CHAPTER 5
IMPLEMENTATION AND TESTING

5.1 Implementation

This project using Android Studio, and this project need a KEY from Youtube Data API. to get the KEY, need registration at the address https://console.developers.google.com/. This KEY serve as the link of the application to retrieve data from Youtube. In this project KEY is saved in the activity “SimpanKey.Java”.

```java
public class SimpanKey {
    public static final String API_URL = "https://www.googleapis.com/youtube/v3/";
    public static final String API_KEY = "AIzaSyAfuFunAaNxV7KpvnBXoyqxqMNRm_B2nc8";
}
```

After getting the KEY from Youtube Data API, this project retrieves the data parts in the Youtube Data API, this project need part of snippet, part of contentDetails, and part of statistic. In each part it has its own items, for parts of snippet has title, channelId, and description. For part of contentDetails has viewers, like, unlike. For part of statistic has duration items. The parts is in will keep in activity “MainActivity.java”.

Illustration 5.1: MainActivity 1
After the parts was taken, and then make array to this project keep the items into Video.java

Illustration 5.2: Video.java

The next step, this project search ID of the category and called ID of the category. ID Category can be around in the https://developers.google.com/youtube/v3/docs/videoCategories ID of the Music is 10, ID of the News is 25, and ID of Sport is 17. After get ID of Category the next step is calling ID Category and access ID Category. ID Categories on save and call in the activity “MainActivity.java”
To the process of a filter user have to input keyword the title video first in mButtonSearch and determine years publish videos to in show, after that next to radio button to choose category will be show in in projects there are 3 categories music, news and sport. Next step to spinner an order to user choose or order video that appears based on viewers most or from date, and the last to the switchSearch to turn a filter children that video to a category above 18 + not in show.
5.2 Testing

After the creation of the project was completed, then do the testing project.

From the picture above is the view of the application page that has not been input by the user. To get videos, user must input first from start title keyword, choose category of music, news or sports, input publish year to get result of video in search.
In this project the user can input the keyword title, after entering the title of the next step the user can manage the video based on the selected category, ranging from music, sport, and news categories. Then user can also input the publish year of the video that will be on display, and can use order feature to display videos from viewers, and user can also activate Safe Search feature. Safe Search is a feature to filter the age category of 18+, if this feature is enabled then videos that are categorized 18+ will not appear in search results.
In the picture above is the keyword that the input is “Ular” with the Music category and publish year 2015, Safe Search ON, order by viewCount. Then the video that comes out is a video that categorized the music, and video publish year 2015 and at sort of the topmost video with viewers at most and videos with the 18+ category are not displayed.
In the picture above is the keyword that the input is “Ular” with the news category and publish year 2015, Safe Search ON, order by viewCount. Then the video that comes out is a video that categorized the news, and video publish year 2015 and at sort of the topmost video with viewers at most and videos with the 18+ category are not displayed.
In the picture above is the keyword that the input is “Ular” with the Sports category and publish year 2015, Safe Search ON, order by viewCount. Then the video that comes out is a video that categorized the sports, and video publish year 2015 and at sort of the topmost video with viewers at most and videos with the 18+ category are not displayed.
In this application, user can watching the video. For example, in the picture below with a video “Ost Legenda Ular Put..” the user simply click the video and going into the page next to watch the video on the select.

Illustration 5.9: Watching Video 1
Next will go to watch video, this project can playing video, paused the video, changed resolution of video, full screen video, etc.

Illustration 5.10: Page for Watching a Videos

After watching the video, in this application can also see the video that has already been watching earlier in the History and the video will be stored in history.
The picture above is the history to show that has been on the play by the user, and user can also remove all videos in history by clicking the menu “Delete History”
Illustration 5.13: Delete History

- Ost Legenda Ular Put... Imron Nursahit
  214167 views
  403 likes | 19 dislikes

- Man Khan & Rosalinda...
  Dikir Barat
  1261597 views
  1768 likes | 278 dislikes

- Tari Anak - Tari Ula...
  wox marwox
  13405 views
  15 likes | 8 dislikes

- Lagu Anak Anak -- Ul...
Here are the results of testing will be served in the form of table testings.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>FUNCTION</th>
<th>TESTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Searching</td>
<td>To find the keyword of the video</td>
<td>The title of video can be searched in the application</td>
</tr>
<tr>
<td>Publish Year</td>
<td>To manage video based on publish year</td>
<td>The video shown on the basis of publish year</td>
</tr>
<tr>
<td>Button category MUSIC</td>
<td>To manage video based on category of MUSIC</td>
<td>The video shown on the basis of category of music</td>
</tr>
<tr>
<td>Button category SPORT</td>
<td>To manage video based on category of SPORT</td>
<td>The video shown on the basis of category of sport</td>
</tr>
<tr>
<td>Button category NEWS</td>
<td>To manage video based on category of NEWS</td>
<td>The video shown on the basis of category of news</td>
</tr>
<tr>
<td>Button Order by ViewCount</td>
<td>To order video based on viewCount</td>
<td>The video shown on the basis of viewCount</td>
</tr>
<tr>
<td>Button Order by DATE</td>
<td>To order video based on Date</td>
<td>The video shown on the basis of date</td>
</tr>
<tr>
<td>Switch Safe Search</td>
<td>To enable Safe Search</td>
<td>Video category 18+ by not in the show</td>
</tr>
<tr>
<td>Menu History</td>
<td>To save in the History of video that has been in play</td>
<td>Video saved in the history</td>
</tr>
<tr>
<td>Delete all history</td>
<td>To delete all video in history</td>
<td>Video deleted</td>
</tr>
</tbody>
</table>