









SPECTRAFLIX

A MOVIE STREAMING AND BOOKING ANDROID APP







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Acknowledgement



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Introduction



Introducing SpectraFlix, a movie streaming and booking application crafted using Java and XML within the Android development environment. SpectraFlix offers a seamless and flexible platform for movie enthusiasts, providing multiple ways to enjoy films. Users can stream movies directly from WebView, input URLs, or access movies stored on their devices. Additionally, trailers can be viewed effortlessly through a built-in YouTube WebView.

The booking feature in SpectraFlix sets it apart, allowing users to browse available films and select seats using a visually interactive interface, making the reservation process intuitive and engaging. Built with performance and user experience in mind, the app's robust backend and fluid design ensure a smooth, responsive experience.

Furthermore, SpectraFlix enables users to expand their movie library by adding new films for both streaming and booking, giving them full control over their entertainment.

Software Requirements



Operating System:

- Windows(Android Studio) / Android(AIDE) : For Development
- o Android 8.1.0 or above [Tested by the developer]: For testing and deployment

Development Tools:

- Java Development Kit (JDK): Version 6 or higher (Tested)
- AIDE : Latest Stable Version
- o Android Studio: Latest Stable Version
- Gradle

Languages:

- Java : For the app's backend
- XML: For designing the user interface (UI)

Third Party Tools:

o YouTube IFrame API: For embedding trailers via WebView

Version Control:

- Git: For version control and code management
- Github: To store the project repository

Device Requirements (For running the application):

Android phone or tablet with sufficient storage and processing capability (minimum 2
 GB RAM, 16 GB storage recommended)



MainActivity.java



```
package com.app.spectraflix;
                                                                  TextView textView2 =
import android.app.Activity;
                                                    findViewById(R.id.category label 2);
import android.os.Bundle;
                                                           textView2.setTypeface(customFont);
import android.content.Intent;
import android.view.View;
import android.widget.ImageButton;
                                                                  TextView textView3 =
                                                    findViewById(R.id.category label 3);
android.graphics.drawable.ColorDrawable;
import android.graphics.Color;
                                                           textView3.setTypeface(customFont);
import android.app.ActionBar;
import android.widget.ImageButton;
                                                                  TextView textView4 =
import android.widget.ImageView;
                                                    findViewById(R.id.category label 4);
import android.widget.LinearLayout;
import android.view.Gravity;
                                                           textView4.setTypeface(customFont);
import android.graphics.Typeface;
import android.widget.TextView;
                                                                  ImageButton button2 =
import android.util.DisplayMetrics;
                                                    findViewById(R.id.icon button2);
import android.net.Uri;
                                                                  button2.setOnClickListener(new
import java.io.File;
                                                    View.OnClickListener()
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
                                                                          @Override
import android.Manifest;
                                                                         public void
import android.content.pm.PackageManager;
                                                   onClick(View v)
import java.util.List;
                                                                                 Intent intent =
public class MainActivity extends Activity
                                                 new Intent();
                                                           intent.setClass(getApplicationContext(
       protected void onCreate(Bundle
                                                  ), activity2.class);
savedInstanceState)
                                                           startActivity(intent);
       super.onCreate(savedInstanceState);
                                                           overridePendingTransition(0, 0);
              setContentView(R.layout.main);
              ActionBar actionBar =
                                                                  ImageButton button3 =
getActionBar();
                                                    findViewById(R.id.icon_button3);
              if(actionBar != null)
                                                                  button3.setOnClickListener(new
                                                    View.OnClickListener()
       actionBar.setBackgroundDrawable(new
ColorDrawable(Color.parseColor("#ACD5C2")));
                                                                          @Override
                                                                          public void
                                                    onClick(View v)
(checkSelfPermission(Manifest.permission.READ_
EXTERNAL STORAGE) !=
                                                                                 Intent intent =
PackageManager.PERMISSION GRANTED)
                                                    new Intent();
                     requestPermissions(new
String[]{Manifest.permission.READ EXTERNAL STO
                                                           intent.setClass(getApplicationContext(
RAGE } , 1);
                                                    ), activity3.class);
              Typeface customFont =
                                                           startActivity(intent);
Typeface.createFromAsset(getAssets(),
"fonts/nasalization.ttf");
                                                           overridePendingTransition(0, 0);
              TextView textView1 =
findViewById(R.id.category_label_1);
                                                                  DisplayMetrics displayMetrics =
```

```
getWindowManager().getDefaultDisplay()
                                                                      LinearLayout newLayout = new
.getMetrics(displayMetrics);
                                                      LinearLayout (this);
               int width =
                                                                      newLayout.setLayoutParams(new
displayMetrics.widthPixels;
                                                       LinearLayout.LayoutParams(
               DataManager dataManager =
(DataManager) getApplication();
                                                       LinearLayout.LayoutParams.WRAP CONTENT,
               List<Movie> movies =
dataManager.getMovies();
               streamingMovies categories =
                                                      LinearLayout.LayoutParams.MATCH PARENT));
new streamingMovies();
                                                              newLayout.setOrientation(LinearLayout.
               for(Movie mov : movies)
                                                      VERTICAL);
                                                              newLayout.setGravity(Gravity.CENTER);
       switch(mov.getCategory())
                                                                      ImageView movieTitleView = new
                              case 1:
                                                       ImageView(this);
                                                                      LinearLayout.LayoutParams
       categories.addAnimatedMovie(mov);
                                                       movieTitleParams = new
                                      break;
                                                      LinearLayout.LayoutParams(200, 150);
                                                                     movieTitleParams.gravity =
                              case 2:
                                                       Gravity.CENTER;
       categories.addPopularMovie(mov);
                                                              movieTitleView.setLayoutParams(movieTi
                                                       tleParams);
                              case 3:
                                                                      if (mov.getResTitleImagePath()
                                                       == -1)
       categories.addHorrorMovie(mov);
                                      break;
                                                                              try
                              case 4:
                                                                                     File file = new
                                                       File(mov.getTitleImagePath());
       categories.addDevelopersChoiceMovie(mo
                                                                                     Uri imageUri =
v);
                                                       Uri.fromFile(file);
                                      break;
                                                                                     Bitmap bitmap =
                                                       BitmapFactory.decodeStream(getContentResolver(
                                                       ).openInputStream(imageUri));
               List<Movie> animatedMovies =
                                                              movieTitleView.setImageBitmap(bitmap);
categories.getAnimatedMovies();
               List<Movie> popularMovies =
categories.getPopularMovies();
                                                                             catch(Exception e)
               List<Movie> horrorMovies =
categories.getHorrorMovies();
                                                                      }
               List<Movie>
developersChoiceMovies =
                                                                      else
categories.getDevelopersChoiceMovies();
                                                              movieTitleView.setImageResource(mov.ge
              List<Movie>[] moviesList =
                                                      tResTitleImagePath());
{animatedMovies, popularMovies, horrorMovies,
developersChoiceMovies);
               int[] scrollViews =
                                                              movieTitleView.setScaleType(ImageView.
{R.id.animated_movies_scroll_view,
                                                       ScaleType.FIT CENTER);
R.id.popular movies scroll view,
R.id.horror movies scroll view,
                                                                      ImageView moviePosterView = new
R.id.developers choice scroll view};
                                                       ImageView(this);
                                                                      LinearLayout.LayoutParams
               for(int i = 0; i < 4; i++)
                                                      moviePosterParams = new
                      for (Movie mov :
                                                      LinearLayout.LayoutParams(
                                                                              (int) Math.round(width
moviesList[i])
                                                                     moviePosterParams.gravity =
       addStreamingMovie(scrollViews[i], mov,
width);
                                                       Gravity.CENTER;
                                                              moviePosterView.setLayoutParams(movieP
       public void addStreamingMovie(int
                                                      osterParams);
scrollView, Movie mov, int width)
                                                                      if(mov.getResImagePath() == -1)
               LinearLayout parentLayout =
findViewById(scrollView);
                                                                              try
```

```
File file = new
                                                                imageButton.setImageResource(R.drawabl
File(mov.getImagePath());
                                                        e.watching);
                               Uri imageUri =
Uri.fromFile(file);
                                                                imageButton.setScaleType(ImageView.Sca
                               Bitmap bitmap =
                                                        leType.FIT CENTER);
BitmapFactory.decodeStream(getContentResolver(
).openInputStream(imageUri));
                                                                imageButton.setBackground(null);
        moviePosterView.setImageBitmap(bitmap)
                                                                        final Movie mov final = mov;
                                                                imageButton.setOnClickListener(new
                                                        View.OnClickListener()
                       catch(Exception e)
                                                                                @Override
                       { }
                                                                                public void
                                                        onClick(View v)
                else
                                                                                        Intent intent =
        moviePosterView.setImageResource(mov.g
                                                        new Intent();
etResImagePath());
                                                                intent.putExtra("Movie", mov final);
        moviePosterView.setScaleType(ImageView
                                                                intent.setClass(getApplicationContext(
.ScaleType.FIT CENTER);
                                                        ), PreviewActivity.class);
        moviePosterView.setPadding((int)
                                                                startActivity(intent);
Math.round(width * 0.05), 0, (int)
Math.round(width * 0.05), 0);
                                                                        });
               ImageButton imageButton = new
ImageButton(this);
                                                                newLayout.addView (movieTitleView);
               LinearLayout.LayoutParams
buttonParams = new
                                                                newLayout.addView(moviePosterView);
LinearLayout.LayoutParams(100, 75);
                                                                        newLayout.addView(imageButton);
               buttonParams.gravity =
Gravity.CENTER;
                                                                parentLayout.addView(newLayout);
        imageButton.setLayoutParams(buttonPara
ms);
```

BookableMovie.java



```
package com.app.spectraflix;
import java.io.Serializable;
import java.util.List;
import java.util.LinkedList;
public class BookableMovie implements Serializable
      private int resMovieTitlePath;
      private String movieName, movieTitlePath;
      public List<Cinema> cinemas = new LinkedList<Cinema>();
      public BookableMovie(String movieName, int resMovieTitlePath, String
movieTitlePath)
             this.movieName = movieName;
             this.resMovieTitlePath = resMovieTitlePath;
             this.movieTitlePath = movieTitlePath;
      public List<Cinema> getCinemas()
             return this.cinemas;
      public void addCinema(Cinema cinema)
             this.cinemas.add(cinema);
      public void removeCinema (Cinema cinema)
             this.cinemas.remove(cinema);
      public String getMovieName()
             return this.movieName;
      public String getMovieTitlePath()
             return this.movieTitlePath;
      public int getResMovieTitlePath()
             return this.resMovieTitlePath;
```

Cinema.java



```
package com.app.spectraflix;
                                                                   Runtime runtime = new
                                                     Runtime (startDateTime, endDateTime,
import java.util.List;
                                                     this.seatRowCol);
import java.util.LinkedList;
                                                                   runtimes.add(runtime);
import java.time.LocalDateTime;
                                                                   return true;
import java.io.Serializable;
import java.time.format.DateTimeFormatter;
                                                             public Runtime getRuntime(int index)
public class Cinema implements Serializable
       private String name;
                                                     this.runtimes.get(index);
       private int[] seatRowCol;
       public List<Runtime> runtimes = new
LinkedList<Runtime>();
                                                             public int getRuntimesSize()
      public Cinema (String name, int
                                                                   return this.runtimes.size();
numSeats)
     {
                                                            public boolean
              this name = name:
              this.seatRowCol =
                                                     removeRuntime(LocalDateTime start)
this.getMinRowCol(numSeats);
       }
                                                                   for (int i = 0; i <
                                                     this.runtimes.size(); i++)
       public String getName()
                                                                          Runtime runtime =
                                                     runtimes.get(i);
             return this.name;
       public List<Runtime> getRuntimes()
                                                            if(runtime.getStartDateTime().isEqual(
                                                     start))
              return this.runtimes;
                                                            runtimes remove(i):
       public boolean addRuntime(String
                                                                                  return true;
startDateTime, String endDateTime)
              DateTimeFormatter formatter =
DateTimeFormatter.ofPattern("yyyy-MM-dd
                                                                   return false;
              LocalDateTime start =
LocalDateTime.parse(startDateTime, formatter);
                                                            public int[] getMinRowCol(int num)
              LocalDateTime end =
                                                                    List<int[]> listOfFactors = new
LocalDateTime.parse(endDateTime, formatter);
                                                     LinkedList<int[]>();
               for(Runtime rt : this.runtimes)
                                                                    for(int i = 1 ; i \le num ; i++)
                      LocalDateTime startRt =
rt.getStartDateTime(), endRt =
                                                                           if(num % i != 0)
                                                                                  continue;
rt.getEndDateTime();
                                                                            else if(i == num / i)
       if((startRt.isAfter(start) &&
                                                                                  return new
                                                     int[]{i, i};
startRt.isBefore(end)) ||
(endRt.isAfter(start) && endRt.isBefore(end))
                                                                          int[] factors = {i, num
|| (start.isAfter(startRt) &&
start.isBefore(endRt)) ||
                                                     / i};
(end.isAfter(startRt) && end.isBefore(endRt))
|| (start.isEqual(startRt) &&
                                                            listOfFactors.add(factors);
end.isEqual(endRt)))
                                                                   }
                            return false;
                                                                    int[] outArr = {num, 1};
                                                                    int diff = num - 1;
```

DataManager.java



```
package com.app.spectraflix;
import android.app.Application;
import java.util.LinkedList;
import java.util.List;
public class DataManager extends Application
       private List<Movie> movies;
       public List<BookableMovie>
bookableMovies:
       @Override
       public void onCreate()
               super.onCreate();
               this.movies = new
LinkedList<Movie>();
               this.movies.add(new
Movie("Moana", "", "", R.drawable.moana,
R.drawable.moana_title, "LKFuXETZUsI", "",
"https://commondatastorage.googleapis.com/gtv-
videos-bucket/sample/BigBuckBunny.mp4", "",
"Moana, daughter of chief Tui, embarks on a
journey to return the heart of goddess Te
Fitti from Maui, a demigod, after the plants
and the fish on her island start dying due to
a blight.", 1));
               this.movies.add(new
Movie("Zootopia", "", "", R.drawable.zootopia,
R.drawable.zootopia title, "jWM0ct-OLsM",
"<iframe width = \"100\%\" height=\"100\%\" src
\"https://drive.google.com/file/d/1LUvPO6INLgL
Zg2EegeKuTDXKe5uKp2ct/preview\" allow =
\"autoplay\" sandbox = \"allow-same-origin
allow-scripts\" allowfullscreen = \"true\"
scrolling = \"no\"></iframe>", "", "When
Judy Hopps, a rookie officer in the Zootopia
Police Department, sniffs out a sinister plot,
she enlists the help of a con artist to solve
the case in order to prove her abilities to
Chief Bogo.", 1));
               this.movies.add(new Movie("Toy
Story 3", "", "", R.drawable.toy_story_3,
R.drawable.toy_story_3_title, "2BlMNH1QTeE",
"https://commondatastorage.googleapis.com/gtv-
videos-bucket/sample/ForBiggerBlazes.mp4", "",
```

```
"Before Andy leaves for college, his toys are
mistakenly delivered to a day care centre.
Woody convinces the other toys that they were
not dumped and leads them on an expedition
back home.", 1));
               this.movies.add(new
Movie("Frozen II", "", "",
R.drawable.frozen 2,
R.drawable.frozen 2 title, "Zi4LMpSDccc",
"<iframe width = \sqrt{100}\" height=\sqrt{100}\" src
\"https://drive.google.com/file/d/1FilPpbgmjmb
tYBu 1k7QJ-1G1tQZGzLN/preview\" allow =
\"autoplay\" sandbox = \"allow-same-origin
allow-scripts\" allowfullscreen = \"true\"
scrolling = \"no\"></iframe>", "", "", "Three
years after her coronation when Elsa
celebrates Autumn, she hears a mysterious
voice. She follows that voice along with Anna
and their friends as they are forced to
uncover the truth.", 1));
               this.movies.add(new
Movie("Oppenheimer", "", "",
R.drawable.oppenheimer,
R.drawable.oppenheimer title, "uYPbbksJxIg",
"https://commondatastorage.googleapis.com/gtv-
videos-bucket/sample/ForBiggerFun.mp4", "",
"During World War II, Lt. Gen. Leslie Groves
Jr. appoints physicist J. Robert Oppenheimer
to work on the top-secret Manhattan Project.
Oppenheimer and a team of scientists spend
years developing and designing the atomic
bomb. Their work comes to fruition on July 16,
1945, as they witness the world's first
nuclear explosion, forever changing the course
of history.", 2));
               this.movies.add(new Movie("Free
Guy", "", "", R.drawable.free_guy,
R.drawable.free_guy_title, "X2m-08cOAbc", "",
"https://commondatastorage.googleapis.com/gtv-
videos-bucket/sample/ForBiggerJoyrides.mp4",
"", "Guy lives a seemingly peaceful life as a
bank teller. However, an encounter with a
pretty but mysterious woman makes him realise
that he is a non-playable character in a
massive online video game.", 2));
              this.movies.add(new
Movie("Kill", "", "", R.drawable.kill,
R.drawable.kill title, "da7lKeeS67c", "",
"https://commondatastorage.googleapis.com/gtv-
```

```
e, "uwysOfnX2Qg", "<iframe width = \"100%\"
videos-bucket/sample/ForBiggerMeltdowns.mp4",
"", "A train to New Delhi becomes a combat
                                                       height=\"100%\" src =
battleground as a pair of commandos faces off
                                                       \"https://drive.google.com/file/d/17VcFkKk7mvD
against an army of invading bandits.", 2));
                                                       xVvqRE5E41KcA5Ziby9Ob/preview\" allow =
              this.movies.add(new
                                                       \"autoplay\" sandbox = \"allow-same-origin
Movie("Srikanth", "", "", R.drawable.srikanth,
                                                       allow-scripts\" allowfullscreen = \"true\"
                                                       scrolling = \"no\"></iframe>", "", "", "Bruno, the son of a Nazi commander, meets Shmuel, a
R.drawable.srikanth_title, "OMeuJP5iBWY", "",
"", "", "In a world where the odds are against
him, Srikanth defies the norms and makes his
                                                       Jewish boy living in a concentration camp.
way from rural India to becoming the first
                                                       Later, both the children become friends while
visually impaired student at MIT.", 2));
                                                       being oblivious to the reality of the
this.movies.add(new Movie("The Conjuring", "", R.drawable.the_conjuring,
                                                       situation.", 4));
                                                                      this.movies.add(new
                                                       Movie("RRR", "", "", R.drawable.rrr,
R.drawable.the conjuring title, "k10ETZ41q5o",
                                                       R.drawable.rrr title, "GY4BqdUSpbE", "",
"https://commondatastorage.googleapis.com/gtv-
                                                       "http://commondatastorage.googleapis.com/gtv-
videos-bucket/sample/ElephantsDream.mp4", "",
                                                       videos-bucket/sample/ForBiggerEscapes.mp4",
"Rod and Carolyn find their pet dog dead under
                                                       "", "A fearless revolutionary and an officer
mysterious circumstances and experience a
                                                       in the British force, who once shared a deep
spirit that harms their daughter Andrea. They
                                                       bond, decide to join forces and chart out an
finally call investigators who can help them
                                                       inspirational path of freedom against the
get out of the mess.", 3));
                                                       despotic rulers.", 4));
              this.movies.add(new Movie("The
                                                                      this.movies.add(new
Conjuring 2", "", "",
                                                       Movie("Ralph Breaks The Internet", "", "",
R.drawable.the_conjuring_2,
                                                       R.drawable.ralph breaks the internet,
R.drawable.the_conjuring_2_title,
                                                       R.drawable.ralph_breaks_the_internet_title,
"VFsmuRPClr4", "<iframe width = \"100%\" height=\"100%\" src =
                                                       "_BcYBFC6zfY", "", "", "On a quest to save
                                                       the video game 'Sugar Rush' and to find a
\"https://drive.google.com/file/d/1B60gDkR45Z2
                                                       replacement, Ralph and his best friend
MmPkCoRvKEkg6b5017DWv/preview\" allow =
                                                       Vanellope travel to the World Wide Web through
\"autoplay\" sandbox = \"allow-same-origin
                                                       a Wi-Fi router they find at the arcade.", 4));
allow-scripts\" allowfullscreen = \"true\"
scrolling = \"no\"></iframe>", "", "", "Peggy,
                                                                      this.bookableMovies = new
a single mother of four children, seeks the
                                                       LinkedList<BookableMovie>();
help of occult investigators Ed and Lorraine
Warren when she and her children witness
                                                                      Cinema cinema1 = new
strange, paranormal events in their house.",
                                                       Cinema("Theater A", 24);
                                                                      cinemal.addRuntime("2024-10-14
               this.movies.add(new
                                                       11:15", "2024-10-14 14:00");
Movie("Annabelle Creation", "", "",
                                                                      cinemal.addRuntime("2024-10-15
R.drawable.annabelle creation,
                                                       11:15", "2024-10-15 14:00");
R.drawable.annabelle creation title,
"KisPhy7T Q", "",
                                                                      Cinema cinema2 = new
"https://commondatastorage.googleapis.com/gtv-
                                                       Cinema("Theater B", 36);
                                                                      cinema2.addRuntime("2024-10-17
videos-bucket/sample/Sintel.mp4", "", "A doll-
maker and his wife embed the spirit of their
                                                       07:00", "2024-10-17 10:00");
deceased daughter inside a doll. Years later,
                                                                      cinema2.addRuntime("2024-10-15
a nun and several girls from a shuttered
                                                       17:35", "2024-10-15 20:20");
orphanage become victims of the possessed
doll, Anabelle.", 3));
                                                                      BookableMovie movie1 = new
             this.movies.add(new Movie("The
                                                       BookableMovie("Free Guy",
Nun II", "", R.drawable.the nun 2,
                                                       R.drawable.free guy title, null);
R.drawable.the nun 2 title, "QF-oyCwaArU", "",
                                                                      movie1.addCinema(cinema1);
"", "", "In 19\overline{5}6 France, a priest is murdered,
                                                                      movie1.addCinema(cinema2);
and it seems an evil is spreading. Sister
Irene once again comes face to face with a
                                                                      BookableMovie movie2 = new
                                                       BookableMovie ("Moana", R.drawable.moana title,
demonic force.", 3));
              this.movies.add(new
                                                       null):
Movie("Interstellar", "", "",
                                                                      movie2.addCinema(cinema2);
R.drawable.interstellar,
R.drawable.interstellar title, "zSWdZVtXT7E",
                                                                      BookableMovie movie3 = new
                                                       BookableMovie("Interstellar",
"https://commondatastorage.googleapis.com/gtv-
                                                       R.drawable.interstellar title, null);
videos-bucket/sample/TearsOfSteel.mp4", "",
                                                                      movie3.addCinema(cinema1);
"When Earth becomes uninhabitable in the
future, a farmer and ex-NASA pilot, Joseph
                                                                      BookableMovie movie4 = new
Cooper, is tasked to pilot a spacecraft, along
                                                       BookableMovie("RRR", R.drawable.rrr title,
with a team of researchers, to find a new
                                                       null);
planet for humans.", 4));
                                                                      movie4.addCinema(cinema2);
               this.movies.add(new Movie("The
Boy In The Striped Pyjamas", "", "",
R.drawable.the_boy_in_the_striped_pyjamas,
```

R.drawable.the boy in the striped pyjamas titl

this.bookableMovies.add(movie1);

```
this.bookableMovies.add(movie2);
                                                              public List<BookableMovie>
       this.bookableMovies.add(movie3);
                                                      getBookableMovies()
                                                             {
       this.bookableMovies.add(movie4);
                                                                     return this.bookableMovies;
       public List<Movie> getMovies()
                                                             public void removeBookableMovie (String
                                                      movieName)
              return this.movies;
                                                                     for (int i = 0; i <
                                                      this.bookableMovies.size() ; i++)
       public void addMovie(Movie mov)
                                                              if (this.bookableMovies.get(i).getMovie
               this.movies.add(mov);
                                                      Name().toLowerCase().equals(movieName.toLowerC
                                                      ase()))
       public void removeMovie(String title)
                                                              this.bookableMovies.remove(i);
               for(int i = 0; i <
this.movies.size(); i++)
                                                              public void
                                                      addBookableMovie (BookableMovie mov)
       if(this.movies.get(i).getTitle().toLow
                                                             {
erCase().equals(title.toLowerCase()))
                                                                     this.bookableMovies.add(mov);
       this.movies.remove(i);
```

EnterDetails.java

super.onCreate(savedInstanceState);



```
package com.app.spectraflix;
                                                              setContentView(R.layout.enter details)
import android.os.Bundle;
import android.app.Activity;
import android.widget.Spinner;
                                                                     if(getActionBar() != null)
import android.widget.AdapterView;
                                                                             getActionBar().hide();
import android.widget.ArrayAdapter;
import android.widget.ImageView;
                                                                     DisplayMetrics displayMetrics =
import android.widget.ImageButton;
                                                      new DisplayMetrics();
import android.graphics.Typeface;
import android.widget.TextView;
                                                              getWindowManager().getDefaultDisplay()
import android.view.View;
                                                      .getMetrics(displayMetrics);
import android.view.Gravity;
                                                                     int width =
import android.util.DisplayMetrics;
                                                      displayMetrics.widthPixels;
import android.widget.EditText;
                                                                     int height =
import android.widget.LinearLayout;
                                                      displayMetrics.heightPixels;
import android.widget.RelativeLayout;
import android.content.Intent;
                                                                     Typeface customFont =
                                                      Typeface.createFromAsset(getAssets(),
import java.util.List;
import java.time.LocalDateTime;
                                                      "fonts/nasalization.ttf");
import java.time.format.DateTimeFormatter;
                                                                     TextView detailsTextView =
public class EnterDetails extends Activity
                                                      findViewById(R.id.details label);
       private String selectedCinema;
                                                              detailsTextView.setTypeface(customFont
       private String selectedRuntime;
       @Override
                                                                     RelativeLayout relativeLayout =
                                                      findViewById(R.id.RelativeLayout);
       protected void onCreate(Bundle
savedInstanceState)
                                                                     ImageButton imageButton = new
                                                      ImageButton(this);
```

```
LinearLayout.LayoutParams
buttonParams = new
                                                                              @Override
                                                                              public void
LinearLayout.LayoutParams(width / 8, height /
                                                       onItemSelected(AdapterView<?> parent, View
               buttonParams.gravity =
                                                       view, int position, long id)
Gravity.CENTER;
                                                                                     selectedCinema =
       imageButton.setLayoutParams(buttonPara
                                                      parent.getItemAtPosition(position).toString();
                                                                                     Cinema cinema =
ms);
                                                       null:
       imageButton.setImageResource(R.drawabl
                                                                                      for(Cinema
e.back);
                                                       cinema item : cinemas final)
       imageButton.setScaleType(ImageView.Sca
leType.FIT START);
                                                              if (cinema item.getName().equals(select
                                                       edCinema))
       imageButton.setBackground(null);
                                                              cinema = cinema item;
       imageButton.setOnClickListener(new
View.OnClickListener()
                                                                                     List<Runtime>
                                                       runtimes = cinema.getRuntimes();
                       @Override
                                                                                      String[]
                       public void
                                                       runtimes string = new String[runtimes.size()];
onClick(View v)
                                                                                     for (int i = 0;
                                                       i < runtimes.size(); i++)</pre>
                              Intent intent =
new Intent();
                                                              runtimes_string[i] =
                                                       runtimes.get(i).getStartDateTime().format(Date
        intent.setClass(getApplicationContext(
                                                       TimeFormatter.ofPattern("yyyy-MM-dd HH:mm"));
), activity2.class);
       startActivity(intent);
                                                       runtimeSpinner =
                       }
                                                       findViewById(R.id.runtimeSpinner);
       relativeLayout.addView(imageButton);
                                                              ArrayAdapter<String> runtimeAdapter =
                                                       new ArrayAdapter<> (EnterDetails.this,
               Intent intent = getIntent();
                                                       android.R.layout.simple spinner item,
               BookableMovie movie =
                                                       runtimes string);
(BookableMovie)
intent.getSerializableExtra("BookableMovie");
                                                              runtimeAdapter.setDropDownViewResource
                                                       (android.R.layout.simple spinner dropdown item
               Spinner cinemaSpinner =
                                                       );
findViewById(R.id.cinemaSpinner);
                                                              runtimeSpinner.setAdapter(runtimeAdapt
               List<Cinema> cinemas =
                                                       er);
movie.getCinemas();
               String[] cinemaNames = new
String[cinemas.size()];
                                                               runtimeSpinner.setOnItemSelectedListen
                                                       er(new AdapterView.OnItemSelectedListener()
               for(int i = 0; i <
cinemas.size() ; i++)
                                                              @Override
                       cinemaNames[i] =
cinemas.get(i).getName();
                                                       void onItemSelected(AdapterView<?> parent,
              ArrayAdapter<String>
                                                       View view, int position, long id)
cinemaAdapter = new ArrayAdapter<>(this,
android.R.layout.simple spinner item,
                                                              selectedRuntime =
cinemaNames);
                                                       parent.getItemAtPosition(position).toString();
       cinemaAdapter.setDropDownViewResource(
android.R.layout.simple spinner dropdown item)
                                                              @Override
       cinemaSpinner.setAdapter(cinemaAdapter
                                                                                             public
                                                       void onNothingSelected(AdapterView<?> parent)
);
                                                                                              { }
               final List<Cinema>
                                                                                     });
cinemas final = cinemas;
                                                                              @Override
       cinemaSpinner.setOnItemSelectedListene
```

r(new AdapterView.OnItemSelectedListener()

```
public void
onNothingSelected(AdapterView<?> parent) enteredName = editName.getText().toString();
                      { }
                                                     editPhoneNum =
               LinearLayout linearLayout =
                                                     findViewById(R.id.editPhoneNum);
findViewById(R.id.LinearLayout);
                                                     enteredPhoneNum =
                                                     editPhoneNum.getText().toString();
              ImageButton nextButton = new
ImageButton(this);
              LinearLayout.LayoutParams
                                                     editEmail = findViewById(R.id.editEmail);
nextButtonParams = new
LinearLayout.LayoutParams(width / 6, height /
                                                     enteredEmail = editEmail.getText().toString();
              nextButtonParams.gravity =
Gravity.CENTER;
                                                                                   final String[]
                                                     data = {enteredName, enteredPhoneNum,
       nextButton.setLayoutParams(nextButtonP
                                                     enteredEmail, selectedCinema,
                                                     selectedRuntime};
arams):
       nextButton.setImageResource(R.drawable
                                                                                   Intent intent =
                                                     new Intent();
.next screen);
       nextButton.setScaleType(ImageView.Scal
                                                             intent.putExtra("Data", data);
eType.FIT CENTER);
               nextButton.setBackground(null);
                                                            intent.putExtra("BookableMovie",
                                                     mov final);
              final BookableMovie mov final =
movie;
                                                             intent.setClass(getApplicationContext(
                                                     ), SelectSeat.class);
       nextButton.setOnClickListener(new
View.OnClickListener()
                                                             startActivity(intent);
                      @Override
                      public void
onClick(View v)
                                                             linearLayout.addView(nextButton);
                             EditText
editName = findViewById(R.id.editName);
```

Movie.java



```
package com.app.spectraflix;
                                                                    this.titleImagePath =
                                                      titleImagePath;
import java.io.Serializable;
                                                                     this.trailerId = trailerId;
                                                                     this.resImagePath =
public class Movie implements Serializable
                                                      resImagePath;
                                                                     this.resTitleImagePath =
       private String title, imagePath,
                                                      resTitleImagePath;
titleImagePath, trailerId, movieEmbedCode,
                                                                     this.description = description;
movieURL, localPath, description;
                                                                     this.movieEmbedCode =
       private int resImagePath,
                                                      movieEmbedCode;
                                                                     this.movieURL = movieURL;
resTitleImagePath, category;
                                                                     this.localPath = localPath;
       public Movie(String title, String
                                                                     this.category = category;
imagePath, String titleImagePath, int
resImagePath, int resTitleImagePath, String
                                                             public String getTitle()
trailerId, String movieEmbedCode, String
movieURL, String localPath, String
description, int category)
                                                                    return this.title;
               this.title = title;
               this.imagePath = imagePath;
                                                             public int getCategory()
```

```
public void setResImagePath(int
            return this.category;
                                                   resImagePath)
                                                      {
      public String getImagePath()
                                                                 this.resImagePath =
                                                   resImagePath;
             return this.imagePath;
                                                          public void setResTitleImagePath(int
      public String getTitleImagePath()
                                                 resTitleImagePath)
             return this.titleImagePath;
                                                                 this.resTitleImagePath =
                                                   resTitleImagePath;
      public int getResImagePath()
                                                         public void setDescription(String
             return this.resImagePath;
                                         description)
                                                                this.description = description;
       public int getResTitleImagePath()
              return this.resTitleImagePath;
                                                         public void setTitleImagePath(String
                                                   titleImagePath)
      public String getDescription()
                                                                this.titleImagePath =
                                                   titleImagePath;
             return this.description;
                                                         public void setTrailerId(String
      public String getTrailerId()
                                                   trailerId)
             return this.trailerId;
                                                                 this.trailerId = trailerId;
      public String getMovieEmbedCode()
                                                          public void setMovieEmbedCode(String
                                                   movieEmbedCode)
             return this.movieEmbedCode;
                                                                this.movieEmbedCode =
                                                   movieEmbedCode;
      public String getLocalPath()
             return this.localPath;
                                                          public void setCategory(int category)
                                                                this.category = category;
      public String getMovieURL()
             return this.movieURL;
                                                          public void setMovieURL(String
                                                   movieURL)
      public void setTitle(String title)
                                                                this.movieURL = movieURL;
             this.title = title;
                                                         public void setLocalPath(String
                                                   localPath)
      public void setImagePath(String
                                                         {
imagePath)
                                                                this localPath = localPath:
            this.imagePath = imagePath;
```

MovieLocalView.java



```
import android.app.Activity;
import android.os.Bundle;
import android.widget.VideoView;
import android.widget.MediaController;
import android.content.Intent;
public class MovieLocalView extends Activity
      @Override
      protected void onCreate(Bundle savedInstanceState)
             super.onCreate(savedInstanceState);
             setContentView(R.layout.movie url view);
             if (getActionBar() != null)
                    getActionBar().hide();
             Intent intent = getIntent();
             String moviePath = intent.getStringExtra("MoviePath");
             VideoView videoView = findViewById(R.id.videoView);
             MediaController mediaController = new MediaController(this);
             videoView.setMediaController(mediaController);
             mediaController.setAnchorView(videoView);
             videoView.setVideoPath(moviePath);
             videoView.start();
      }
```

MovieTrailerView.java



```
package com.app.spectraflix;
                                                                      if (getActionBar() != null)
                                                                             getActionBar().hide();
import android.os.Bundle;
import android.webkit.WebSettings;
                                                                      DisplayMetrics dM = new
                                                       DisplayMetrics();
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.app.Activity;
                                                              getWindowManager().getDefaultDisplay()
import android.widget.RelativeLayout;
                                                       .getMetrics(dM);
import android.widget.LinearLayout;
                                                                      int width = dM.widthPixels;
import android.content.Intent;
                                                                      int height = dM.heightPixels;
import android.util.DisplayMetrics;
                                                                      RelativeLayout relativeLayout =
import android.widget.ImageButton;
                                                       findViewById(R.id.RelativeLayout);
import android.view.Gravity;
import android.view.View;
import android.widget.ImageView;
                                                                      ImageButton imageButton = new
                                                       ImageButton(this);
public class MovieTrailerView extends Activity
                                                                      LinearLayout.LayoutParams
                                                      buttonParams = new
       @Override
                                                      LinearLayout.LayoutParams(width / 8, height /
       protected void onCreate(Bundle
savedInstanceState)
                                                                      buttonParams.gravity =
                                                       Gravity.CENTER;
       super.onCreate(savedInstanceState);
                                                              imageButton.setLayoutParams(buttonPara
                                                      ms);
       setContentView(R.layout.movie webview)
                                                              imageButton.setImageResource(R.drawabl
                                                       e.back);
```

```
imageButton.setScaleType(ImageView.Sca
                                                                       Intent intent = getIntent();
leType.FIT START);
                                                                       String movieTrailerId =
                                                        intent.getStringExtra("MovieTrailerId");
                                                        String trailerEmbedCode = "<iframe id=\"player\" type=\"text/html\"
       imageButton.setBackground(null);
                                                        width=\"100%\" height=\"100%\"
       imageButton.setOnClickListener(new
                                                        src=\"https://www.youtube.com/embed/" +
View.OnClickListener()
                                                       movieTrailerId + "?enablejsapi=1\"
                                                        frameborder=\"0\"></iframe>";
                       @Override
                       public void
                                                                       WebView webView =
onClick(View v)
                                                        findViewById(R.id.webView);
                                                                       WebSettings webSettings =
                               Intent intent =
new Intent();
                                                        webView.getSettings();
       intent.setClass(getApplicationContext(
                                                                webSettings.setJavaScriptEnabled(true)
), MainActivity.class);
                                                                       webView.setWebViewClient(new
       startActivity(intent);
                                                        WebViewClient());
                                                                webView.loadData(trailerEmbedCode,
                                                        "text/html", "UTF-8");
                                                               }
       relativeLayout.addView(imageButton);
```

MovieURLView.java



```
if (getActionBar() != null)
                                                                             getActionBar().hide();
package com.app.spectraflix;
                                                                     Intent intent = getIntent();
import android.app.Activity;
                                                                     String movieURL =
import android.os.Bundle;
                                                      intent.getStringExtra("MovieURL");
import android.net.Uri;
import android.widget.VideoView;
                                                                     videoView =
import android.content.Intent;
                                                      findViewById(R.id.videoView);
import android.widget.MediaController;
                                                                     Uri uri = Uri.parse(movieURL);
public class MovieURLView extends Activity
                                                                     videoView.setVideoURI(uri);
                                                                     MediaController mediaController
                                                      = new MediaController(this);
       private VideoView videoView;
                                                              mediaController.setAnchorView(videoVie
       @Override
       protected void onCreate(Bundle
savedInstanceState)
                                                              videoView.setMediaController(mediaCont
                                                      roller);
                                                                     videoView.start();
       super.onCreate(savedInstanceState);
       setContentView(R.layout.movie url view
);
```

MovieWebView.java



```
package com.app.spectraflix;
                                                              imageButton.setLayoutParams(buttonPara
import android.os.Bundle;
                                                      ms);
import android.webkit.WebSettings;
import android.webkit.WebView;
                                                              imageButton.setImageResource(R.drawabl
import android.webkit.WebViewClient;
                                                      e.back);
import android.app.Activity;
import android.widget.RelativeLayout;
                                                              imageButton.setScaleType(ImageView.Sca
import android.widget.LinearLayout;
                                                      leType.FIT START);
import android.content.Intent;
import android.util.DisplayMetrics;
                                                              imageButton.setBackground(null);
import android.widget.ImageButton;
import android.view.Gravity;
                                                              imageButton.setOnClickListener(new
import android.view.View;
                                                      View.OnClickListener()
import android.widget.ImageView;
                                                                             @Override
public class MovieWebView extends Activity
                                                                             public void
                                                      onClick(View v)
       @Override
       protected void onCreate(Bundle
                                                                                    Intent intent =
savedInstanceState)
                                                      new Intent();
                                                              intent.setClass(getApplicationContext(
       super.onCreate(savedInstanceState);
                                                      ), MainActivity.class);
       setContentView(R.layout.movie webview)
                                                              startActivity(intent);
               if (getActionBar() != null)
                      getActionBar().hide();
                                                              relativeLayout.addView(imageButton);
               DisplayMetrics dM = new
DisplayMetrics();
                                                                     Intent intent = getIntent();
                                                                     String movieEmbedCode =
       getWindowManager().getDefaultDisplay()
                                                      intent.getStringExtra("MovieEmbedCode");
.getMetrics(dM);
               int width = dM.widthPixels;
                                                                     WebView webView =
               int height = dM.heightPixels;
                                                      findViewById(R.id.webView);
               RelativeLayout relativeLayout =
                                                                     WebSettings webSettings =
findViewById(R.id.RelativeLayout);
                                                      webView.getSettings();
               ImageButton imageButton = new
                                                              webSettings.setJavaScriptEnabled(true)
ImageButton(this);
              LinearLayout.LayoutParams
buttonParams = new
                                                                     webView.setWebViewClient(new
LinearLayout.LayoutParams(width / 8, height /
                                                      WebViewClient());
              buttonParams.gravity =
                                                              webView.loadData(movieEmbedCode,
Gravity.CENTER;
                                                      "text/html", "UTF-8");
                                                             }
```

PreviewActivity.java



```
int height =
package com.app.spectraflix;
                                                      displayMetrics.heightPixels;
import android.os.Bundle;
import android.util.DisplayMetrics;
                                                                      ImageButton imageButton = new
import android.widget.LinearLayout;
                                                      ImageButton(this);
import android.widget.RelativeLayout;
                                                                     LinearLayout.LayoutParams
import android.widget.ScrollView;
                                                      buttonParams = new
import android.view.View;
                                                      LinearLayout.LayoutParams(width / 8, height /
import android.widget.TextView;
import android.widget.ImageView;
                                                                     buttonParams.gravity =
import android.widget.ImageButton;
                                                      Gravity.CENTER;
import android.net.Uri;
import java.io.File;
                                                              imageButton.setLayoutParams(buttonPara
import android.graphics.Bitmap;
                                                      ms):
import android.graphics.BitmapFactory;
import android.view.Gravity;
                                                              imageButton.setImageResource(R.drawabl
import android.content.Intent;
                                                      e.back);
import android.app.Activity;
                                                              imageButton.setScaleType(ImageView.Sca
import android.graphics.Typeface;
import android.graphics.drawable.Drawable;
                                                      leType.FIT START);
import android.widget.Button;
import android.widget.Toast;
                                                              imageButton.setBackground(null);
                                                              imageButton.setOnClickListener(new
public class PreviewActivity extends Activity
                                                      View.OnClickListener()
    @Override
   protected void onCreate (Bundle
                                                                             @Override
savedInstanceState)
                                                                             public void
                                                      onClick(View v)
        super.onCreate(savedInstanceState);
        setContentView(R.layout.preview);
                                                                                     Intent intent =
                                                      new Intent();
               if (getActionBar() != null)
            getActionBar().hide();
                                                              intent.setClass(getApplicationContext(
                                                      ), MainActivity.class);
        Intent intent = getIntent();
        Movie mov = (Movie)
                                                              startActivity(intent);
intent.getSerializableExtra("Movie");
               Typeface customFont =
Typeface.createFromAsset(getAssets(),
"fonts/nasalization.ttf");
                                                              relativeLayout.addView(imageButton);
               TextView movieTextView =
                                                              RelativeLayout.LayoutParams
findViewById(R.id.watch movie);
                                                      layoutParams = new
                                                      RelativeLayout.LayoutParams(
                                                                             width / 2,
       movieTextView.setTypeface(customFont);
                                                                             height / 2
               RelativeLayout relativeLayout =
findViewById(R.id.RelativeLayout);
               LinearLayout linearLayout =
                                                      layoutParams.addRule(RelativeLayout.ALIGN PARE
findViewById(R.id.LinearLayout);
                                                      NT BOTTOM);
        DisplayMetrics displayMetrics = new
                                                      layoutParams.addRule(RelativeLayout.ALIGN PARE
DisplayMetrics();
                                                      NT START);
getWindowManager().getDefaultDisplay().getMetr
                                                      linearLayout.setLayoutParams(layoutParams);
ics(displayMetrics);
       int width =
                                                                     ImageView movieTitleView = new
displayMetrics.widthPixels;
                                                      ImageView(this);
```

```
LinearLayout.LayoutParams
movieTitleParams = new
                                                               textView.setTypeface(customFont);
LinearLayout.LayoutParams(width / 3, height /
                                                               textView.setTextSize(18);
               movieTitleParams.gravity =
                                                              textView.setBackgroundResource(R.drawa
Gravity.CENTER;
                                                       ble.rounded textview);
       movieTitleView.setLayoutParams(movieTi
                                                               scrollView.addView(textView);
tleParams);
               if(mov.getResTitleImagePath()
                                                               linearLayout.addView(movieTitleView);
                                                               linearLayout.addView(scrollView);
== -1)
               {
                       try
                                                                      LinearLayout buttonsLayout =
                                                       findViewById(R.id.WatchMoviesLayout);
                              File file = new
                                                                      RelativeLayout.LayoutParams
File(mov.getTitleImagePath());
                                                       buttonsParams = new
                                                       RelativeLayout.LayoutParams(
                               Uri imageUri =
Uri.fromFile(file);
                                                                              width / 4.
                                                                              height / 2
                              Bitmap bitmap =
BitmapFactory.decodeStream(getContentResolver(
).openInputStream(imageUri));
                                                              buttonsParams.addRule(RelativeLayout.A
       movieTitleView.setImageBitmap(bitmap);
                                                       LIGN PARENT BOTTOM);
                                                       buttonsParams.addRule(RelativeLayout.ALIGN PAR
                       catch(Exception e)
                                                       ENT END);
                       { }
               }
                                                              buttonsLayout.setLayoutParams(buttonsP
                                                       arams);
               else
                                                                      ImageButton trailerButton = new
       movieTitleView.setImageResource(mov.ge
                                                       ImageButton(this);
tResTitleImagePath());
                                                                      RelativeLayout.LayoutParams
                                                       trailerParams = new
                                                       RelativeLayout.LayoutParams(
       movieTitleView.setScaleType(ImageView.
                                                                              width / 6,
ScaleType.FIT CENTER);
                                                                              height / 6
                                                                      );
               ImageView bgImage =
findViewById(R.id.background image);
                                                              trailerParams.addRule(RelativeLayout.A
                                                       LIGN PARENT TOP);
               if(mov.getResImagePath() == -1)
                                                       trailerParams.addRule(RelativeLayout.ALIGN PAR
                                                       ENT END);
                       try
                               File file = new
                                                               trailerButton.setLayoutParams(trailerP
File(mov.getImagePath());
                                                       arams);
                              Uri imageUri =
Uri.fromFile(file);
                                                               trailerButton.setImageResource(R.drawa
                              Bitmap bitmap =
                                                       ble.trailer);
BitmapFactory.decodeStream(getContentResolver(
).openInputStream(imageUri));
                                                              trailerButton.setScaleType(ImageView.S
                                                       caleType.FIT CENTER);
       bgImage.setImageBitmap(bitmap);
                                                              trailerButton.setBackground(null);
                       catch (Exception e)
                                                                      final String trailerId =
                                                       mov.getTrailerId();
                                                               trailerButton.setOnClickListener(new
                                                       View.OnClickListener()
               else
       bgImage.setImageResource(mov.getResIma
                                                                              @Override
gePath());
                                                                              public void
                                                       onClick(View v)
        ScrollView scrollView = new
ScrollView(this);
                                                              if(trailerId.equals("") || trailerId
        TextView textView = new
                                                       == null)
TextView(this);
                                                              Toast.makeText(getApplicationContext()
textView.setText(mov.getDescription());
```

```
, "TRAILER NOT AVAILABLE!",
                                                                              ImageButton button =
Toast.LENGTH SHORT).show();
                                                      findViewById(buttonIds[i]);
                                                                             final String movieStr =
                              else
                                                       strData[i];
                                                                             final int k = i;
                                      Intent
intent = new Intent();
                                                              button.setOnClickListener(new
                                                      View.OnClickListener()
       intent.putExtra("MovieTrailerId",
trailerId);
                                                                                     @Override
                                                                                     public void
       intent.setClass(getApplicationContext(
                                                      onClick(View v)
), MovieTrailerView.class);
       startActivity(intent);
                                                              if(movieStr.equals("") || movieStr ==
                                                      null)
               });
                                                              Toast.makeText(getApplicationContext()
                                                       , "MOVIE NOT AVAILABLE!",
                                                       Toast.LENGTH SHORT).show();
       relativeLayout.addView(trailerButton);
                                                                                             else
               int[] buttonIds =
{R.id.icon button1, R.id.icon button2,
R.id.icon button3};
                                                              Intent intent = new Intent();
               {\tt final String[] strIds =}
{"MovieEmbedCode", "MovieURL", "MoviePath"};
                                                              intent.putExtra(strIds[k],
               final String[] strData =
                                                       strData[k]);
{mov.getMovieEmbedCode(), mov.getMovieURL(),
                                                              intent.setClass(getApplicationContext(
mov.getLocalPath();
               final Class<?>[] classes = new
                                                      ), classes[k]);
Class<?>[] {
                      MovieWebView.class,
                                                              startActivity(intent);
                      MovieURLView.class,
                      MovieLocalView.class
                                                                                    }
               };
                                                                             });
                                                                      }
               for(int i = 0; i < 3; i++)
```

Runtime.java



```
package com.app.spectraflix;
import java.util.List;
import java.util.LinkedList;
import java.time.LocalDateTime;
import java.io.Serializable;
import java.time.format.DateTimeFormatter;
public class Runtime implements Serializable
       private LocalDateTime startDateTime, endDateTime;
       public int[][] seats;
       public Runtime(String startDateTime, String endDateTime, int[] rowCol)
               DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-MM-dd HH:mm");
               this.startDateTime = LocalDateTime.parse(startDateTime, formatter);
               this.endDateTime = LocalDateTime.parse(endDateTime, formatter);
               this.seats = new int[rowCol[0]][rowCol[1]];
               for(int i = 0; i < rowCol[0]; i++)
                       for(int j = 0; j < rowCol[1]; j++)
                              this.seats[i][j] = 0;
       public int[][] getSeats()
               return this.seats;
       public LocalDateTime getStartDateTime()
               return this.startDateTime;
       public LocalDateTime getEndDateTime()
               return this.endDateTime;
       public boolean bookSeat(int i, int j)
               if(this.seats[i][j] == 1)
                      return false;
               this.seats[i][j] = 1;
               return true;
       public boolean cancelSeat(int i, int j)
               if(this.seats[i][j] == 0)
                      return false;
               this.seats[i][j] = 0;
               return true;
```

SelectSeat.java

displayMetrics.heightPixels;



```
package com.app.spectraflix;
                                                                     RelativeLayout relativeLayout =
import android.app.Activity;
                                                      findViewById(R.id.RelativeLayout);
import android.os.Bundle;
import android.content.Intent;
                                                                      ImageButton backButton = new
import android.widget.GridLayout;
                                                      ImageButton(this);
import android.view.Gravity;
                                                                     LinearLayout.LayoutParams
import android.widget.ImageButton;
                                                      backButtonParams = new
import java.time.LocalDateTime;
                                                      LinearLayout.LayoutParams(width / 8, height /
import java.time.format.DateTimeFormatter;
                                                                     backButtonParams.gravity =
import android.widget.LinearLayout;
import android.widget.RelativeLayout;
                                                      Gravity.CENTER;
import android.widget.Toast;
import java.util.List;
                                                              backButton.setLayoutParams(backButtonP
import android.view.View;
                                                      arams);
import android.util.DisplayMetrics;
import android.graphics.Typeface;
                                                              backButton.setImageResource(R.drawable
import android.widget.TextView;
                                                      .back):
import android.content.Context;
                                                              backButton.setScaleType(ImageView.Scal
import android.widget.ImageView;
                                                      eType.FIT START);
public class SelectSeat extends Activity
                                                                     backButton.setBackground(null);
       private ImageButton[][] buttonArray;
                                                             backButton.setOnClickListener(new
       private BookableMovie movie;
                                                      View.OnClickListener()
       private int movie index, cinema index,
runtime index, selected row = -1, selected col
                                                                             @Override
                                                                             public void
       private List<BookableMovie>
                                                      onClick(View v)
bookableMovies;
                                                                                     Intent intent =
       @Override
                                                      new Intent();
       protected void onCreate(Bundle
savedInstanceState)
                                                              intent.setClass(getApplicationContext(
                                                      ), activity2.class);
       super.onCreate(savedInstanceState);
                                                              startActivity(intent);
       setContentView(R.layout.select seat);
                                                                      1):
               if(getActionBar() != null)
                      getActionBar().hide();
                                                              relativeLayout.addView(backButton);
               Typeface customFont =
                                                                      Intent intent = getIntent();
Typeface.createFromAsset(getAssets(),
                                                                     String[] data =
"fonts/nasalization.ttf");
                                                      intent.getStringArrayExtra("Data");
                                                                     movie = (BookableMovie)
               TextView seatTextView =
                                                      intent.getSerializableExtra("BookableMovie");
findViewById(R.id.seat label);
                                                                     final DataManager dataManager =
       seatTextView.setTypeface(customFont);
                                                      (DataManager) getApplication();
                                                                     bookableMovies =
               DisplayMetrics displayMetrics =
                                                      dataManager.getBookableMovies();
new DisplayMetrics();
                                                                     for(int i = 0; i <
                                                      bookableMovies.size() ; i++)
       getWindowManager().getDefaultDisplay()
.getMetrics(displayMetrics);
                                                              if(bookableMovies.get(i).getMovieName(
               int width =
                                                      ).equals(movie.getMovieName()))
displayMetrics.widthPixels;
                                                                                     movie index = i;
               int height =
```

```
List<Cinema> cinemas =
                                                              imageButton.setImageResource(R.drawabl
movie.getCinemas();
               for (int i = 0; i <
                                                      e.chair booked);
cinemas.size(); i++)
       if(cinemas.get(i).getName().equals(dat
                                                              LinearLayout.LayoutParams buttonParams
a[3]))
                                                      = new LinearLayout.LayoutParams(
                              cinema index =
                                                                                             width /
i;
                                                      cols / 2.
                                                                                            height /
               List<Runtime> runtimes =
                                                      rows / 2
movie.cinemas.get(cinema index).getRuntimes();
                                                                                     );
               for(int i = 0 ; i <
runtimes.size(); i++)
                                                              imageButton.setLayoutParams(buttonPara
       if(runtimes.get(i).getStartDateTime().
                                                      ms);
format(DateTimeFormatter.ofPattern("yyyy-MM-dd
HH:mm")).equals(data[4]))
                                                              imageButton.setScaleType(ImageView.Sca
                                                      leType.FIT CENTER);
                              runtime index =
i :
                                                              imageButton.setBackground(null);
               LinearLayout linearLayout =
findViewById(R.id.linearlayout);
                                                              imageButton.setPadding(5, 5, 5, 5);
               int rows =
movie.cinemas.get(cinema index).runtimes.get(r
                                                              buttonArray[row][col] = imageButton;
untime index).seats.length;
              int cols =
                                                                                     final int
movie.cinemas.get(cinema index).runtimes.get(r
                                                      currentRow = row;
untime index).seats[0].length;
                                                                                     final int
                                                      currentCol = col;
               buttonArray = new
ImageButton[rows][cols];
                                                              imageButton.setOnClickListener(new
                                                      View.OnClickListener()
               GridLayout gridLayout = new
GridLayout(this);
               gridLayout.setRowCount(rows);
                                                              @Override
                                                                                            public
                                                      void onClick(View v)
       gridLayout.setColumnCount(cols);
               LinearLayout.LayoutParams
gridParams = new LinearLayout.LayoutParams(
                                                              if(bookableMovies.get(movie index).cin
                                                      emas.get(cinema index).runtimes.get(runtime in
       LinearLayout.LayoutParams.WRAP CONTENT
                                                      dex).seats[currentRow][currentCol] == 1)
                                                              Toast.makeText(SelectSeat.this, "Seat
       LinearLayout.LayoutParams.WRAP CONTENT
                                                      already booked!", Toast.LENGTH SHORT).show();
               );
                                                              else
                                                                                                    {
       gridLayout.setLayoutParams(gridParams)
                                                              if (selected row !=-1)
               gridLayout.setPadding(20, 20,
20, 20);
               for(int row = 0 ; row < rows ;</pre>
row++)
                                                              buttonArray[selected row][selected col
                                                      ].setImageResource(R.drawable.chair available)
                      for(int col = 0; col <
cols ; col++)
                                                              bookableMovies.get(movie index).cinema
                              ImageButton
                                                      s.get(cinema index).runtimes.get(runtime index
imageButton = new ImageButton(this);
                                                      ).seats[selected row][selected col] = 0;
       if(bookableMovies.get(movie index).cin
emas.get(cinema index).runtimes.get(runtime in
dex).seats[row][col] == 0)
       imageButton.setImageResource(R.drawabl
                                                              buttonArray[currentRow][currentCol].se
e.chair available);
                                                      tImageResource(R.drawable.chair booked);
                                                              selected row = currentRow;
```

```
bookButton.setBackground(null);
       selected col = currentCol;
                                                                      final String[] data new = data;
       bookableMovies.get(movie index).cinema
s.get(cinema index).runtimes.get(runtime index
                                                              bookButton.setOnClickListener(new
).seats[currentRow][currentCol] = 1;
                                                      View.OnClickListener()
                                                                             @Override
                                                                             public void
                              });
                                                      onClick(View v)
       gridLayout.addView(imageButton);
                                                      new data = {data new[0], data new[1],
                      }
                                                      data_new[2], data_new[3], data_new[4],
                                                      Character.toString((char)(65 + selected row))
                                                      + selected col};
       linearLayout.addView(gridLayout);
                                                                                     Intent intent =
               ImageButton bookButton = new
                                                      new Intent();
ImageButton(this);
               LinearLayout.LayoutParams
                                                              intent.putExtra("Data", new data);
bookButtonParams = new
LinearLayout.LayoutParams(width / 4, height /
                                                              intent.setClass(getApplicationContext(
                                                      ), Ticket.class);
              bookButtonParams.gravity =
                                                              startActivity(intent);
Gravity.CENTER;
                                                                      }):
       bookButton.setLayoutParams(bookButtonP
arams);
       bookButton.setImageResource(R.drawable
                                                              linearLayout.addView(bookButton);
.book ticket);
       bookButton.setScaleType(ImageView.Scal
eType.FIT CENTER);
```

Ticket.java



```
package com.app.spectraflix;
                                                                             getActionBar().hide();
import android.app.Activity;
                                                                      Intent intent = getIntent();
import android.os.Bundle;
                                                                      String[] data =
import android.content.Intent;
                                                      intent.getStringArrayExtra("Data");
import android.widget.TextView;
                                                                      String text = "Name : " +
                                                      data[0] + "\nPhone No. : " + data[1] +
public class Ticket extends Activity
                                                      "\nEmail Address : " + data[2] + "\nCinema : "
                                                      + data[3] + "\nRuntime : " + data[4] +
       @Override
                                                      "\nSeat : " + data[5] + "\n\nPLEASE TAKE A
       protected void onCreate(Bundle
                                                      SCREENSHOT OF THIS PAGE";
savedInstanceState)
                                                                     TextView textView =
                                                      findViewById(R.id.ticket details);
       super.onCreate(savedInstanceState);
                                                                     textView.setText(text);
       setContentView(R.layout.ticket);
               if (getActionBar() != null)
```

activity2.java



```
package com.app.spectraflix;
                                                               button3.setOnClickListener(new
                                                       View.OnClickListener()
import android.app.Activity;
import android.os.Bundle;
                                                                              @Override
import android.content.Intent;
                                                                              public void
import android.view.View;
                                                       onClick(View v)
import android.widget.ImageButton;
import android.widget.ImageView;
                                                                                     Intent intent =
                                                       new Intent();
import
android.graphics.drawable.ColorDrawable;
import android.widget.LinearLayout;
                                                              intent.setClass(getApplicationContext(
import android.view.Gravity;
                                                       ), activity3.class);
import android.util.DisplayMetrics;
import android.graphics.Color;
                                                              startActivity(intent);
import android.app.ActionBar;
import java.util.List;
                                                              overridePendingTransition(0, 0);
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
                                                                      });
import android.net.Uri;
import java.io.File;
                                                                      DataManager dataManager =
                                                       (DataManager) getApplication();
public class activity2 extends Activity
                                                                      List<BookableMovie>
                                                       bookableMovies =
                                                       dataManager.getBookableMovies();
    protected void onCreate (Bundle
savedInstanceState)
                                                                      DisplayMetrics displayMetrics =
                                                       new DisplayMetrics();
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity2);
                                                              getWindowManager().getDefaultDisplay()
                                                       .getMetrics(displayMetrics);
        ActionBar actionBar = getActionBar();
                                                                      int height =
                                                       displayMetrics.heightPixels;
        if(actionBar != null)
                                                                      for(BookableMovie movie :
actionBar.setBackgroundDrawable(new
                                                       bookableMovies)
ColorDrawable(Color.parseColor("#ACD5C2")));
                                                                              addBookableMovie(movie,
                                                       height);
               ImageButton button1 =
findViewById(R.id.icon button1);
        button1.setOnClickListener(new
                                                           public void addBookableMovie (BookableMovie
                                                       movie, int height)
View.OnClickListener()
                               @Override
                                                                      LinearLayout parentLayout =
                              public void
                                                       findViewById(R.id.ImageLinearLayout);
onClick(View v)
                                                                      ImageButton imageButton = new
                                      Intent
                                                       ImageButton(this);
intent = new Intent();
                                                                      LinearLayout.LayoutParams
                                                       buttonParams = new LinearLayout.LayoutParams(
       intent.setClass(getApplicationContext(
), MainActivity.class);
                                                              LinearLayout.LayoutParams.MATCH PARENT
                                                                             height / 3
       startActivity(intent);
                                                                      );
       overridePendingTransition(0, 0);
                                                                      buttonParams.gravity =
                                                       Gravity.CENTER;
               });
                                                              imageButton.setLayoutParams(buttonPara
               ImageButton button3 =
                                                      ms);
findViewById(R.id.icon button3);
```

```
if (movie.getResMovieTitlePath()
== -1)
                                                                      final BookableMovie mov final =
                                                      movie;
                       try
                                                              imageButton.setOnClickListener(new
                              File file = new
                                                      View.OnClickListener()
File(movie.getMovieTitlePath());
                              Uri imageUri =
                                                                              @Override
Uri.fromFile(file);
                                                                             public void
                                                       onClick(View v)
                              Bitmap bitmap =
BitmapFactory.decodeStream(getContentResolver(
).openInputStream(imageUri));
                                                                                     Intent intent =
                                                      new Intent();
       imageButton.setImageBitmap(bitmap);
                                                              intent.putExtra("BookableMovie",
                                                      mov final);
                       catch(Exception e)
                                                              intent.setClass(getApplicationContext(
               }
                                                       ), EnterDetails.class);
                                                              startActivity(intent);
               else
       imageButton.setImageResource(movie.get
ResMovieTitlePath());
                                                              parentLayout.addView(imageButton);
       imageButton.setScaleType(ImageView.Sca
leType.FIT CENTER);
       imageButton.setBackground(null);
```

activity3.java



```
package com.app.spectraflix;
                                                      actionBar.setBackgroundDrawable (new
import android.app.Activity;
                                                      ColorDrawable(Color.parseColor("#ACD5C2")));
import android.os.Bundle;
import android.content.Intent;
                                                              Typeface customFont =
                                                      Typeface.createFromAsset(getAssets(),
import android.view.View;
                                                      "fonts/nasalization.ttf");
import android.widget.ImageButton;
import
                                                                     TextView movieView =
android.graphics.drawable.ColorDrawable;
                                                      findViewById(R.id.add_remove_movie);
import android.widget.LinearLayout;
import android.widget.ImageView;
                                                              movieView.setTypeface(customFont);
import android.util.DisplayMetrics;
                                                                     TextView bookableMovieView =
import android.graphics.Color;
                                                      findViewById(R.id.add remove bookable movie);
import android.view.Gravity;
import android.app.ActionBar;
                                                              bookableMovieView.setTypeface(customFo
import android.graphics.Typeface;
                                                      nt);
import android.widget.TextView;
                                                                     ImageButton button1 =
public class activity3 extends Activity
                                                      findViewById(R.id.icon button1);
                                                              button1.setOnClickListener(new
                                                      View.OnClickListener()
   protected void onCreate (Bundle
savedInstanceState)
                                                                                     @Override
                                                                                     public void
   {
        super.onCreate(savedInstanceState);
                                                      onClick(View v)
        setContentView(R.layout.activity3);
                                                                                            Intent.
        ActionBar actionBar = getActionBar();
                                                      intent = new Intent();
        if(actionBar != null)
                                                              intent.setClass(getApplicationContext(
                                                      ), MainActivity.class);
```

```
startActivity(intent);
                                                              startActivity(intent);
       overridePendingTransition(0, 0);
                             }
                                                                     ImageButton removeMovieButton =
                                                      new ImageButton(this);
               ImageButton button2 =
                                                                     LinearLayout.LayoutParams
findViewById(R.id.icon button2);
                                                      removeMovieParams = new
       button2.setOnClickListener(new
                                                      LinearLayout.LayoutParams(width / 3, height /
View.OnClickListener()
                                                                     removeMovieParams.gravity =
                       @Override
                                                      Gravity.CENTER;
                      public void
onClick(View v)
                                                              removeMovieButton.setLayoutParams(remo
                                                      veMovieParams);
                              Intent intent =
new Intent();
                                                              removeMovieButton.setImageResource(R.d
                                                      rawable.remove);
       intent.setClass(getApplicationContext(
), activity2.class);
                                                              removeMovieButton.setScaleType(ImageVi
                                                      ew.ScaleType.FIT CENTER);
       startActivity(intent);
                                                              removeMovieButton.setBackground(null);
       overridePendingTransition(0, 0);
                                                             removeMovieButton.setOnClickListener(n
                                                      ew View.OnClickListener()
                                                                     {
               LinearLayout linearLayout =
                                                                             @Override
findViewById(R.id.add remove movie layout);
                                                                             public void
                                                      onClick(View v)
               DisplayMetrics displayMetrics =
                                                                                    Intent intent =
new DisplayMetrics();
                                                      new Intent();
       getWindowManager().getDefaultDisplay()
.getMetrics(displayMetrics);
                                                              intent.setClass(getApplicationContext(
              int width =
                                                      ), removeMovie.class);
displayMetrics.widthPixels;
               int height =
                                                              startActivity(intent);
displayMetrics.heightPixels;
               ImageButton addMovieButton =
new ImageButton(this);
              LinearLayout.LayoutParams
                                                              linearLayout.addView(addMovieButton);
addMovieParams = new
LinearLayout.LayoutParams(width / 3, height /
                                                              linearLayout.addView(removeMovieButton
3);
              addMovieParams.gravity =
Gravity.CENTER;
                                                                     LinearLayout linearLayout2 =
                                                      findViewById(R.id.add remove bookable movie la
       addMovieButton.setLayoutParams(addMovi
                                                      vout);
eParams);
                                                                     ImageButton
                                                      addBookableMovieButton = new
       addMovieButton.setImageResource(R.draw
able.add);
                                                      ImageButton(this);
                                                                     LinearLayout.LayoutParams
       addMovieButton.setScaleType(ImageView.
                                                      addBookableMovieParams = new
ScaleType.FIT CENTER);
                                                      LinearLayout.LayoutParams(width / 3, height /
                                                      3);
       addMovieButton.setBackground(null);
                                                                     addBookableMovieParams.gravity
                                                      = Gravity.CENTER;
       addMovieButton.setOnClickListener(new
                                                              addBookableMovieButton.setLayoutParams
View.OnClickListener()
                                                      (addBookableMovieParams);
                      @Override
                      public void
                                                              addBookableMovieButton.setImageResourc
onClick(View v)
                                                      e(R.drawable.add);
                              Intent intent =
                                                              addBookableMovieButton.setScaleType(Im
new Intent();
                                                      ageView.ScaleType.FIT CENTER);
       intent.setClass(getApplicationContext(
                                                              addBookableMovieButton.setBackground(n
), addMovie.class);
                                                      ull);
```

```
addBookableMovieButton.setOnClickListe
                                                              removeBookableMovieButton.setScaleType
ner(new View.OnClickListener()
                                                      (ImageView.ScaleType.FIT CENTER);
                       @Override
                                                              removeBookableMovieButton.setBackgroun
                      public void
                                                      d(null);
onClick(View v)
                                                              removeBookableMovieButton.setOnClickLi
                              Intent intent =
                                                      stener(new View.OnClickListener()
new Intent();
       intent.setClass(getApplicationContext(
                                                                             public void
), addBookableMovie.class);
                                                      onClick(View v)
       startActivity(intent);
                                                                                     Intent intent =
                                                      new Intent();
               });
                                                              intent.setClass(getApplicationContext(
               ImageButton
                                                      ), removeBookableMovie.class);
removeBookableMovieButton = new
ImageButton(this);
                                                              startActivity(intent);
               LinearLayout.LayoutParams
removeBookableMovieParams = new
LinearLayout.LayoutParams(width / 3, height /
                                                              linearLayout2.addView(addBookableMovie
       removeBookableMovieParams.gravity =
                                                      Button);
Gravity.CENTER;
                                                              linearLayout2.addView(removeBookableMo
       removeBookableMovieButton.setLayoutPar
                                                      vieButton);
ams(removeBookableMovieParams);
                                                          }
       removeBookableMovieButton.setImageReso
urce (R.drawable.remove);
```

addBookableMovie.java



```
package com.app.spectraflix;
                                                              super.onCreate(savedInstanceState);
import android.os.Bundle;
import android.app.Activity;
                                                              setContentView(R.layout.add bookable m
import android.widget.ImageView;
                                                      ovie);
import android.widget.ImageButton;
import android.graphics.Typeface;
                                                                     if(getActionBar() != null)
import android.widget.TextView;
                                                                             getActionBar().hide();
import android.view.View;
import android.view.Gravity;
                                                                     DisplayMetrics displayMetrics =
import android.util.DisplayMetrics;
                                                      new DisplayMetrics();
import android.widget.EditText;
import android.widget.Toast;
                                                              getWindowManager().getDefaultDisplay()
import android.widget.LinearLayout;
                                                      .getMetrics(displayMetrics);
import android.widget.RelativeLayout;
                                                                     int width =
import android.content.Intent;
                                                      displayMetrics.widthPixels;
import java.util.List;
                                                                      int height =
                                                      displayMetrics.heightPixels;
public class addBookableMovie extends Activity
                                                                     Typeface customFont =
       private BookableMovie mov = null;
                                                      Typeface.createFromAsset(getAssets(),
                                                      "fonts/nasalization.ttf");
                                                                     TextView addTextView1 =
       @Override
       protected void onCreate(Bundle
                                                      findViewById(R.id.add bookable movie);
savedInstanceState)
                                                              addTextView1.setTypeface(customFont);
```

```
TextView addTextView2 =
findViewById(R.id.add cinema);
                                                              addButton1.setOnClickListener(new
        addTextView2.setTypeface(customFont);
                                                      View.OnClickListener()
               TextView addTextView3 =
findViewById(R.id.add runtime);
                                                                              @Override
                                                                             public void
       addTextView3.setTypeface(customFont);
                                                       onClick(View v)
               RelativeLayout relativeLayout =
                                                                                     EditText
findViewById(R.id.RelativeLayout);
                                                       editName = findViewById(R.id.editMovieName);
                                                                                     String name =
               ImageButton imageButton = new
                                                       editName.getText().toString();
ImageButton(this);
               LinearLayout.LayoutParams
                                                                                     EditText
                                                       editTitlePath =
buttonParams = new
LinearLayout.LayoutParams(width / 8, height /
                                                       findViewById(R.id.editMovieTitlePath);
                                                                                     String path =
                                                       editTitlePath.getText().toString();
               buttonParams.gravity =
Gravity.CENTER;
                                                              if(name.equals("") || path.equals(""))
        imageButton.setLayoutParams(buttonPara
ms):
                                                              Toast.makeText(getApplicationContext()
       imageButton.setImageResource(R.drawabl
                                                        "PLEASE ENTER THE DETAILS",
                                                       Toast.LENGTH SHORT).show();
e.back);
       imageButton.setScaleType(ImageView.Sca
                                                                                     else
leType.FIT START);
                                                                                             mov =
       imageButton.setBackground(null);
                                                      new BookableMovie (name, -1, path);
       imageButton.setOnClickListener(new
                                                              Toast.makeText(getApplicationContext()
View.OnClickListener()
                                                        "SUCCESSFULLY CREATED!",
                                                       Toast.LENGTH SHORT).show();
                       @Override
                       public void
onClick(View v)
                                                                      });
                              Intent intent =
new Intent();
                                                              linearLayout1.addView(addButton1);
        intent.setClass(getApplicationContext(
                                                                      LinearLayout linearLayout2 =
), activity3.class);
                                                       findViewById(R.id.InnerLinearLayout2);
       startActivity(intent);
                                                                      ImageButton addButton2 = new
                                                       ImageButton(this);
                                                                      LinearLayout.LayoutParams
                                                       addButtonParams2 = new
                                                       LinearLayout.LayoutParams(width / 6, height /
       relativeLayout.addView(imageButton);
                                                       6):
                                                                      addButtonParams2.gravity =
               LinearLayout linearLayout1 =
                                                      Gravity.CENTER;
findViewById(R.id.InnerLinearLayout1);
                                                              addButton2.setLayoutParams(addButtonPa
               ImageButton addButton1 = new
                                                      rams2);
ImageButton(this);
               LinearLayout.LayoutParams
                                                              addButton2.setImageResource(R.drawable
addButtonParams1 = new
                                                       .add);
LinearLayout.LayoutParams(width / 6, height /
                                                              addButton2.setScaleType(ImageView.Scal
6);
               addButtonParams1.gravity =
                                                       eType.FIT CENTER);
Gravity.CENTER;
                                                                      addButton2.setBackground(null);
       addButton1.setLayoutParams(addButtonPa
                                                              addButton2.setOnClickListener(new
rams1);
                                                      View.OnClickListener()
       addButton1.setImageResource(R.drawable
.add);
                                                                              @Override
                                                                              public void
       addButton1.setScaleType(ImageView.Scal
                                                       onClick(View v)
eType.FIT CENTER);
               addButton1.setBackground(null);
```

```
Edit.Text.
editName = findViewById(R.id.editName);
                                                                                      Edit.Text.
                                                       editStart =
                               String name =
editName.getText().toString();
                                                       findViewById(R.id.editStartDateTime);
                                                                                      String start =
                                                       editStart.getText().toString();
                              EditText
editNumSeats =
findViewById(R.id.editNumSeats);
                                                                                      EditText editEnd
                              String numSeats
                                                       = findViewById(R.id.editEndDateTime);
= editNumSeats.getText().toString();
                                                                                      String end =
                                                       editEnd.getText().toString();
        if(name.equals("") ||
numSeats.equals(""))
                                                               if(start.equals("") || end.equals(""))
       Toast.makeText(getApplicationContext()
                                                               Toast.makeText(getApplicationContext()
 "PLEASE ENTER THE DETAILS",
                                                        "PLEASE ENTER THE DETAILS",
Toast.LENGTH SHORT).show();
                                                       Toast.LENGTH SHORT).show();
                              else if(mov ==
                                                                                      else if(mov ==
null)
                                                       null)
       Toast.makeText(getApplicationContext()
                                                               Toast.makeText(getApplicationContext()
 "PLEASE CREATE A BOOKABLE MOVIE!",
                                                        "PLEASE CREATE A BOOKABLE MOVIE!",
Toast.LENGTH SHORT).show();
                                                       Toast.LENGTH SHORT).show();
                               else
                                                       if(mov.getCinemas().size() == 0)
                                      Cinema
cinema = new Cinema (name,
                                                               Toast.makeText(getApplicationContext()
Integer.parseInt(numSeats));
                                                        "PLEASE ADD A CINEMA!",
                                                       Toast.LENGTH SHORT).show();
       mov.addCinema(cinema);
                                                                                      else
       Toast.makeText(getApplicationContext()
 "SUCCESSFULLY CREATED!",
Toast.LENGTH SHORT).show();
                                                              mov.cinemas.get(mov.getCinemas().size(
                                                       ) - 1).addRuntime(start, end);
               });
                                                               Toast.makeText(getApplicationContext()
                                                        "SUCCESSFULLY CREATED!",
                                                       Toast.LENGTH SHORT).show();
       linearLayout2.addView(addButton2);
               LinearLayout linearLayout3 =
                                                                      });
findViewById(R.id.InnerLinearLayout3);
               ImageButton addButton3 = new
                                                               linearLayout3.addView(addButton3);
ImageButton(this);
               LinearLayout.LayoutParams
                                                                      LinearLayout linearLayout =
addButtonParams3 = new
                                                       findViewById(R.id.LinearLayout);
LinearLayout.LayoutParams(width / 6, height /
                                                                      ImageButton addButton = new
               addButtonParams3.gravity =
                                                       ImageButton(this);
Gravity.CENTER;
                                                                      LinearLayout.LayoutParams
                                                       addButtonParams = new
       addButton3.setLayoutParams(addButtonPa
                                                       LinearLayout.LayoutParams(width / 4, height /
rams3):
                                                       4):
                                                                      addButtonParams.gravity =
       addButton3.setImageResource(R.drawable
                                                       Gravity.CENTER;
.add);
                                                               addButton.setLayoutParams(addButtonPar
       addButton3.setScaleType(ImageView.Scal
                                                       ams);
eType.FIT CENTER);
               addButton3.setBackground(null);
                                                               addButton.setImageResource(R.drawable.
                                                       next screen);
       addButton3.setOnClickListener(new
                                                               addButton.setScaleType(ImageView.Scale
View.OnClickListener()
                                                       Type.FIT CENTER);
                                                                      addButton.setBackground(null);
                       @Override
                       public void
```

onClick(View v)

```
addButton.setOnClickListener(new
                                                              DataManager dataManager =
View.OnClickListener()
                                                       (DataManager) getApplication();
                       @Override
                                                              dataManager.addBookableMovie(mov);
                       public void
                                                              Toast.makeText(getApplicationContext()
onClick(View v)
                                                        "SUCCESSFULLY ADDED!",
                                                       Toast.LENGTH SHORT).show();
                              if(mov == null)
       Toast.makeText(getApplicationContext()
                                                                      });
 "PLEASE CREATE A BOOKABLE MOVIE!",
Toast.LENGTH SHORT).show();
                                                              linearLayout.addView(addButton);
                              else
```

addMovie.java



```
package com.app.spectraflix;
                                                                      int height =
                                                       displayMetrics.heightPixels;
import android.os.Bundle;
import android.app.Activity;
                                                                      Typeface customFont =
import android.widget.Spinner;
                                                       Typeface.createFromAsset(getAssets(),
                                                       "fonts/nasalization.ttf");
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ImageView;
                                                                      TextView addTextView =
import android.widget.ImageButton;
                                                       findViewById(R.id.add movie);
import android.graphics.Typeface;
import android.widget.TextView;
                                                              addTextView.setTypeface(customFont);
import android.view.View;
import android.view.Gravity;
                                                                      RelativeLayout relativeLayout =
import android.util.DisplayMetrics;
                                                       findViewById(R.id.RelativeLayout);
import android.widget.EditText;
import android.widget.Toast;
                                                                      ImageButton imageButton = new
import android.widget.LinearLayout;
                                                       ImageButton(this);
import android.widget.RelativeLayout;
                                                                      LinearLayout.LayoutParams
import android.content.Intent;
                                                      buttonParams = new
import java.util.List;
                                                      LinearLayout.LayoutParams(width / 8, height /
                                                       12);
public class addMovie extends Activity
                                                                     buttonParams.gravity =
                                                       Gravity.CENTER;
       private String selectedCategory;
                                                              imageButton.setLayoutParams(buttonPara
       @Override
                                                      ms):
       protected void onCreate(Bundle
savedInstanceState)
                                                              imageButton.setImageResource(R.drawabl
                                                       e.back);
       {
       super.onCreate(savedInstanceState);
                                                              imageButton.setScaleType(ImageView.Sca
                                                       leType.FIT START);
       setContentView(R.layout.add movie);
                                                              imageButton.setBackground(null);
               if(getActionBar() != null)
                       getActionBar().hide();
                                                              imageButton.setOnClickListener(new
                                                       View.OnClickListener()
               DisplayMetrics displayMetrics =
                                                                             @Override
new DisplayMetrics();
                                                                             public void
       getWindowManager().getDefaultDisplay()
                                                      onClick(View v)
.getMetrics(displayMetrics);
               int width =
                                                                                     Intent intent =
displayMetrics.widthPixels;
                                                      new Intent();
```

<pre>intent.setClass(getApplicationContext(), activity3.class);</pre>	<pre>addButton.setOnClickListener(new View.OnClickListener() {</pre>
<pre>startActivity(intent);</pre>	@Override
<pre>});</pre>	public void onClick(View v)
relativeLayout.addView(imageButton);	{
<pre>Spinner categorySpinner = findViewById(R.id.movieCategory);</pre>	String title = editTitle.getText().toString();
	EditText
String[] categories = {"Animated Movie", "Popular Movie", "Horror Movie", "Developer's Choice"};	<pre>editImagePath = findViewById(R.id.editImagePath);</pre>
ArrayAdapter <string></string>	= editImagePath.getText().toString();
<pre>categoriesAdapter = new ArrayAdapter<> (this, android.R.layout.simple spinner item,</pre>	EditText editTitleImagePath =
categories);	findViewById(R.id.editTitleImagePath); String
categoriesAdapter.setDropDownViewResou	titleImagePath =
<pre>rce(android.R.layout.simple_spinner_dropdown_i tem);</pre>	<pre>editTitleImagePath.getText().toString();</pre>
	EditText
<pre>categorySpinner.setAdapter(categoriesA dapter);</pre>	<pre>editTrailerId = findViewById(R.id.editTrailerId);</pre>
	= editTrailerId.getText().toString();
categorySpinner.setOnItemSelectedListe ner(new AdapterView.OnItemSelectedListener()	EditText
{ @Override public void	<pre>editCode = findViewById(R.id.editMovieEmbedCode);</pre>
onItemSelected(AdapterView parent, View view, int position, long id)	<pre>editCode.getText().toString();</pre>
selectedCategory	EditText editURL = findViewById(R.id.editMovieURL); String url =
<pre>parent.getItemAtPosition(position).toString(); }</pre>	editURL.getText().toString();
20 11	EditText
@Override public void	<pre>editLocalPath = findViewById(R.id.editMovieLocalPath);</pre>
<pre>onNothingSelected(AdapterView<?> parent)</pre>	String localPath = editLocalPath.getText().toString();
	EditText
<pre>LinearLayout linearLayout = findViewById(R.id.LinearLayout);</pre>	<pre>editDescription = findViewById(R.id.editMovieDescription);</pre>
<pre>ImageButton addButton = new ImageButton(this);</pre>	<pre>description = editDescription.getText().toString();</pre>
LinearLayout.LayoutParams addButtonParams = new LinearLayout.LayoutParams(width / 6, height /	<pre>int category = - 1;</pre>
6);	
<pre>addButtonParams.gravity = Gravity.CENTER;</pre>	<pre>if(selectedCategory.equals("Animated Movie"))</pre>
<pre>addButton.setLayoutParams(addButtonPar ams);</pre>	category = 1; else
	<pre>if(selectedCategory.equals("Popular Movie"))</pre>
<pre>addButton.setImageResource(R.drawable. add);</pre>	category = 2;
<pre>addButton.setScaleType(ImageView.Scale Type.FIT_CENTER);</pre>	else if(selectedCategory.equals("Horror Movie")) category
addButton.setBackground(null);	= 3;
	else

```
category
= 4:
                                                              DataManager dataManager =
                                                       (DataManager) getApplication();
       if(title.equals("") ||
                                                              dataManager.addMovie(newMovie);
imagePath.equals("") ||
titleImagePath.equals(""))
                                                              Toast.makeText(getApplicationContext()
                                                        "SUCCESSFULLY ADDED!",
       Toast.makeText(getApplicationContext()
                                                       Toast.LENGTH SHORT).show();
 "PLEASE ENTER THE DETAILS",
Toast.LENGTH SHORT).show();
                                                                      });
                              else
                                      Movie
                                                              linearLayout.addView(addButton);
newMovie = new Movie(title, imagePath,
titleImagePath, -1, -1, trailerId, code, url,
localPath, description, category);
```

removeBookableMovie.java



```
int height =
                                                       displayMetrics.heightPixels;
package com.app.spectraflix;
import android.os.Bundle;
                                                                      Typeface customFont =
import android.app.Activity;
                                                       Typeface.createFromAsset(getAssets(),
import android.widget.ImageView;
                                                       "fonts/nasalization.ttf");
import android.widget.ImageButton;
import android.graphics.Typeface;
                                                                      TextView removeTextView =
import android.widget.TextView;
                                                       findViewById(R.id.remove bookable movie);
import android.view.View;
import android.view.Gravity;
                                                              removeTextView.setTypeface(customFont)
import android.util.DisplayMetrics;
import android.widget.EditText;
import android.widget.Toast;
                                                                      RelativeLayout relativeLayout =
import android.widget.LinearLayout;
                                                       findViewById(R.id.RelativeLayout);
import android.widget.RelativeLayout;
import android.content.Intent;
                                                                      ImageButton imageButton = new
import java.util.List;
                                                       ImageButton(this);
                                                                      LinearLayout.LayoutParams
public class removeBookableMovie extends
                                                       buttonParams = new
Activity
                                                       LinearLayout.LayoutParams(width / 8, height /
       @Override
                                                                      buttonParams.gravity =
       protected void onCreate(Bundle
                                                       Gravity.CENTER;
savedInstanceState)
                                                              imageButton.setLayoutParams(buttonPara
                                                      ms);
       super.onCreate(savedInstanceState);
                                                              imageButton.setImageResource(R.drawabl
       setContentView(R.layout.remove bookabl
                                                       e.back);
                                                              \verb|imageButton.setScaleType(ImageView.Sca||
               if(getActionBar() != null)
                                                       leType.FIT START);
                       getActionBar().hide();
                                                              imageButton.setBackground(null);
               DisplayMetrics displayMetrics =
                                                              imageButton.setOnClickListener(new
new DisplayMetrics();
                                                       View.OnClickListener()
       getWindowManager().getDefaultDisplay()
.getMetrics(displayMetrics);
                                                                              @Override
               int width =
                                                                              public void
displayMetrics.widthPixels;
                                                       onClick(View v)
```

```
Intent intent =
new Intent();
                                                                             @Override
                                                                             public void
       intent.setClass(getApplicationContext(
                                                      onClick(View v)
), activity3.class);
                                                                                     EditText
       startActivity(intent);
                                                      editTitle = findViewById(R.id.editTitle);
                                                                                     String title =
                                                      editTitle.getText().toString();
       relativeLayout.addView(imageButton);
                                                              if(title.equals(""))
               LinearLayout linearLayout =
findViewById(R.id.LinearLayout);
                                                              Toast.makeText(getApplicationContext()
                                                       , "PLEASE ENTER THE TITLE!",
               ImageButton removeButton = new
                                                      Toast.LENGTH SHORT).show();
ImageButton(this);
              LinearLayout.LayoutParams
                                                                                     else
removeButtonParams = new
LinearLayout.LayoutParams(width / 6, height /
                                                              DataManager dataManager =
              removeButtonParams.gravity =
                                                      (DataManager) getApplication();
Gravity.CENTER;
                                                              dataManager.removeBookableMovie(title)
       removeButton.setLayoutParams(removeBut
                                                              Toast.makeText(getApplicationContext()
       removeButton.setImageResource(R.drawab
                                                       "SUCCESSFULLY REMOVED!",
                                                      Toast.LENGTH SHORT).show();
le.remove);
       removeButton.setScaleType(ImageView.Sc
aleType.FIT_CENTER);
                                                                     }):
       removeButton.setBackground(null);
                                                              linearLayout.addView(removeButton);
       removeButton.setOnClickListener(new
View.OnClickListener()
```

removeMovie.java



```
protected void onCreate (Bundle
package com.app.spectraflix;
                                                      savedInstanceState)
import android.os.Bundle;
import android.app.Activity;
                                                              super.onCreate(savedInstanceState);
import android.widget.ImageView;
import android.widget.ImageButton;
                                                              setContentView(R.layout.remove movie);
import android.graphics.Typeface;
import android.widget.TextView;
                                                                      if(getActionBar() != null)
import android.view.View;
                                                                             getActionBar().hide();
import android.view.Gravity;
import android.util.DisplayMetrics;
                                                                      DisplayMetrics displayMetrics =
import android.widget.EditText;
                                                      new DisplayMetrics();
import android.widget.Toast;
import android.widget.LinearLayout;
                                                              getWindowManager().getDefaultDisplay()
import android.widget.RelativeLayout;
                                                      .getMetrics(displayMetrics);
import android.content.Intent;
                                                                     int width =
import java.util.List;
                                                      displayMetrics.widthPixels;
                                                                      int height =
public class removeMovie extends Activity
                                                      displayMetrics.heightPixels;
       @Override
```

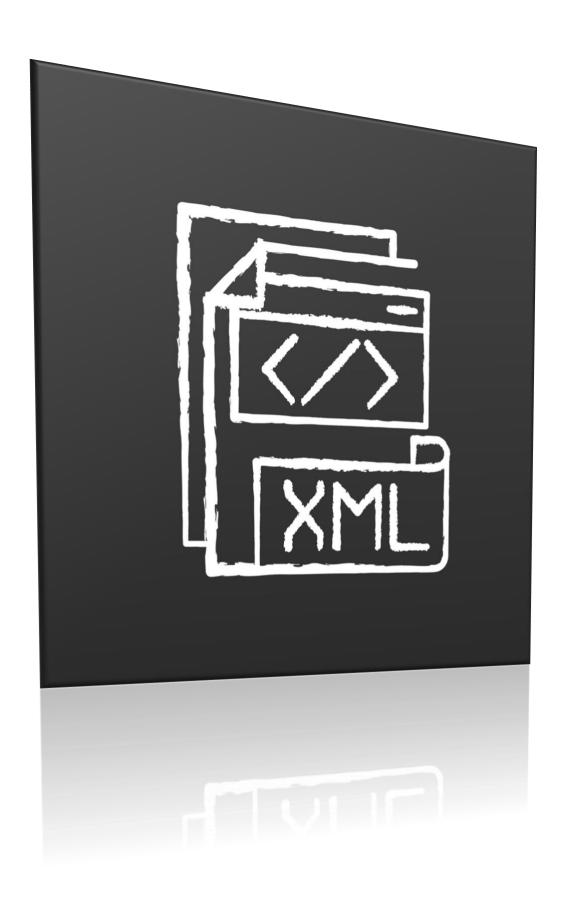
```
Typeface customFont =
                                                                      LinearLayout.LayoutParams
Typeface.createFromAsset(getAssets(),
                                                      removeButtonParams = new
"fonts/nasalization.ttf");
                                                      LinearLayout.LayoutParams(width / 6, height /
               TextView removeTextView =
                                                                      removeButtonParams.gravity =
findViewById(R.id.remove movie);
                                                       Gravity.CENTER;
       removeTextView.setTypeface(customFont)
                                                              removeButton.setLayoutParams(removeBut
                                                       tonParams);
               RelativeLayout relativeLayout =
                                                              removeButton.setImageResource(R.drawab
findViewById(R.id.RelativeLayout);
                                                       le.remove);
               ImageButton imageButton = new
                                                              removeButton.setScaleType(ImageView.Sc
                                                       aleType.FIT CENTER);
ImageButton(this);
               LinearLayout.LayoutParams
buttonParams = new
                                                              removeButton.setBackground(null);
LinearLayout.LayoutParams(width / 8, height /
                                                              removeButton.setOnClickListener(new
               buttonParams.gravity =
Gravity.CENTER;
                                                      View.OnClickListener()
                                                                              @Override
       imageButton.setLayoutParams(buttonPara
ms);
                                                                             public void
                                                      onClick(View v)
       imageButton.setImageResource(R.drawabl
e.back);
                                                      editTitle = findViewById(R.id.editTitle);
        imageButton.setScaleType(ImageView.Sca
                                                                                     String title =
leType.FIT START);
                                                      editTitle.getText().toString();
       imageButton.setBackground(null);
       imageButton.setOnClickListener(new
                                                              if(title.equals(""))
View.OnClickListener()
                                                              Toast.makeText(getApplicationContext()
                                                       , "PLEASE ENTER THE TITLE!",
                       @Override
                       public void
                                                      Toast.LENGTH SHORT).show();
onClick(View v)
                                                                                     else
                              Intent intent =
new Intent();
                                                              DataManager dataManager =
       intent.setClass(getApplicationContext(
                                                       (DataManager) getApplication();
), activity3.class);
                                                              dataManager.removeMovie(title);
       startActivity(intent);
                                                              Toast.makeText(getApplicationContext()
               });
                                                       , "SUCCESSFULLY REMOVED!",
                                                       Toast.LENGTH SHORT).show();
       relativeLayout.addView(imageButton);
                                                                      });
               LinearLayout linearLayout =
findViewById(R.id.LinearLayout);
                                                              linearLayout.addView(removeButton);
               ImageButton removeButton = new
                                                              }
ImageButton(this);
```

streamingMovies.java



```
this.popularMovies.add(movie);
package com.app.spectraflix;
import java.util.List;
import java.util.LinkedList;
                                                              public void
                                                      addDevelopersChoiceMovie (Movie movie)
public class streamingMovies
       private List<Movie> animatedMovies =
                                                              this.developersChoiceMovies.add(movie)
new LinkedList<Movie>();
       private List<Movie> horrorMovies = new
LinkedList<Movie>();
       private List<Movie> popularMovies =
                                                              public void addDocumentary(Movie
new LinkedList<Movie>();
                                                      movie)
      private List<Movie>
                                                                      this.documentaries.add(movie);
developersChoiceMovies = new
LinkedList<Movie>();
       private List<Movie> documentaries =
new LinkedList<Movie>();
       public List<Movie> getHorrorMovies()
               return this.horrorMovies;
       public List<Movie> getAnimatedMovies()
               return this.animatedMovies;
       public List<Movie> getPopularMovies()
               return this.popularMovies;
       public List<Movie>
getDevelopersChoiceMovies()
       {
               return
this.developersChoiceMovies;
       }
       public List<Movie> getDocumentaries()
               return this.documentaries;
       public void addHorrorMovie(Movie
movie)
               this.horrorMovies.add(movie);
       public void addAnimatedMovie (Movie
movie)
               this.animatedMovies.add(movie);
       public void addPopularMovie (Movie
```

movie)



AndroidManifest.xml



```
<?xml version = "1.0" encoding = "utf-8"?>
<manifest
   xmlns:android =
                                                               </activity>
"http://schemas.android.com/apk/res/android"
   package = "com.app.spectraflix"
   <uses-permission</pre>
                                                       ".MovieWebView" />
      android:name =
                                                       ".MovieURLView" />
"android.permission.INTERNET"
   />
   <uses-permission</pre>
                                                       ".SelectSeat" />
      android:name =
"android.permission.READ EXTERNAL STORAGE"
                                                       ".Ticket" />
                                                       ".addMovie" />
    <application
       android:name = ".DataManager"
                                                       ".removeMovie" />
       android:requestLegacyExternalStorage =
       android:allowBackup = "true"
        android:icon = "@drawable/app icon"
        android:label = "@string/app_name"
        android:theme = "@style/AppTheme"
        android:resizeableActivity = "true"
                                                       ".activity2" />
                                                       ".EnterDetails" />
        <activity
            android:name = ".MainActivity"
            android:label = "@string/app_name"
                                                       ".activity3" />
                                                           </application>
            <intent-filter>
                                                       </manifest>
               <action android:name =</pre>
"android.intent.action.MAIN" />
```

```
<category android:name =</pre>
"android.intent.category.LAUNCHER" />
            </intent-filter>
               <activity android:name =
".PreviewActivity" />
               <activity android:name =
               <activity android:name =
               <activity android:name =
".MovieLocalView" />
               <activity android:name =
               <activity android:name =
               <activity android:name =</pre>
               <activity android:name =
               <activity android:name =
".addBookableMovie" />
               <activity android:name =
".removeBookableMovie" />
               <activity android:name =</pre>
".MovieTrailerView" />
               <activity android:name =
               <activity android:name =
               <activity android:name =</pre>
```

main.xml



```
<?xml version="1.0" encoding="utf-8"?>
                                                              android:textStyle = "bold"
<GridLayout
                                                              android:paddingStart = "16dp"
       xmlns:android =
                                                              android:paddingEnd = "16dp"
"http://schemas.android.com/apk/res/android"
       android:layout width = "fill parent"
       android:layout_height = "fill_parent"
                                                              android:paddingTop = "8dp"
       android:rowCount = "2"
       android:columnCount = "1"
                                                              android:paddingBottom = "8dp"
       android:orientation = "horizontal"
       android:layout gravity = "fill"
                                                              android:gravity = "start"
                                                              android:layout marginBottom = "12dp"
       <LinearLayout
              xmlns:android =
                                                              android:letterSpacing = "0.05"
"http://schemas.android.com/apk/res/android"
               android:layout width =
                                                              android:shadowColor =
"match_parent"
                                                      "@android:color/black"
               android:layout_height = "0dp"
                                                              android:shadowDx = "2"
               android:background =
"@drawable/bq"
                                                              android:shadowDy = "2"
               android:orientation =
"vertical"
               android:gravity = "center"
                                                              android:shadowRadius = "3"
               android:layout rowWeight = "9"
                                                              <HorizontalScrollView</pre>
               <ScrollView
                      android:layout width =
"match parent"
                                                              android:id =
                                                      "@+id/horizontalScrollView"
                      android:layout height =
"match parent"
                                                              android:layout width = "match parent"
                      <LinearLavout
                                                              android:layout height = "wrap content"
       android:layout width = "wrap content"
                                                              android:layout marginStart = "1dp"
       android:layout height = "wrap content"
                                                              android:layout marginTop = "ldp"
                              android:gravity
= "center"
                                                              android:layout marginEnd = "1dp"
       android:orientation = "vertical"
                                                              android:layout marginBottom = "1dp"
                                                              android:foregroundGravity =
                                                      "center vertical"
                              <TextView
       android:id = "@+id/category label 1"
       android:layout width = "match parent"
                                                              <LinearLayout
       android:layout height = "wrap content"
                                                              android:id =
                                                      "@+id/animated movies scroll view"
       android:text = "Animated Movies"
                                                              android:layout width = "wrap content"
       android:textColor =
"@android:color/white"
                                                              android:layout height = "match parent"
       android:textSize = "30sp"
                                                              android:foregroundGravity = "center"
```

```
android:gravity = "center"
                                                              <LinearLayout
       android:orientation = "horizontal"
                                                              android:id =
                                                       "@+id/popular_movies_scroll_view"
                                                              android:layout width = "wrap content"
       </HorizontalScrollView>
                                                              android:layout height = "match parent"
                              <TextView
                                                              android:foregroundGravity = "center"
       android:id = "@+id/category label 2"
                                                              android:gravity = "center"
       android:layout width = "match parent"
                                                              android:orientation = "horizontal"
       android:layout height = "wrap content"
       android:text = "Popular Movies"
                                                              </HorizontalScrollView>
       android:textColor =
"@android:color/white"
                                                                                     <TextView
       android:textSize = "30sp"
                                                              android:id = "@+id/category label 3"
       android:textStyle = "bold"
                                                              android:layout width = "match parent"
       android:paddingStart = "16dp"
                                                              android:layout height = "wrap content"
                                                              android:text = "Horror Movies"
       android:paddingEnd = "16dp"
       android:paddingTop = "8dp"
                                                              android:textColor =
                                                       "@android:color/white"
       android:paddingBottom = "8dp"
                                                              android:textSize = "30sp"
       android:gravity = "start"
                                                              android:textStyle = "bold"
       android:layout marginBottom = "12dp"
                                                              android:paddingStart = "16dp"
       android:letterSpacing = "0.05"
                                                              android:paddingEnd = "16dp"
       android:shadowColor =
"@android:color/black"
                                                              android:paddingTop = "8dp"
       android:shadowDx = "2"
                                                              android:paddingBottom = "8dp"
       android:shadowDv = "2"
                                                              android:gravity = "start"
       android:shadowRadius = "3"
                                                              android:layout marginBottom = "12dp"
                                                              android:letterSpacing = "0.05"
       <HorizontalScrollView
                                                              android:shadowColor =
                                                       "@android:color/black"
       android:id =
                                                              android:shadowDx = "2"
"@+id/horizontalScrollView"
       android:layout width = "match parent"
                                                              android:shadowDy = "2"
       android:layout height = "wrap content"
                                                              android:shadowRadius = "3"
       android:layout marginStart = "1dp"
                                                              <HorizontalScrollView</pre>
       android:layout marginTop = "ldp"
       android:layout marginEnd = "ldp"
                                                              android:id =
                                                       "@+id/horizontalScrollView"
       android:layout marginBottom = "1dp"
                                                              android:layout width = "match parent"
       android: foregroundGravity =
"center_vertical"
                                                              android:layout height = "wrap content"
                                                              android:layout marginStart = "1dp"
```

```
android:layout marginTop = "ldp"
                                                              <HorizontalScrollView</pre>
       android:layout marginEnd = "1dp"
                                                              android:id =
                                                       "@+id/horizontalScrollView"
       android:layout marginBottom = "ldp"
                                                              android:layout width = "match parent"
       android:foregroundGravity =
"center vertical"
                                                              android:layout height = "wrap content"
                                                              android:layout marginStart = "1dp"
       <LinearLayout
                                                              android:layout marginTop = "1dp"
                                                              android:layout marginEnd = "1dp"
       android:id =
"@+id/horror movies scroll view"
                                                              android:layout marginBottom = "1dp"
       android:layout width = "wrap content"
                                                              android:foregroundGravity =
       android:layout height = "match parent"
                                                       "center vertical"
       android:foregroundGravity = "center"
       android:gravity = "center"
                                                              <LinearLayout
       android:orientation = "horizontal"
                                                              android:id =
                                                       "@+id/developers choice scroll view"
                                                              android:layout width = "wrap content"
       </HorizontalScrollView>
                                                              android:layout height = "match parent"
                              <TextView
                                                              android:foregroundGravity = "center"
       android:id = "@+id/category label 4"
                                                              android:gravity = "center"
       android:layout width = "match parent"
                                                              android:orientation = "horizontal"
       android:layout height = "wrap content"
       android:text = "Developer's Choice"
                                                              </HorizontalScrollView>
       android:textColor =
                                                                              </LinearLayout>
"@android:color/white"
                                                                      </ScrollView>
                                                              </LinearLayout>
       android:textSize = "30sp"
                                                              <GridLayout
       android:textStyle = "bold"
                                                                      xmlns:android =
                                                       "http://schemas.android.com/apk/res/android"
       android:paddingStart = "16dp"
                                                                      android:layout_height = "0dp"
                                                                      android:layout width =
                                                       "match parent"
       android:paddingEnd = "16dp"
                                                                      android:layout rowWeight = "1"
       android:paddingTop = "8dp"
                                                                      android:background = "#ACD5C2"
                                                                      android:rowCount = "1"
                                                                      android:columnCount = "3"
       android:paddingBottom = "8dp"
                                                                      android:orientation =
       android:gravity = "start"
                                                       "horizontal"
                                                                      android:layout gravity = "fill"
       android:layout marginBottom = "12dp"
       android:letterSpacing = "0.05"
                                                                      <ImageButton</pre>
                                                                             android:id =
       android:shadowColor =
                                                       "@+id/icon button1"
"@android:color/black"
                                                                              android:layout height =
                                                       "match parent"
       android:shadowDx = "2"
                                                                             android:layout width =
                                                       "0dp"
       android:shadowDy = "2"
                                                              android:layout_columnWeight = "1"
       android:shadowRadius = "3"
                                                                             android:src =
                                                       "@drawable/icon1"
```

```
android:background =
                                                                               android:padding = "8dp"
"?android:attr/selectableItemBackgroundBorderl
ess"
                                                                       <ImageButton</pre>
       android:contentDescription = "Icon
                                                                               android:id =
button"
                                                        "@+id/icon button3"
                       android:scaleType =
                                                                               android: layout height =
"centerInside"
                                                        "match_parent"
                       android:padding = "8dp"
                                                                               android:layout width =
                                                        "0dp"
                                                               android:layout_columnWeight = "1"
               <ImageButton</pre>
                       android:id =
                                                                               android:src =
"@+id/icon button2"
                                                        "@drawable/icon3"
                       android: layout height =
                                                                               android:background =
"match parent"
                                                        "?android:attr/selectableItemBackgroundBorderl
                       android:layout width =
"0dp"
                                                               android:contentDescription = "Icon
                                                       button"
       android:layout_columnWeight = "1"
                       android:src =
                                                                               android:scaleType =
"@drawable/icon2"
                                                        "centerInside"
                       android:background =
                                                                               android:padding = "8dp"
"?android:attr/selectableItemBackgroundBorderl
                                                               </GridLayout>
       android:contentDescription = "Icon
button"
                                                        </GridLayout>
                       android:scaleType =
```

activity2.xml

"centerInside"



```
<?xml version="1.0" encoding="utf-8"?>
       xmlns:android = "http://schemas.android.com/apk/res/android"
   android:layout width = "fill parent"
   android:layout_height = "fill_parent"
       android:rowCount = "2"
       android:columnCount = "1"
       android:orientation = "horizontal"
       android:layout gravity = "fill"
       <LinearLayout
               xmlns:android = "http://schemas.android.com/apk/res/android"
               android:layout_width = "match_parent"
               android:layout height = "0dp"
               android:background = "@drawable/bg"
               android:orientation = "vertical"
               android:gravity = "center"
               android:layout_rowWeight = "9"
               <ScrollView
                      android:layout width = "match parent"
                      android:layout_height = "match_parent"
                       <LinearLayout
                              android:id = "@+id/ImageLinearLayout"
                              android:layout_width = "match_parent"
                              android:layout height = "wrap content"
```

```
android:gravity = "center"
                                android:orientation = "vertical"
                                android:padding = "16dp"
                </ScrollView>
        </LinearLayout>
        <GridLayout
                xmlns:android = "http://schemas.android.com/apk/res/android"
                android:layout_height = "0dp"
                android:layout width = "match parent"
                android:layout_rowWeight = "1"
                android:background = "#ACD5C2"
                android:rowCount = "1"
                android:columnCount = "3"
                android:orientation = "horizontal"
                android:layout_gravity = "fill"
                <ImageButton</pre>
                        android:id = "@+id/icon button1"
                        android:layout height = "match parent"
                        android:layout_width = "0dp"
android:layout_columnWeight = "1"
android:src = "@drawable/icon1"
                        android:background = "?android:attr/selectableItemBackgroundBorderless"
                        android:contentDescription = "Icon button"
                        android:scaleType = "centerInside"
             android:padding = "8dp"
                <ImageButton</pre>
                        android:id = "@+id/icon_button2"
                        android:layout height = "match parent"
                        android:layout width = "Odp"
                        android:layout columnWeight = "1"
                        android:src = "@drawable/icon2"
                        android:background = "?android:attr/selectableItemBackgroundBorderless"
                        android:contentDescription = "Icon button"
                        android:scaleType = "centerInside"
             android:padding = "8dp"
                />
                <ImageButton</pre>
                        android:id = "@+id/icon button3"
                        android:layout height = "match parent"
                        android:layout_width = "0dp"
                        android:layout_columnWeight = "1"
android:src = "@drawable/icon3"
                        android:background = "?android:attr/selectableItemBackgroundBorderless"
                        android:contentDescription = "Icon button"
                        android:scaleType = "centerInside"
             android:padding = "8dp"
                />
        </GridLayout>
</GridLayout>
```

activity3.xml



```
<?xml version = "1.0" encoding = "utf-8"?>
                                                              android:textSize = "30sp"
<GridLayout
                                                              android:textStyle = "bold"
       xmlns:android =
                                                              android:paddingStart = "16dp"
"http://schemas.android.com/apk/res/android"
   android:layout width = "fill parent"
   android:layout_height = "fill_parent"
                                                              android:paddingEnd = "16dp"
       android:rowCount = "2"
       android:columnCount = "1"
                                                              android:paddingTop = "8dp"
       android:orientation = "horizontal"
       android:layout gravity = "fill"
                                                              android:paddingBottom = "8dp"
                                                              android:gravity = "center"
       <LinearLayout
              xmlns:android =
                                                              android:layout marginBottom = "12dp"
"http://schemas.android.com/apk/res/android"
                                                              android:letterSpacing = "0.05"
               android:layout width =
"match_parent"
               android:layout_height = "0dp"
                                                              android:shadowColor =
               android:orientation =
                                                      "@android:color/black"
"vertical"
               android:gravity = "center"
                                                              android:shadowDx = "2"
               android:layout rowWeight = "9"
                                                              android:shadowDy = "2"
       >
               <ScrollView
                                                              android:shadowRadius = "3"
                      android:layout width =
"match parent"
                      android: layout height =
                                                                                     <LinearLayout
"match parent"
                                                              android:id =
                                                      "@+id/add remove movie layout"
                      <LinearLayout
                                                              android:layout width = "match parent"
       android:layout width = "match parent"
                                                              android:layout height = "wrap content"
       android:layout height = "wrap content"
                                                              android:gravity = "center"
                              android:gravity
= "center"
                                                              android:orientation = "vertical"
       android:background = "@drawable/bg"
                                                              android:padding = "16dp"
       android:orientation = "vertical"
                              android:padding
= "16dp"
                                                                                     <TextView
                                                              android:id =
                              <TextView
                                                      "@+id/add remove bookable movie"
       android:id = "@+id/add remove movie"
                                                              android:layout width = "match parent"
       android:layout width = "match parent"
                                                              android:layout height = "wrap content"
       android:layout height = "wrap content"
                                                              android:text = "Add / Remove Bookable
                                                      Movie"
       android:text = "Add / Remove Movie"
                                                              android:textColor =
       android:textColor =
                                                      "@android:color/white"
"@android:color/white"
                                                              android:textSize = "30sp"
```

```
android:layout width =
       android:textStyle = "bold"
                                                        "0dp"
                                                               android:layout columnWeight = "1"
       android:paddingStart = "16dp"
                                                                               android:src =
       android:paddingEnd = "16dp"
                                                        "@drawable/icon1"
                                                                               android:background =
       android:paddingTop = "8dp"
                                                        "?android:attr/selectableItemBackgroundBorderl
       android:paddingBottom = "8dp"
                                                               android:contentDescription = "Icon
                                                       button"
       android:gravity = "center"
                                                                               android:scaleType =
                                                        "centerInside"
       android:layout marginBottom = "12dp"
                                                                    android:padding = "8dp"
       android:letterSpacing = "0.05"
       android:shadowColor =
                                                                        <ImageButton</pre>
"@android:color/black"
                                                                               android:id =
                                                        "@+id/icon button2"
       android:shadowDx = "2"
                                                                               android:layout height =
                                                        "match parent"
       android:shadowDv = "2"
                                                                               android:layout width =
                                                        "0dp"
       android:shadowRadius = "3"
                                                               android:layout columnWeight = "1"
                                                                               android:src =
                                                        "@drawable/icon2"
                               <LinearLayout
                                                                               android:background =
       android:id =
                                                        "?android:attr/selectableItemBackgroundBorderl
"@+id/add remove bookable movie layout"
                                                        ess"
       android:layout width = "match parent"
                                                               android:contentDescription = "Icon
                                                        button"
       android:layout height = "wrap content"
                                                                               android:scaleType =
                                                        "centerInside"
                                                                    android:padding = "8dp"
       android:gravity = "center"
                                                                       />
       android:orientation = "vertical"
                                                                        <ImageButton</pre>
       android:padding = "16dp"
                                                                               android:id =
                                                        "@+id/icon button3"
                                                                               android: layout height =
                       </LinearLayout>
                                                        "match parent"
               </ScrollView>
                                                                               android:layout width =
       </LinearLayout>
                                                        "0dp"
       <GridLayout
                                                               android:layout columnWeight = "1"
               xmlns:android =
                                                                               android:src =
                                                        "@drawable/icon3"
"http://schemas.android.com/apk/res/android"
               android:layout height = "0dp"
                                                                               android:background =
                                                        "?android:attr/selectableItemBackgroundBorderl
               android:layout width =
"match parent"
                                                        ess"
               android:layout rowWeight = "1"
               android:background = "#ACD5C2"
android:rowCount = "1"
                                                               android:contentDescription = "Icon
                                                        button"
               android:columnCount = "3"
                                                                               android:scaleType =
               android:orientation =
                                                        "centerInside"
                                                                    android:padding = "8dp"
"horizontal"
               android:layout gravity = "fill"
                                                               </GridLayout>
               <ImageButton</pre>
                       android:id =
                                                        </GridLayout>
"@+id/icon button1"
                       android: layout height =
"match parent"
```

add_bookable_movie.xml



```
android:text = "Add Bookable Movie"
<RelativeLayout
       xmlns:android =
"http://schemas.android.com/apk/res/android"
                                                              android:textColor =
       android:id = "@+id/RelativeLayout"
                                                       "@android:color/white"
       android:layout width = "match parent"
       android:layout height = "match parent"
                                                              android:textSize = "30sp"
       android:padding = "16dp"
       android:background = "@drawable/bg"
                                                              android:textStyle = "bold"
                                                              android:paddingStart = "16dp"
       <ScrollView
                                                              android:paddingEnd = "16dp"
               android:layout width =
"match parent"
               android:layout height =
                                                              android:paddingTop = "8dp"
"match_parent"
                                                              android:paddingBottom = "8dp"
               <LinearLayout
                                                              android:gravity = "center"
                      xmlns:android =
"http://schemas.android.com/apk/res/android"
                                                              android:layout marginBottom = "12dp"
                      android:id =
"@+id/LinearLayout"
                                                              android:letterSpacing = "0.05"
                      android:layout width =
"match parent"
                                                              android:shadowColor =
                       android:layout height =
                                                       "@android:color/black"
"match parent"
                                                              android:shadowDx = "2"
                       android:orientation =
"vertical"
                                                              android:shadowDy = "2"
                       android:gravity =
"center"
                                                              android:shadowRadius = "3"
                       android:padding =
"16dp"
                       android:background =
"@drawable/bg"
                                                                                     <EditText
                                                              android:id = "@+id/editMovieName"
                       <LinearLayout
                                                              android:layout width = "match parent"
                              xmlns:android =
"http://schemas.android.com/apk/res/android"
                              android:id =
                                                              android:layout height = "wrap content"
"@+id/InnerLinearLayout1"
                                                              android:hint = "Enter the title"
       android:layout width = "match parent"
                                                              android:textColor = "#000000"
       android:layout height = "match parent"
                                                              android:singleLine = "true"
       android:orientation = "vertical"
                              android:gravity
                                                              android:inputType = "text"
= "center"
                              android:padding
                                                              android:textSize = "18sp"
= "16dp"
                      >
                                                              android:layout marginBottom = "16dp"
                                                              android:padding = "10dp"
                              <TextView
       android:id = "@+id/add bookable movie"
                                                                                     <EditText
       android:layout width = "match parent"
                                                              android:id = "@+id/editMovieTitlePath"
       android:layout height = "wrap content"
```

```
android:layout width = "match parent"
                                                              android:shadowColor =
                                                      "@android:color/black"
       android:layout height = "wrap content"
                                                              android:shadowDx = "2"
       android:hint = "Enter the movie's
                                                              android:shadowDy = "2"
title image path. Eg :
/storage/emulated/0/img.jpg"
                                                              android:shadowRadius = "3"
       android:textColor = "#000000"
                                                                                     />
       android:layout marginBottom = "16dp"
                                                                                     <EditText
       android:inputType = "text"
                                                              android:id = "@+id/editName"
       android:textSize = "18sp"
                                                              android:layout width = "match parent"
       android:singleLine = "true"
                                                              android:layout height = "wrap content"
       android:padding = "10dp"
                                                              android:hint = "Enter the Cinema's
                                                      name"
                                                              android:textColor = "#000000"
                      </LinearLayout>
                       <LinearLayout
                                                              android:singleLine = "true"
                              xmlns:android =
"http://schemas.android.com/apk/res/android"
                                                              android:inputType = "text"
                              android:id =
"@+id/InnerLinearLayout2"
                                                              android:textSize = "18sp"
       android:layout width = "match parent"
                                                              android:layout marginBottom = "16dp"
                                                              android:padding = "10dp"
       android:layout height = "match parent"
       android:orientation = "vertical"
                                                                                     <EditText
                              android:gravity
= "center"
                                                              android:id = "@+id/editNumSeats"
                              android:padding
= "16dp"
                                                              android:layout width = "match parent"
                              <TextView
                                                              android:layout height = "wrap content"
                                                              android:hint = "Enter the number of
       android:id = "@+id/add cinema"
                                                      seats in the cinema"
       android:layout width = "match parent"
                                                              android:textColor = "#000000"
       android:layout height = "wrap content"
                                                              android:layout marginBottom = "16dp"
       android:text = "Add Cinema"
                                                              android:inputType = "phone"
       android:textColor =
"@android:color/white"
                                                              android:textSize = "18sp"
       android:textSize = "30sp"
                                                              android:singleLine = "true"
       android:textStyle = "bold"
                                                              android:padding = "10dp"
       android:paddingStart = "16dp"
                                                                             </LinearLayout>
       android:paddingEnd = "16dp"
                                                                             <LinearLayout
       android:paddingTop = "8dp"
                                                                                     xmlns:android =
                                                      "http://schemas.android.com/apk/res/android"
       android:paddingBottom = "8dp"
                                                                                     android:id =
                                                      "@+id/InnerLinearLayout3"
       android:gravity = "center"
                                                              android:layout width = "match parent"
       android:layout marginBottom = "12dp"
                                                              android:layout height = "match parent"
       android:letterSpacing = "0.05"
                                                              android:orientation = "vertical"
```

```
android:gravity
                                                              android:layout width = "match parent"
= "center"
                              android:padding
= "16dp"
                                                              android:layout height = "wrap content"
                                                              android:hint = "When does it start?
                              <TextView
                                                       [Format : yyyy-MM-dd HH:mm]"
       android:id = "@+id/add runtime"
                                                              android:textColor = "#000000"
       android:layout width = "match parent"
                                                              android:singleLine = "true"
       android:layout height = "wrap content"
                                                              android:inputType = "text"
       android:text = "Add Runtime"
                                                              android:textSize = "18sp"
       android:textColor =
                                                              android:layout marginBottom = "16dp"
"@android:color/white"
                                                              android:padding = "10dp"
       android:textSize = "30sp"
       android:textStyle = "bold"
                                                                                     <EditText
                                                              android:id = "@+id/editEndDateTime"
       android:paddingStart = "16dp"
       android:paddingEnd = "16dp"
                                                              android:layout width = "match parent"
       android:paddingTop = "8dp"
                                                              android:layout height = "wrap content"
                                                              android:hint = "When does it end?
       android:paddingBottom = "8dp"
                                                       [Format : yyyy-MM-dd HH:mm]"
       android:gravity = "center"
                                                              android:textColor = "#000000"
       android:layout marginBottom = "12dp"
                                                              android:layout marginBottom = "16dp"
       android:letterSpacing = "0.05"
                                                              android:inputType = "text"
       android:shadowColor =
"@android:color/black"
                                                              android:textSize = "18sp"
       android:shadowDx = "2"
                                                              android:singleLine = "true"
       android:shadowDy = "2"
                                                              android:padding = "10dp"
       android:shadowRadius = "3"
                                                                             </LinearLayout>
                                                                      </LinearLayout>
                              <EditText
                                                              </ScrollView>
                                                      </RelativeLayout>
       android:id = "@+id/editStartDateTime"
```

add_movie.xml



```
<RelativeLayout
                                                                     android:layout width =
                                                      "match_parent"
       xmlns:android =
"http://schemas.android.com/apk/res/android"
                                                                     android: layout height =
       android:id = "@+id/RelativeLayout"
                                                      "match_parent"
       android:layout width = "match parent"
       android:layout height = "match parent"
       android:padding = "16dp"
                                                                     <LinearLayout
       android:background = "@drawable/bg"
                                                                             xmlns:android =
                                                      "http://schemas.android.com/apk/res/android"
                                                                             android:id =
       <ScrollView
                                                      "@+id/LinearLayout"
```

```
android:layout width =
"match parent"
                                                              android:layout marginBottom = "16dp"
                       android:layout height =
                                                                                     android:padding
                                                       = "10dp"
"match parent"
                       android:orientation =
"vertical"
                       android:gravity =
                                                                              <EditText
"center"
                                                                                     android:id =
                       android:padding =
                                                       "@+id/editImagePath"
"16dp"
                       android:background =
                                                              android:layout width = "match parent"
"@drawable/bg"
                                                              android:layout height = "wrap content"
                                                                                     android:hint =
                                                       "Enter the movie's poster path. Eg :
                       <TextView
                                                       /storage/emulated/0/img.jpg"
                              android:id =
"@+id/add movie"
                                                              android:textColor = "#000000"
       android:layout width = "match parent"
                                                              android:layout marginBottom = "16dp"
       android:layout height = "wrap content"
                              android:text =
                                                              android:inputType = "text"
"Add Movie"
                                                                                     android:textSize
                                                       = "18sp"
       android:textColor =
"@android:color/white"
                                                              android:singleLine = "true"
                              android:textSize
                                                                                     android:padding
= "30sp"
                                                       = "10dp"
                                                                              />
       android:textStyle = "bold"
                                                                              <FditTevt
       android:paddingStart = "16dp"
                                                                                     android:id =
                                                       "@+id/editTitleImagePath"
       android:paddingEnd = "16dp"
                                                              android:layout_width = "match parent"
       android:paddingTop = "8dp"
                                                              android:layout_height = "wrap content"
                                                                                     android:hint =
       android:paddingBottom = "8dp"
                              android:gravity
                                                       "Enter the movie's title image path. Eg :
= "center"
                                                       /storage/emulated/0/img.jpg"
       android:layout marginBottom = "12dp"
                                                              android:singleLine = "true"
       android:letterSpacing = "0.05"
                                                              android:layout marginBottom = "16dp"
       android:shadowColor =
                                                              android:textColor = "#000000"
"@android:color/black"
                              android:shadowDx
                                                              android:inputType = "text"
= "2"
                                                                                     android:textSize
                              android:shadowDy
                                                       = "18sp"
= "2"
                                                                                     android:padding
                                                       = "10dp"
       android:shadowRadius = "3"
                       />
                                                                              <EditText
                       <EditText
                                                                                     android:id =
                                                       "@+id/editTrailerId"
                              android:id =
"@+id/editTitle"
                                                              android:layout width = "match parent"
       android:layout width = "match parent"
                                                              android:layout height = "wrap content"
       android:layout height = "wrap content"
                                                                                     android:hint =
                              android:hint =
                                                       "Enter the movie's trailer Id (youtube). Eg :
"Enter the title"
                                                       LKFuXETZUsI [OPTIONAL]"
       android:textColor = "#000000"
                                                              android:singleLine = "true"
       android:singleLine = "true"
                                                              android:layout marginBottom = "16dp"
       android:inputType = "text"
                                                              android:textColor = "#000000"
                              android:textSize
= "18sp"
                                                              android:inputType = "text"
```

```
android:textSize
= "18sp"
                                                               android:layout height = "wrap content"
                                                                                      android:hint =
                              android:padding
                                                       "Enter the movie's local path. Eg :
= "10dp"
                                                       /storage/emulated/0/vid.mp4 [OPTIONAL]"
                       />
                       <EditText
                                                               android:singleLine = "true"
                              android:id =
"@+id/editMovieEmbedCode"
                                                               android:layout marginBottom = "16dp"
       android:layout width = "match parent"
                                                               android:textColor = "#000000"
       android:layout height = "wrap content"
                                                               android:inputType = "text"
                              android:hint =
                                                                                      android:textSize
"Enter the movie's embed code (HTML).
                                                       = "18sp"
[OPTIONAL]"
                                                                                      android:padding
                                                       = "10dp"
       android:singleLine = "true"
                                                                              />
       android:layout marginBottom = "16dp"
                                                                              <EditText
                                                                                      android:id =
       android:textColor = "#000000"
                                                       "@+id/editMovieDescription"
       android:inputType = "text"
                                                               android:layout width = "match parent"
                              android:textSize
= "18sp"
                                                               android:layout height = "wrap content"
                              android:padding
                                                                                      android:hint =
= "10dp"
                                                       "Enter the movie's description [OPTIONAL]"
                       />
                                                               android:singleLine = "true"
                       <EditText
                              android:id =
                                                               android:layout marginBottom = "16dp"
"@+id/editMovieURL"
                                                               android:textColor = "#000000"
       android:layout width = "match parent"
                                                               android:inputType = "text"
       android:layout_height = "wrap content"
                                                                                      android:textSize
                                                       = "18sp"
                              android:hint =
"Enter the movie's URL. [OPTIONAL]"
                                                                                      android:padding
                                                       = "10dp"
       android:singleLine = "true"
                                                                              />
       android:layout marginBottom = "16dp"
                                                                              <Spinner
                                                                                      android:id =
       android:textColor = "#000000"
                                                       "@+id/movieCategory"
       android:inputType = "text"
                                                               android:layout width = "wrap content"
                              android:textSize
= "18sp"
                                                               android:layout marginBottom = "16dp"
                              android:padding
= "10dp"
                                                               android:layout height = "wrap content"
                       />
                                                                                      android:gravity
                                                       = "center"
                       <EditText
                                                                              />
                              android:id =
"@+id/editMovieLocalPath"
                                                                      </LinearLayout>
                                                               </ScrollView>
       android:layout_width = "match parent"
                                                       </RelativeLayout>
```

enter_details.xml



```
android:gravity
                                                      = "center"
<RelativeLayout
       xmlns:android =
"http://schemas.android.com/apk/res/android"
                                                              android:layout marginBottom = "12dp"
       android:id = "@+id/RelativeLayout"
       android:layout width = "match parent"
                                                              android:letterSpacing = "0.05"
       android:layout height = "match parent"
       android:padding = 16dp
                                                             android:shadowColor =
       android:background = "@drawable/bg"
                                                      "@android:color/black"
                                                                                     android:shadowDx
                                                      = "2"
       <ScrollView
                                                                                     android:shadowDy
                                                      = "2"
              android:layout width =
"match parent"
              android:layout height =
                                                              android:shadowRadius = "3"
"match parent"
                                                                             <EditText
               <LinearLayout
                                                                                     android:id =
                      xmlns:android =
                                                      "@+id/editName"
"http://schemas.android.com/apk/res/android"
                                                              android:layout_width = "match parent"
                      android:id =
"@+id/LinearLayout"
                      android:layout width =
                                                              android:layout height = "wrap content"
                                                                                    android:hint =
"match parent"
                      android:layout height =
                                                      "Enter your name"
"match parent"
                                                             android:textColor = "#000000"
                      android:orientation =
"vertical"
                                                              android:singleLine = "true"
                      android:gravity =
"center"
                                                              android:inputType = "text"
                      android:padding =
"16dp"
                                                                                     android:textSize
                      android:background =
                                                      = "18sp"
"@drawable/bg"
                                                              android:layout marginBottom = "16dp"
                                                                                     android:padding
                      <TextView
                                                      = "10dp"
                              android:id =
                                                                             />
"@+id/details label"
                                                                             <EditText
       android:layout width = "match parent"
                                                                                    android:id =
                                                      "@+id/editPhoneNum"
       android:layout height = "wrap content"
                                                              android:layout width = "match parent"
                              android:text =
"Enter Details"
                                                              android:layout height = "wrap content"
       android:textColor =
                                                                                     android:hint =
                                                      "Enter your phone no."
"@android:color/white"
                              android:textSize
                                                              android:textColor = "#000000"
= "30sp"
       android:textStyle = "bold"
                                                              android:layout marginBottom = "16dp"
       android:paddingStart = "16dp"
                                                              android:inputType = "phone"
                                                                                     android:textSize
       android:paddingEnd = "16dp"
                                                      = "18sp"
       android:paddingTop = "8dp"
                                                             android:singleLine = "true"
                                                                                    android:padding
       android:paddingBottom = "8dp"
                                                      = "10dp"
```

```
/>
                                                                                    android:id =
                                                      "@+id/cinemaSpinner"
                      <EditText
                             android:id =
                                                              android:layout width = "wrap content"
"@+id/editEmail"
                                                              android:layout marginBottom = "16dp"
       android:layout width = "match parent"
                                                              android:layout_height = "wrap content"
       android:layout height = "wrap content"
                                                                                    android:gravity
                              android:hint =
                                                      = "center"
"Enter your email address"
       android:singleLine = "true"
                                                                             <Spinner
                                                                                    android:id =
       android:layout marginBottom = "16dp"
                                                      "@+id/runtimeSpinner"
       android:textColor = "#000000"
                                                              android:layout width = "wrap content"
       android:inputType = "textEmailAddress"
                                                              android:layout_height = "wrap_content"
                              android:textSize
                                                                                    android:gravity
= "18sp"
                                                      = "center"
                              android:padding
                                                                             />
= "10dp"
                      />
                                                                     </LinearLayout>
                                                              </scrollView>
                      <Spinner
                                                      </RelativeLayout>
```

movie_url_view.xml



movie_webview.xml



preview.xml



android:layout width = "400dp"

```
android:layout_height = "500dp"
<RelativeLayout
                                                                      android:orientation =
                                                       "vertical"
   xmlns:android =
"http://schemas.android.com/apk/res/android"
       android:id = "@+id/RelativeLayout"
                                                              android:layout alignParentBottom =
    android:layout_width = "match_parent"
                                                       "true"
    android:layout height = "match parent"
                                                               android:layout alignParentEnd = "true"
                                                                      android:layout_margin = "16dp"
                                                                      android:gravity = "center"
    <ImageView
                                                                      android:background =
        android:id = "@+id/background image"
                                                       "#3000000"
        android:layout width = "match parent"
        android:layout height = "match parent"
        android:scaleType = "centerCrop"
                                                                      <TextView
        android:layout_alignParentTop = "true"
                                                                              android:id =
        android:layout alignParentStart =
                                                       "@+id/watch movie"
"true"
                                                                              android:text = "Watch
                                                       Movie"
                                                                              android:textColor =
                                                       "@android:color/white"
        android:id = "@+id/LinearLayout"
                                                                              android:textSize =
        android:layout width = "wrap content"
                                                       "20sp"
        android:layout height = "wrap content"
                                                                              android:textStyle =
        android:orientation = "vertical"
                                                       "bold"
        android:layout alignParentBottom =
                                                                              android:layout width =
"true"
                                                       "match parent"
        android:layout alignParentStart =
                                                                              android: layout height =
"true"
                                                       "wrap content"
        android:layout margin = "16dp"
                                                                              android:letterSpacing =
       />
                                                       "0.1"
                                                                              android:gravity =
       <LinearLayout
                                                       "center"
                                                                      />
               android:id =
"@+id/WatchMoviesLayout"
```

```
<GridLayout
                                                               android:layout height = "0dp"
                       android:layout width =
"match_parent"
                       android:layout height =
                                                               android:layout rowWeight = "1"
"fill parent"
                                                                                       android:src =
                                                        "@drawable/movie_url"
                       android:orientation =
"vertical"
                       android:rowCount = "3"
                                                               android:scaleType = "fitCenter"
                       android:columnCount =
11 11
                                                               android:background = "@null"
                       <ImageButton</pre>
                                                                               <ImageButton</pre>
                                                                                       android:id =
                              android:id =
"@+id/icon_button1"
                                                        "@+id/icon_button3"
       android:layout width = "match parent"
                                                               android:layout width = "match parent"
       android:layout height = "0dp"
                                                               android:layout height = "0dp"
       android:layout rowWeight = "1"
                                                               android:layout rowWeight = "1"
                              android:src =
                                                                                       android:src =
"@drawable/embed movie"
                                                        "@drawable/local path"
       android:scaleType = "fitCenter"
                                                               android:scaleType = "fitCenter"
       android:background = "@null"
                                                               android:background = "@null"
                       <ImageButton</pre>
                                                                       </GridLayout>
                              android:id =
                                                               </LinearLayout>
"@+id/icon button2"
                                                        </RelativeLayout>
```

remove_bookable_movie.xml

android:layout width = "match parent"



```
<RelativeLayout
                                                                                 android:orientation =
       xmlns:android =
                                                         "vertical"
"http://schemas.android.com/apk/res/android"
                                                                                 android:gravity =
       android:id = "@+id/RelativeLayout"
                                                         "center"
       android:layout_width = "match_parent"
android:layout_height = "match_parent"
                                                                                 android:padding =
                                                         "16dp"
       android:padding = "16dp"
                                                                                 android:background =
       android:background = "@drawable/bg"
                                                         "@drawable/bg"
       <ScrollView
                                                                                 <TextView
               android:layout_width =
                                                                                         android:id =
"match parent"
                                                         "@+id/remove bookable movie"
               android:layout_height =
"match_parent"
                                                                 android:layout width = "match parent"
                                                                 android:layout height = "wrap content"
                                                                                         android:text =
               <LinearLayout
                                                         "Remove Bookable Movie"
                       xmlns:android =
"http://schemas.android.com/apk/res/android"
                       android:id =
                                                                 android:textColor =
"@+id/LinearLayout"
                                                         "@android:color/white"
                                                                                         android:textSize
                       android:layout_width =
"match parent"
                                                         = "30sp"
                       android: layout height =
"match parent"
                                                                 android:textStyle = "bold"
```

```
android:id =
       android:paddingStart = "16dp"
                                                      "@+id/editTitle"
       android:paddingEnd = "16dp"
                                                              android:layout width = "match parent"
                                                              android:layout height = "wrap content"
       android:paddingTop = "8dp"
                                                                                     android:hint =
       android:paddingBottom = "8dp"
                                                      "Enter the title"
                              android:gravity
= "center"
                                                              android:textColor = "#000000"
       android:layout marginBottom = "12dp"
                                                              android:singleLine = "true"
       android:letterSpacing = "0.05"
                                                              android:inputType = "text"
                                                                                     android:textSize
                                                      = "18sp"
       android:shadowColor =
"@android:color/black"
                              android:shadowDx
                                                              android:layout marginBottom = "16dp"
                                                                                     android:padding
                                                      = "10dp"
                              android:shadowDy
= "2"
                                                                             />
       android:shadowRadius = "3"
                                                                     </LinearLayout>
                      />
                                                             </ScrollView>
                                                      </RelativeLayout>
                      <EditText
```

remove_movie.xml



```
<RelativeLayout
       xmlns:android =
                                                                             <TextView
                                                                                     android:id =
"http://schemas.android.com/apk/res/android"
       android:id = "@+id/RelativeLayout"
                                                      "@+id/remove_movie"
       android:layout width = "match parent"
       android:layout_height = "match_parent"
                                                              android:layout width = "match parent"
       android:padding = "16dp"
                                                              android:layout height = "wrap content"
       android:background = "@drawable/bg"
                                                                                     android:text =
                                                      "Remove Movie"
       <ScrollView
              android:layout width =
                                                              android:textColor =
"match parent"
                                                      "@android:color/white"
              android: layout height =
                                                                                     android:textSize
"match_parent"
                                                      = "30sp"
                                                              android:textStyle = "bold"
               <LinearLayout
                                                              android:paddingStart = "16dp"
                      xmlns:android =
"http://schemas.android.com/apk/res/android"
                      android:id =
                                                              android:paddingEnd = "16dp"
"@+id/LinearLayout"
                      android:layout width =
                                                              android:paddingTop = "8dp"
"match parent"
                      android:layout height =
                                                              android:paddingBottom = "8dp"
"match parent"
                                                                                     android:gravity
                                                      = "center"
                      android:orientation =
"vertical"
                                                              android:layout marginBottom = "12dp"
                      android:gravity =
"center"
                                                              android:letterSpacing = "0.05"
                      android:padding =
"16dp"
                      android:background =
                                                              android:shadowColor =
                                                      "@android:color/black"
"@drawable/bg"
```

```
android:shadowDx
= "2"
                                                             android:textColor = "#000000"
                              android:shadowDy
= "2"
                                                             android:singleLine = "true"
       android:shadowRadius = "3"
                                                             android:inputType = "text"
                                                                                    android:textSize
                                                      = "18sp"
                      <EditText
                             android:id =
                                                             android:layout_marginBottom = "16dp"
"@+id/editTitle"
                                                                                    android:padding
                                                      = "10dp"
       android:layout width = "match parent"
       android:layout height = "wrap content"
                                                                     </LinearLayout>
                                                             </ScrollView>
                             android:hint =
"Enter the title"
                                                      </RelativeLayout>
```

select_seat.xml



```
<RelativeLayout
                                                             android:layout height = "wrap content"
       xmlns:android =
                                                                                   android:text =
"http://schemas.android.com/apk/res/android"
                                                     "Select Seat"
       android:id = "@+id/RelativeLayout"
       android:layout_width = "match_parent"
android:layout_height = "match_parent"
                                                             android:textColor =
                                                     "@android:color/white"
       android:padding = "16dp"
                                                                                   android:textSize
       android:background = "@drawable/bg"
                                                     = "30sp"
                                                             android:textStyle = "bold"
       <ScrollView
android:layout_width = "match_parent"
                                                             android:paddingStart = "16dp"
                                                             android:paddingEnd = "16dp"
              android:layout_height =
"match parent"
                                                             android:paddingTop = "8dp"
                                                             android:paddingBottom = "8dp"
              <LinearLavout
                      xmlns:android =
                                                                                   android:gravity
"http://schemas.android.com/apk/res/android"
                                                     = "center"
                      android:id =
"@+id/linearlayout"
                                                             android:layout marginBottom = "12dp"
                      android:layout width =
"match parent"
                                                             android:letterSpacing = "0.05"
                      android:layout height =
"match parent"
                                                             android:shadowColor =
                                                     "@android:color/black"
                      android:orientation =
"vertical"
                                                                                   android:shadowDx
                      android:gravity =
                                                     = "2"
"center"
                                                                                   android:shadowDy
                                                     = "2"
                      android:padding =
"16dp"
                      android:background =
                                                             android:shadowRadius = "3"
"@drawable/bg"
                                                                     </LinearLayout>
                      <TextView
                                                             </ScrollView>
                             "@+id/seat label"
       android:layout width = "match parent"
```

ticket.xml



```
<LinearLayout
       xmlns:android = "http://schemas.android.com/apk/res/android"
       android:layout width = "match parent"
       android:layout_height = "match_parent"
android:orientation = "vertical"
       android:gravity = "center"
       android:padding = "16dp"
       android:background = "@drawable/ticket bg"
       <TextView
               android:layout width = "match parent"
               android:layout_height = "wrap_content"
               android:text = "TICKET"
               android:textColor = "@android:color/white"
               android:textSize = "30sp"
               android:textStyle = "bold"
               android:paddingStart = "16dp"
               android:paddingEnd = "16dp'
               android:paddingTop = "8dp"
               android:paddingBottom = "8dp"
               android:gravity = "center"
               android:layout_marginBottom = "12dp"
               android:letter\overline{S}pacing = "0.05"
               android:shadowColor = "@android:color/black"
               android:shadowDx = "2"
               android:shadowDy = "2"
               android:shadowRadius = "3"
       <TextView
               android:id = "@+id/ticket details"
               android:layout width = "match parent"
               android:layout_height = "wrap content"
               android:textColor = "@android:color/white"
               android:textSize = "20sp"
               android:textStyle = "bold"
               android:paddingStart = "16dp"
               android:paddingEnd = "16dp"
               android:paddingTop = "8dp"
               android:paddingBottom = "8dp"
               android:gravity = "center"
</LinearLayout>
```

rounded_textview.xml





VARIABLE DESCRIPTION

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
resMovieTitlePath, resTitleImagePath	int	Stores the numerical path of the movie title image located in the res directory
movieName	String	Stores the name of the movie
movieTitlePath	String	Stores the external path of the movie title image
cinemas	List <cinema></cinema>	Stores the cinemas which run the movie
animatedMovies	List <movie></movie>	Stores the animated movies
horrorMovies	List <movie></movie>	Stores the horror movies
popularMovies	List <movie></movie>	Stores the popular movies
developersChoiceMovi es	List <movie></movie>	Stores the movies chosen by the developer (i.e. Omanshu)
displayMetrics, dM	DisplayMetrics	An object of the DisplayMetrics class used to collect the width and height of the screen

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
width	int	Stores the width of the screen in pixels
height	int	Stores the height of the screen in pixels
customFont	Typeface	An object of the Typeface class which creates a custom font (i.e. nasalization.ttf)
removeTextView, addTextView, movieView, bookableMovieView, movieTextView, textView, seatTextView	TextView	An object of the TextView class which stores text view used to display text in the app
intent	Intent	An object of the Intent class used to switch between activities and transfer data between them
relativeLayout	RelativeLayout	An object of the RelativeLayout class used to store widgets
linearLayout, linearLayout2	LinearLayout	An object of the LinearLayout class used to store widgets
editTitle, editImagePath, editTitleImagePath, editTrailerId, editCode, editURL, editLocalPath, editDescription, editTitlePath, editNumSeats, editStart, editEnd, editName, editPhoneNum, editEmail	EditText	An object of the EditText class used to take text inputs from the user (title, image path, title image path, trailer Id, embed code, movie URL, movie local path, description, title path, number of seats, start time, end time, name of he user, phone number, email address of the user)

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
title	String	Stores the title of the movie
dataManager	DataManager	An object of the custom class "DataManager" used to share data and objects between activities
webView	WebView	An object of the WebView class used to display WebViews
webSettings	WebSettings	An object of the WebSettings class used to manipulate the settings of WebView
movieEmbedCode	String	Stores the HTML code of the movie (through the streaming service, Eg : GDrive) used in the WebView
movieURL	String	Stores the URL of the movie(through the streaming service) used in the VideoView
videoView	VideoView	An object of the VideoView class used to play videos and movies
uri	Uri	An object of the Uri class used to parse the video and image paths of String data type
mediaController	MediaController	An object of the MediaController class used to give functionalities to the ViewView

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
movieTrailerId	String	Stores the YouTube video Id of the trailer (of the movie)
trailerEmbedCode	String	Stores the HTML code of the YouTube trailer used in the WebView
moviePath	String	Stores the external movie path located in the device storage
resImagePath	int	Stores the external movie poster path located in the res directory
description	String	Stores the description of the movie
localPath	String	Stores the external path of the movie located in the device storage
buttonParams, addButtonParams	LayoutParams	An object of the LayoutParams class used to modify Buttons and ImageButtons
imageButton	ImageButton	An object used to create or access ImageButton widget
categorySpinner	Spinner	An object of the Spinner class used to create a Spinner of various movie categories
selectedCategory	String	Stores the movie category selected by the user
categoriesAdapter	ArrayAdapter <strin g=""></strin>	An adapter used to create the categories using a String array
imagePath	String	Stores the image path of the movie
titleImagePath, path	String	Stores the title image path of the movie

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
trailerId	String	Stores the movie trailer Id(YouTube Id)
code	String	Stores the movie embed code
url	String	Stores the movie URL
description	String	Stores the decription of the movie
category	int	Stores the selected movie category in integer format
newMovie	Movie	An object of the custom class "Movie" used to stores the newly added movie
name	String	Stores the name of the Cinema
seatRowCol, rowCol	int[]	Stores data in this format -> [No. of rows, No. of Columns]
runtimes	List <runtime></runtime>	A list of the custom class "Runtime"
formatter	DateTimeFormatter	Used to format DateTime data
start, startDateTime	LocalDateTime	Stores the date and time when the runtime begins
end, endDateTime	LocalDateTime	Stores the date and time when the runtime ends
rt	Runtime	Stores the Runtime objects contained in the runtimes variable
startRt	LocalDateTime	Stores the date and time when the runtime "rt" begins
endRt	LocalDateTime	Stores the date and time when the runtime "rt" ends
runtime	Runtime	Stores the newly created Runtime object

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
i	int	Used to control the outer loop
j	int	Used to control the inner nested loop
listOfFactors	List <int[]></int[]>	Stores the factors pair in a list
num	int	Stores the number given to the "getMinRowCol()" function
factors	int[]	Stores the factors pair
outArr	int[]	Stores the final factors pair
diff	int	Stores the difference between the factors pair
movies	List <movie></movie>	Stores the movies in a list
bookableMovies	List <bookablemovie></bookablemovie>	Stores the bookable movies in a list
cinema1, cinema2	Cinema	Cinema objects contained in the bookable movies
movie1, movie2, movie3, movie4	BookableMovie	BookableMovie objects contained in the "bookableMovies" list
text	String	Stores the text displayed in the ticket
button1, button2, button3	ImageButton	Stores the Image Button widgets of the bottom navigation bar
mov_final	BookableMovie	Stores the newly created BookableMovie object
addMovieButton	ImageButton	Stores the ImageButton widget used to add a movie

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
addMovieParams	LayoutParams	Stores the parameters of "addMovieButton"
addBookableMovieButt on	ImageButton	Stores the ImageButton widget used to add a bookable movie
addBookableMoviePara ms	LayoutParams	Stores the parameters of "addBookableMovieBut ton"
removeMovieButton	ImageButton	Stores the ImageButton widget used to remove a movie
removeMovieParams	LayoutParams	Stores the parameters of "removeMovieButton"
removeBookableMovieB utton	ImageButton	Stores the ImageButton widget used to remove a bookable movie
removeBookableMovieP arams	LayoutParams	Stores the parameters of "removeBookableMovie Button"
<pre>addTextView1, addTextView2, addTextView3</pre>	TextView	Stores the text views contained in the "addBookableMovie" activity
addButton, addButton1, addButton2, addButton3	ImageButton	Stores the image buttons contained in the "addBookableMovie" activity
addButtonParams, addButtonParams1, addButtonParams2, addButtonParams2	LayoutParams	Stores the parameters of the image buttons contained in the "addBookableMovie" activity

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
seats	int[][]	Stores a double dimensional array containing the seats in the cinema
bgImage	ImageView	Stores the ImageView object containing the background image
buttonsLayout	LinearLayout	An object of LinearLayout class containing the ImageButtons for streaming the movie
buttonsParams	LayoutParams	Stores the parameters for the buttons containined in the "buttonsLayout"
trailerButton	ImageButton	An object of the ImageButton class used to display the trailer
trailerParams	LayoutParams	Stores the parameters for "trailerButton"
buttonIds	int[]	Stores the Ids of the buttons in the "buttonsLayout"
strIds	String[]	Stores the Ids of buttons contained in the "buttonsLayout" in String format
strData	String[]	Stores the data to be passed into the intent through the buttons contained in the "buttonsLayout"
classes	Class []	Stores the activity classes to be accessed through the buttons in the "buttonsLayout"
button	ImageButton	Accesses each button contained in the "buttonsLayout" inside a for loop

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
movieStr	String	Accesses each String data contained in the "strData" array
buttonArray	<pre>ImageButton[][]</pre>	Stores an ImageButton for each seat in the cinema
<pre>movie_index, cinema_index, runtime_index</pre>	int	Stores the index of the exact runtime to be accessed inside the cinema within the movie class
selected_row	int	Stores the row in which the selected seat is located
selected_col	int	Stores the column in which the selected seat is located
backButton	ImageButton	Stores the ImageButton widget used to go to the previous activity
backButtonParams	LayoutParams	Stores the parameters for the "backButton"
data, data_new	String[]	Stores the data for the ticket
rows	int	Stores the number of rows in the cinema
cols	int	Stores the number of columns in the Cinema
gridLayout	GridLayout	An object of the "GridLayout" class which stores the ImageButtons representing the seats
currentRow	int	Stores the row number in the outer nested for loop
currentCol	int	Stores the column number in the inner nested for loop
bookButton	ImageButton	Used to book a seat in the cinema

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
bookButtonParams	LayoutParams	Stores the parameters for the "bookButton"
new_data	String[]	Stores the modified data for the ticket
actionBar	ActionBar	Stores the top action bar widget
<pre>textView1, textView2, textView3, textView4</pre>	TextView	Stores the TextView widget for each category
categories	streamingMovies	An object of the custom "streamingMovies" class used to get the movies in each category
mov	Movie	Stores each movie contained in each category of "categories"
animatedMovies, popularMovies, horrorMovies, developersChoiceMovi es	List <movie></movie>	Stores a list containing movies in each category
moviesList	List <movie>[]</movie>	Stores each category in a list
scrollView	int	Stores the HorizontalScrollView Id for a specific category
scrollViews	int[]	Stores the HorizontalScrollView Id for all categories
parentLayout	LinearLayout	Stores the LinearLayout widget containing a specific HorizontalScrollView
newLayout	LinearLayout	Stores a new LinearLayout for the newly added movie

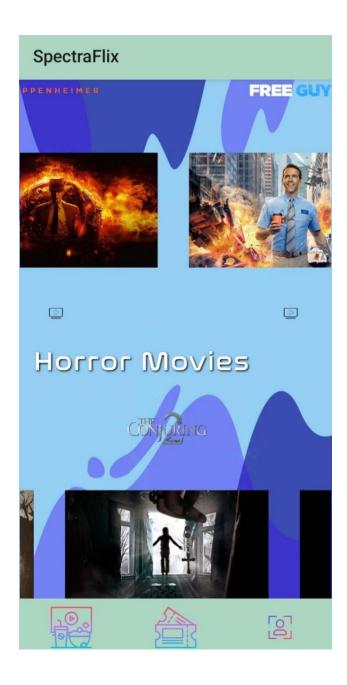
VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
movieTitleView	ImageView	Stores the ImageView widget for displaying the title image
movieTitleParams	LayoutParams	Stores the parameters for the "movieTitleView"
moviePosterView	ImageView	Stores the ImageView widget for displaying the poster of the movie
moviePosterParams	LayoutParams	Stores the parameters for the "moviePosterView"
file	File	An object of the File class which accepts the external image path
imageUri	Uri	Converts the image path to uri format
bitmap	Bitmap	An object of the Bitmap class used to create a bitmap of the image
selectedCinema	String	Stores the name of the cinema selected by the user
selectedRuntime	String	Stores the runtime selected by the user
detailsTextView	TextView	Stores the TextView widget for the "EnterDetails" activity
movie	BookableMovie	Stores the movie for which the booking is to be done
cinemaSpinner	Spinner	Stores the Spinner widget containing the cinemas to be selected
cinemaNames	String[]	Stores the names of the cinemas
cinemaAdapter	ArrayAdapter <string></string>	Stores the Adapter for the "cinemaSpinner"

VARIABLE (S)	DATA TYPE	PURPOSE
[Some variables perform the same function and have the same data type and hence, they are grouped together]		
cinemas_final	List <cinema></cinema>	Stores the list of the Cinemas
cinema_item	Cinema	Stores a Cinema object in a for loop
runtimes	List <runtime></runtime>	Stores all the runtimes of a specific cinema
runtimes_string	String[]	Stores the startDateTime of each runtime in "runtimes"
runtimeSpinner	Spinner	Stores the Spinner containing the runtimes to be selected
runtimeAdapter	ArrayAdapter <string></string>	Stores the Adapter for the "runtimeSpinner"
nextButton	ImageButton	Store the ImageButton which leads to the "SelectSeat" activity
nextButtonParams	LayoutParams	Stores the parameters for the "nextButton"
enteredName	String	Stores the name of the user
enteredPhoneNum	String	Stores the phone number of the user
enteredEmail	String	Stores the email address of the user
data	String[]	Stores the data for the ticket
numSeats	String	Stores the number of seats in the cinema in String format



View Movies (For streaming and watching trailers)





Preview Movie

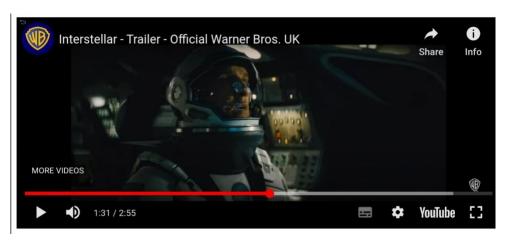
Watch Movie (WebView)



Watch Movie(URL)



Watch Trailer
(YouTube /
WebView)



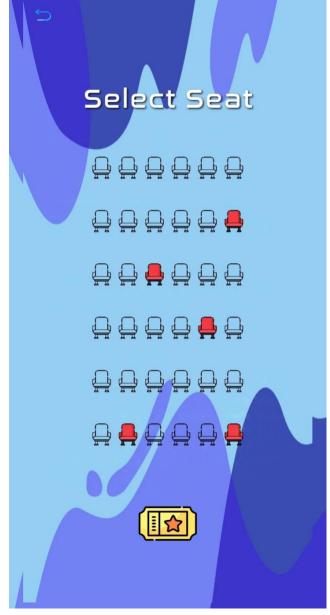


View Movies (For
booking tickets)



Enter Your Details
And Select Cinema
And Runtime

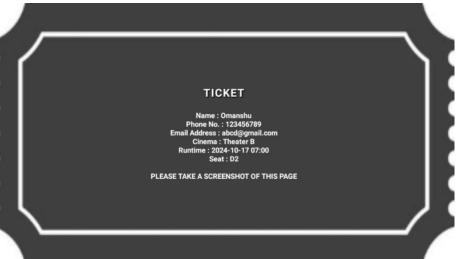
Select Your Desired Seat

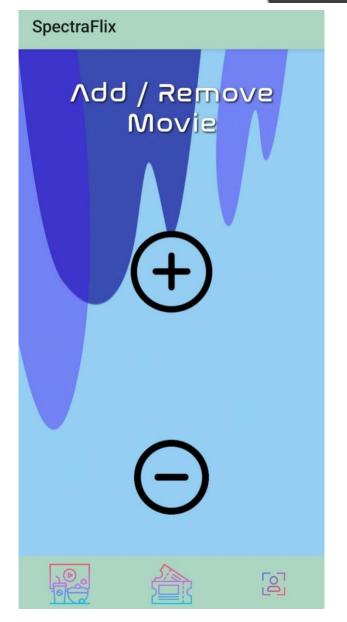


Print Ticket

Email
Ru

PLEASE TA





Add / Remove Movie and Bookable Movie

Add Movie

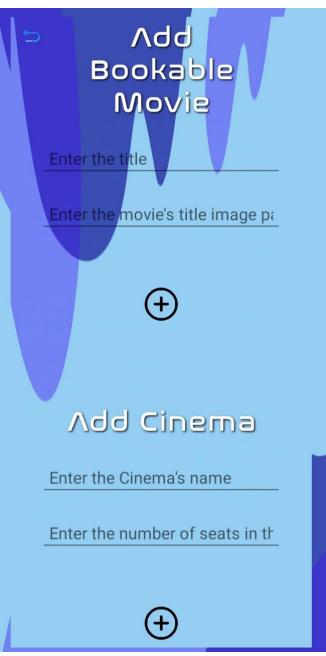




Remove Movie

Add Bookable Movie





Remove Bookable
Movie

Conclusion



In conclusion, **SpectraFlix** is a comprehensive movie streaming and booking platform that delivers a seamless user experience. With its ability to stream movies from various sources, provide interactive trailer viewing, and offer an intuitive seat booking system, the app meets the diverse needs of modern movie enthusiasts.

Through the development of **SpectraFlix**, I have gained invaluable insights into Java programming, XML layout design, and the Android development module. I have learned how to integrate multiple features into a single cohesive app, ensuring both performance and user satisfaction. This project has not only sharpened my technical skills but also enhanced my ability to create user-friendly applications