

# Music Player App

## Arrow Functions

### 1. Simple Arrow Function Conversion

- **Objective:** Convert a traditional function into an arrow function.
- **Exercise:** Given a function `getSongTitles` that returns an array of all song titles in your music player, convert this function into an arrow function.
- **Initial Code:**

```
function getSongTitles(songs) {  
  return songs.map(song => song.title);  
}
```

### 2. Control Flow in Arrow Functions

- **Objective:** Understand how to use control flow statements (like if-else) in arrow functions.
- **Exercise:** You have a function `getSongGenre` that checks the genre of a song and returns a string accordingly. Convert this function into an arrow function.
- **Initial Code:**

```
function getSongGenre(genre) {  
  if (genre === "Rock") {  
    return "It's a Rock song";  
  } else if (genre === "Pop") {  
    return "It's a Pop song";  
  } else {  
    return "Genre not found";  
  }  
}
```

### 3. Arrow Functions with Multiple Operations

- **Objective:** Learn how to perform multiple operations in arrow functions before returning a value.

- **Exercise:** Given a function `getTotalPlaylistDuration` that takes an array of songs, each with a `duration` property, calculates the total duration of all songs, and returns a string. Convert this function into an arrow function.
- **Initial Code:**

```
function getTotalPlaylistDuration(songs) {  
  let totalDuration = 0;  
  for (let i = 0; i < songs.length; i++) {  
    totalDuration += songs[i].duration;  
  }  
  return 'Total playlist duration is ' + totalDuration + '  
minutes';  
}
```

#### 4. Arrow Functions as Callbacks

- **Objective:** Understand how arrow functions can be used as callbacks.
- **Exercise:** Your music player sorts songs by their duration before playing. Currently, it uses a traditional function for sorting. Convert this sorting function into an arrow function.
- **Initial Code:**

```
const sortedSongs = songs.sort(function(a, b) {  
  return a.duration - b.duration;  
});
```

#### 5. Implicit Return with Arrow Functions

- **Objective:** Understand the concept of implicit return in arrow functions.
- **Exercise:** There's a function `getArtistNames` which returns an array of all artist names. Convert this function into a single-line arrow function using the implicit return feature.
- **Initial Code:**

```
function getArtistNames(songs) {  
  return songs.map(function(song) {  
    return song.artist;  
  });  
}
```

