9Ifjptcg&list=PLhGeZ1SOK_3ARkBKRnVjDDZmv2MDi_0N5&index=2
- <https://www.youtube.com/watch?v=aZiuSBpnU5g>
- https://www.youtube.com/watch?v=otIRH2HIFoY&list=PL0kMjh_00eNdleGLZtd9IIXMioypkgCiI
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- <https://www.youtube.com/watch?v=PnjeNjCq0k4>
- <https://www.youtube.com/watch?v=T4yeX0uGpow>
- https://www.youtube.com/results?search_query=online+music+player+with+flutter
- <https://www.youtube.com/watch?v=QKqLvy7uqCE>
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- <http://mobilemasters.ir/apps/radiojavan/index.php>
- <https://stackoverflow.com/questions/50713888/how-to-show-image-from-network-in-flutter-boxdecoration>
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- https://pub.dev/packages/flutter_image_slideshow/install
- https://pub.dev/packages/flutter_text_field_fab/example
- https://pub.dev/packages/searchable_listview
- <https://flutterawesome.com/flutter-plugin-used-to-query-audios-songs-infos-from-device-storage/>
- https://pub.dev/packages/on_audio_query/versions/2.1.1
- <https://api.flutter.dev/flutter/widgets/GridView-class.html>
- <https://android-learn.ir/>