

# BIENVENIDO

## Sistemas Operativos Móviles y Embebidos: Resolución de evaluación Hito 4

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*Asignatura:* Sistemas Móviles y Embebidos


*Carrera:* INGENIERÍA DE SISTEMAS

*Paralelo:* SOM (1)


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*fecha:* 10/05/2020


My Playlist

Playlist 1


escuchar

Playlist 2


escuchar

Playlist 3


escuchar

Playlist 4

escuchar

Playlist 5

escuchar

Playlist 6

escuchar

Playlist 1

music 1

▶

⏸

□

music 2

▶

⏸

□

music 3

▶

⏸

□

music 4

▶

⏸

□

music 5

▶

⏸

□

music 6

▶

⏸

□

music 7

▶

⏸

□

music 8

▶

⏸

□

music 9

▶

⏸

□

music 10

▶

⏸

□

music 11

▶

⏸

□

music 12

▶

⏸

□

Playlist 1

music 1

⏸

□

music 2

▶

□

music 3

▶

□

music 4

▶

□

music 5

▶

□

music 6

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music 7

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music 8

▶

□

music 9

▶

□

music 10

▶

□

music 11

▶

□

music 12

▶

□



# Se Espera El Siguiente Resultado

*Créditos: Ing. William R. Barra Paredes*



# RESOLUCION DEFENSA HITO 4

## Instrucciones

### MY PLAYLIST APP

El objetivo es crear un PLAYLIST en donde se listara una lista de álbumes, en donde cada ALBUM contiene una lista de canciones. Para poder generar este listado se deberá de utilizar un RecyclerView.

Cada ALBUM contiene cierta cantidad de canciones, cada canción tiene disponibles 3 OPCIONES. PLAY - PAUSE - STOP. De manera similar para generar este listado se debe utilizar el concepto de RecyclerView.

# A DESARROLLARSE 2

## PREGUNTA 1

- Cuando se presiona en el TEXT(Ejem Playlist 5) debe de mostrar un mensaje(TOAST), una descripcion acerca de ese ALBUM(Ejem. "My Playlist 5").
- Cuando se presiona en el BUTTON(escuchar) debe de redirigir a un nuevo activity, en donde se mostrara nuevamente un RecyclerView con el listado de las canciones que tiene ese ALBUM



# CODIGO DESARROLLADO

## LAYOUT rl\_list\_item

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/rlListItem"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:padding="8dp"
    android:background="@color/colorPrimaryDark"
    >
    <de.hdodenhof.circleimageview.CircleImageView
        android:id="@+id/civItem"
        android:layout_width="60dp"
        android:layout_height="60dp"
        android:src="@mipmap/ic_launcher"
        />
    <TextView
        android:id="@+id/tvImage"
        android:layout_width="120dp"
        android:layout_height="wrap_content"
        android:text="@string/canada"
        android:layout_marginStart="20dp"
        android:layout_toRightOf="@+id/civItem"
        android:layout_centerVertical="true"
        android:padding="0dp"
        android:textColor="@color/colorNew"
        android:textSize="25sp">
    </TextView>
    <Button
        android:id="@+id/escuchar"
        android:layout_width="110dp"
        android:layout_height="wrap_content"
        android:text="@string/escuchar"
        android:layout_marginStart="2dp"
        android:layout_toRightOf="@+id/tvImage"
        android:layout_centerVertical="true"

        android:padding="0dp"
        android:background="@drawable/style"
        android:textColor="@color/colorPrimary"
        android:textSize="20sp">
    </Button>
    <Button
        android:id="@+id/auto"
        android:layout_width="120dp"
        android:layout_height="wrap_content"
        android:text="@string/new1"
        android:layout_marginStart="2dp"
        android:layout_toRightOf="@+id/escuchar"
        android:layout_centerVertical="true"
        android:padding="0dp"
        android:background="@drawable/style"
        android:textColor="@color/colorPrimary"
        android:textSize="20sp">
    </Button>
```

## mainActivity

```
package com.example.hito4ronaldlluscoreciclerview;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.os.Bundle;
import android.util.Log;
import com.example.hito4ronaldlluscoreciclerview.Adapter.RVAdapter;
import java.util.ArrayList;
import java.util.Arrays;
public class MainActivity extends AppCompatActivity {
    public static final String TAG = "MainActivity";
    //nuevo
    public RVAdapter adapter;
    public RecyclerView recyclerView;
    private ArrayList<String> names = new ArrayList<>();
    private ArrayList<String> imageUrl = new ArrayList<>();
    //para todas las imagenes
    private final String imgurl
    ="V40gA40,yB3d2qH,9jMbaX2,rYndmdq,sypYnSP,HBeK1ot,YCqbt8r,eLk31XX,4ZH7F0,XzffKgy,DJabk5C";
    private final String imgname ="Playlist 1,Playlist 2,Playlist 3,Playlist 4,Playlist 5,Playlist 6,Playlist 7,Playlist 8,Playlist 9,Playlist 10,Playlist 11";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        _initImageBitmaps();
        _initRecyclerView();
    }
    private void _initImageBitmaps()
    {
        Log.d(TAG,"initImageBitmaps: preparing bitmaps.");

        imageUrl.addAll(Arrays.asList(imgurl.split(",")));
        names.addAll(Arrays.asList(imgname.split(",")));
    }
    private void _initRecyclerView()
    {
        Log.d(TAG,"initRecyclerView: init recyclerview.");
        recyclerView = findViewById(R.id.rvContainer);
        adapter = new RVAdapter(this,names,imageurl);
        recyclerView.setAdapter(adapter);
        recyclerView.setLayoutManager(new LinearLayoutManager(this));
    }
}
```



# CODIGO DESARROLLADO

## RVAADAPTER

```
package com.example.hito4ronaldlluscoreciclerview.Adapter;
import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;
import androidx.recyclerview.widget.RecyclerView;
import com.bumptech.glide.Glide;
import com.example.hito4ronaldlluscoreciclerview.R;
import com.example.hito4ronaldlluscoreciclerview.playlist;
import java.util.ArrayList;
public class RVAAdapter extends RecyclerView.Adapter<ViewHolder> {
    private static final String TAG = "RVAAdapter";
    private Context context;
    private ArrayList<String> imageNames = new ArrayList<>();
    private ArrayList<String> images = new ArrayList<>();
    public RVAAdapter(Context context, ArrayList<String> imageNames, ArrayList<String> images) {
        this.context = context;
        this.imageNames = imageNames;
        this.images = images;
    }
    @Override
    public ViewHolder onCreateViewHolder(ViewGroup viewGroup, int viewType)
    {
        View view = LayoutInflater.from(viewGroup.getContext()).inflate(R.layout.rl_list_item, viewGroup, false);
        ViewHolder vHolder = new ViewHolder(view);
        return vHolder;
    }
    @Override
    public void onBindViewHolder(ViewHolder holder, final int position) {
        String url = "https://i.imgur.com/";
        //set image
        Glide.with(context)
            .asBitmap()
            .load(url + images.get(position) + ".png") //images.get(position)
            .into(holder.getCircleImage());
        holder.getTvImage().setText(imageNames.get(position));
        holder.getTvImage().setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(context, "My " + imageNames.get(position), Toast.LENGTH_SHORT).show();
            }
        });
        holder.getContext();
        holder.getEscuchar().setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(context, playlist.class);
                context.startActivity(intent);
            }
        });
    }
    @Override
    public int getItemCount() {
        return imageNames.size();
    }
}
```

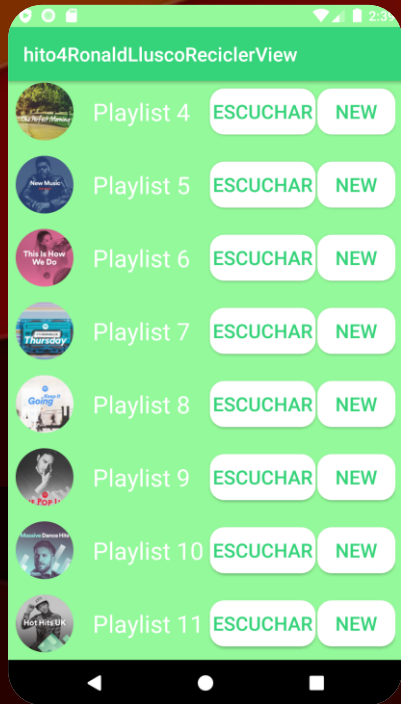
## viewHolder

```
package com.example.hito4ronaldlluscoreciclerview.Adapter;
import android.content.Context;
import android.view.View;
import android.widget.Button;
import android.widget.RelativeLayout;
import android.widget.TextView;
import androidx.recyclerview.widget.RecyclerView;
import com.example.hito4ronaldlluscoreciclerview.R;
import de.hdodenhof.circleimageview.CircleImageView;
public class ViewHolder extends RecyclerView.ViewHolder {
    private RelativeLayout trContainer;
    private CircleImageView circleImage;
    private TextView tvImage;
    private Context context;
    private Button escuchar;
    private Button neww;
    public ViewHolder(View itemView) {
        super(itemView);
        initComponents(itemView);
    }
    public Button getNeww() {
        return neww;
    }
    private void initComponents(View itemView){
        trContainer = itemView.findViewById(R.id.rllListItem);
        circleImage = itemView.findViewById(R.id.civItem);
        tvImage = itemView.findViewById(R.id.tvImage);
        escuchar = itemView.findViewById(R.id.escuchar);
        neww = itemView.findViewById(R.id.auto);
        context=itemView.getContext();
    }
    public Context getContext() {
        return context;
    }
    public Button getEscuchar() {
        return escuchar;
    }
    public RelativeLayout getTrContainer() {
        return trContainer;
    }
    public CircleImageView getCircleImage() {
        return circleImage;
    }
    public TextView getTvImage() {
        return tvImage;
    }
}
```



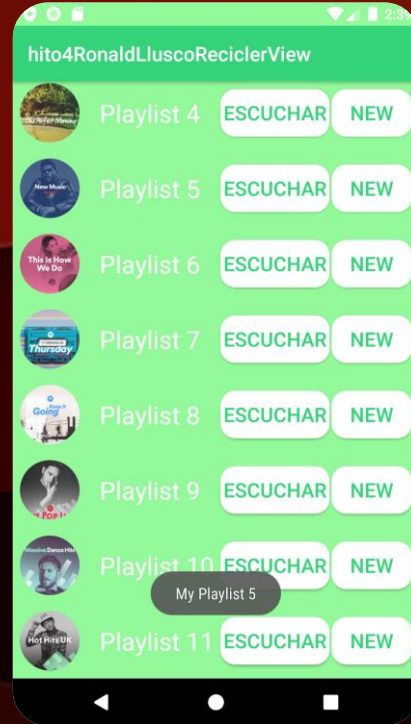
# RESULTADO FINAL PREGUNTA 1

## GENERAMOS EL SIGUENTE RECYCLERVIEW



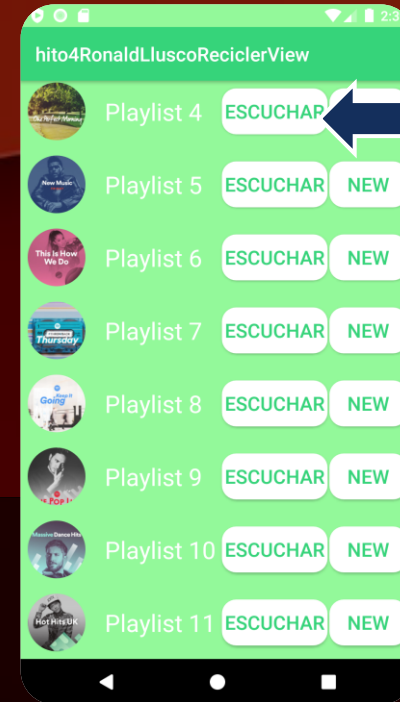
### recyclerview cargado con imágenes de internet

En esta parte generamos la imageview con los Textview y dos respectivos botones con funcionalidad De ir a un nuevo activity

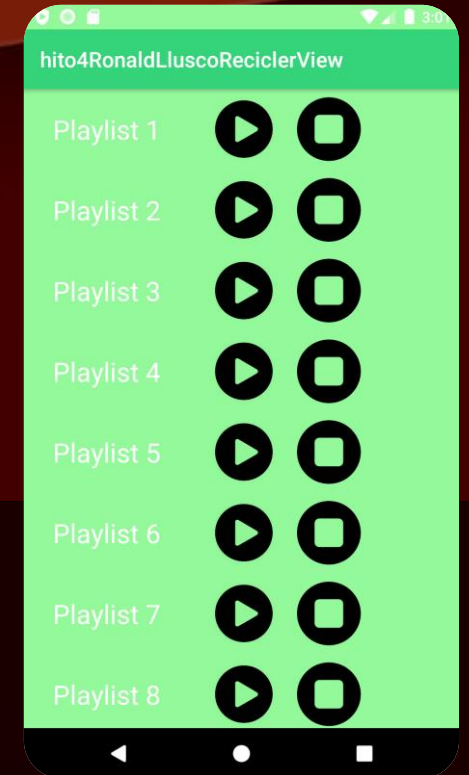


### Primera funcionalidad

En la primera funcionalidad tenemos Cuando se presiona en el TEXT(Ejem Playlist 5) se mostro un mensaje(TOAST), Con una descripcion acerca de ese ALBUM(Ejem. "My Playlist 5").



Resultado obtenido al presionar



Se abre el nuevo activity

# A DESARROLLARSE 2

## PREGUNTA 2

- Mostrar el listado de todas las canciones que forman parte de ese ALBUM.
- Cada canción tiene 3 opciones(PLAY, PAUSE y STOP)
  - Cuando se presiona PLAY mostrar el TOAST("Play music").
  - Cuando se presiona PAUSE mostrar el TOAST("Pause music").
  - Cuando se presiona STOP mostrar el TOAST("Stop music").
- Importante, esta opciones **no son BUTTONS**. Debe de utilizar IMAGEVIEW





# CODIGO DESARROLLADO

## LAYOUT rl\_list\_item1

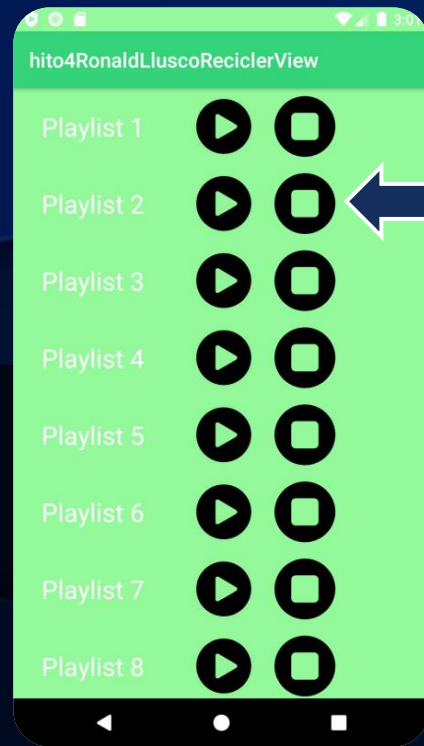
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/rlListItem1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:padding="8dp"
    android:background="@color/colorPrimaryDark">
    <TextView
        android:id="@+id/tvImage1"
        android:layout_width="120dp"
        android:layout_height="wrap_content"
        android:text="@string/canada"
        android:layout_marginStart="20dp"
        android:layout_centerVertical="true"
        android:padding="0dp"
        android:textColor="@color/colornew"
        android:textSize="25sp">
    </TextView>
    <de.hdodenhof.circleimageview.CircleImageView
        android:id="@+id/civItemplay"
        android:layout_width="60dp"
        android:layout_height="60dp"
        android:layout_marginLeft="170dp"
        android:src="@mipmap/ic_launcher" />
    <de.hdodenhof.circleimageview.CircleImageView
        android:id="@+id/civItempause"
        android:layout_width="60dp"
        android:layout_height="60dp"
        android:layout_marginLeft="170dp"
        android:src="@mipmap/ic_launcher"/>
    <de.hdodenhof.circleimageview.CircleImageView
        android:id="@+id/civItemstop"
        android:layout_width="60dp"
        android:layout_height="60dp"
        android:layout_marginLeft="250dp"
        android:src="@mipmap/ic_launcher"/>
</RelativeLayout>
```

## Play List

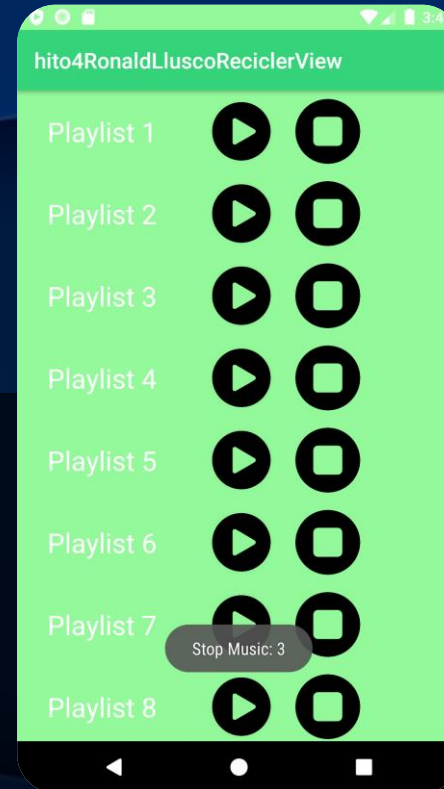
```
package com.example.hito4ronaldlluscoreciclerview;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.os.Bundle;
import android.util.Log;
import com.example.hito4ronaldlluscoreciclerview.Adapter.RVAdapter;
import com.example.hito4ronaldlluscoreciclerview.Adapter.RVAdapter1;
import java.util.ArrayList;
import java.util.Arrays;
public class playlist extends AppCompatActivity {
    public static final String TAG = "playlist";
    public RVAdapter1 adapter;
    public RecyclerView recyclerView;
    private ArrayList<String> names = new ArrayList<>();
    private ArrayList<String> imageurl = new ArrayList<>();
    private ArrayList<String> imagepause = new ArrayList<>();
    private ArrayList<String> imagestop = new ArrayList<>();
    private final String imgurl
    ="59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq,59AoTWq";
    private final String imgpause
    ="2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ,2Nat0RQ";
    private final String imgstop
    ="LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe,LJjd1Qe";
    private final String imgname ="Playlist 1,Playlist 2,Playlist 3,Playlist 4,Playlist 5,Playlist
    6,Playlist 7,Playlist 8,Playlist 9,Playlist 10,Playlist 11,Playlist 12";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_playlist);
        _initImageBitmaps();
        _initRecyclerView();
    }
    private void _initImageBitmaps()
    {
        Log.d(TAG,"initImageBitmaps: preparing bitmaps.");
        imageurl.addAll(Arrays.asList(imgurl.split(",")));
        imagepause.addAll(Arrays.asList(imagepause.split(",")));
        imagestop.addAll(Arrays.asList(imagestop.split(",")));
        names.addAll(Arrays.asList(imgname.split(",")));
    }
    private void _initRecyclerView()
    {
        Log.d(TAG,"initRecyclerView: init recyclerview.");
        recyclerView = findViewById(R.id.rvContainer1);
        adapter = new RVAdapter1(this,names,imageurl,imagepause,imagestop);
        recyclerView.setAdapter(adapter);
        recyclerView.setLayoutManager(new LinearLayoutManager(this));
    }
}
```

# RESULTADO FINAL PREGUNTA 2

GENERAMOS EL SIGUENTE RECYCLERVIEW



Resultado  
obtenido  
al  
presionar



recyclerview cargado con  
imágenes de internet

Resultado Al Presionar

Tenemos nuestro recyclerview con las imágenes de PLAY - PAUSE - STOP. Cargados desde internet

# A DESARROLLARSE 3

## PREGUNTA 3

- Unificar las opciones PLAY y PAUSE en un solo.
- Es decir cuando se hace PLAY debe de cambiar el imageView automáticamente a PAUSE.
- Ocurre lo mismo cuando se presiona PAUSE este cambia automáticamente a PLAY.



# CODIGO DESARROLLADO

## RVAADAPTER

```
package com.example.hito4ronaldlluscoreciclerview.Adapter;
import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;
import com.bumptech.glide.Glide;
import com.example.hito4ronaldlluscoreciclerview.R;
import com.example.hito4ronaldlluscoreciclerview.playlist;
import java.util.ArrayList;
public class RVAAdapter1 extends RecyclerView.Adapter<ViewHolder> {
    private static final String TAG = "RVAAdapter1";
    private Context context;
    private ArrayList<String> imageNames = new ArrayList<>();
    private ArrayList<String> images = new ArrayList<>();
    private ArrayList<String> imagespause = new ArrayList<>();
    private ArrayList<String> imagesstop = new ArrayList<>();
    public RVAAdapter1(Context context, ArrayList<String> imageNames, ArrayList<String> images, ArrayList<String> imagespause, ArrayList<String> imagesstop) {
        this.context = context;
        this.imageNames = imageNames;
        this.images = images;
        this.imagespause = imagespause;
        this.imagesstop = imagesstop;
    }
    @Override
    public ViewHolder1 onCreateViewHolder(ViewGroup viewGroup, int viewType){
        View view = LayoutInflater.from(viewGroup.getContext()).inflate(R.layout.rllist_item1, viewGroup,false);
        ViewHolder1 vholder =new ViewHolder1(view);
        return vholder;
    }
    @Override
    public void onBindViewHolder(final ViewHolder1 holder, final int position1) {
        String url = "https://i.imgur.com/";
        //set image
        Glide.with(context)
            .asBitmap()
            .load(url + images.get(position1)+".png") //images.get(position)
            .into(holder.getCircleImage1());
        Glide.with(context)
            .asBitmap()
            .load(url + imagespause.get(position1)+".png") //images.get(position)
            .into(holder.getCircleImage2());
        Glide.with(context)
            .asBitmap()
            .load(url + imagesstop.get(position1)+".png") //images.get(position)
            .into(holder.getCircleImage3());

        holder.getTvImage().setText(imageNames.get(position1));
        holder.getCircleImage1().setVisibility(View.VISIBLE);
        holder.getCircleImage2().setVisibility(View.INVISIBLE);
        holder.getCircleImage3().setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(context,"Play Music: " + (position1+1),Toast.LENGTH_SHORT).show();

                holder.getCircleImage1().setVisibility(View.INVISIBLE);
                holder.getCircleImage2().setVisibility(View.VISIBLE);
            }
        });
        holder.getCircleImage2().setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(context,"Pause Music: " + (position1+1),Toast.LENGTH_SHORT).show();

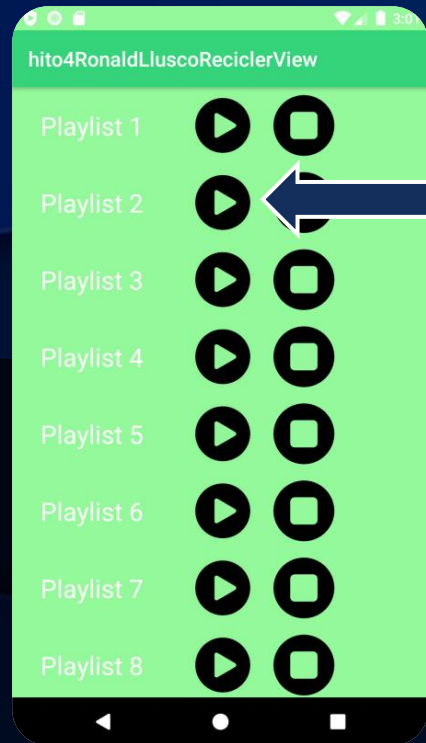
                holder.getCircleImage1().setVisibility(View.VISIBLE);
                holder.getCircleImage2().setVisibility(View.INVISIBLE);
            }
        });
        holder.getCircleImage3().setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(context,"Stop Music: " + (position1+1),Toast.LENGTH_SHORT).show();
            }
        });
    }
    @Override
    public int getItemCount() {
        return imageNames.size();
    }
}
```

## viewHolder1

```
package com.example.hito4ronaldlluscoreciclerview.Adapter;
import android.view.View;
import android.widget.RelativeLayout;
import android.widget.TextView;
import androidx.recyclerview.widget.RecyclerView;
import com.example.hito4ronaldlluscoreciclerview.R;
import de.hdodenhof.circleimageview.CircleImageView;
public class ViewHolder1 extends RecyclerView.ViewHolder {
    private RelativeLayout trContainer1;
    private CircleImageView circleImage1;
    private CircleImageView circleImage2;
    private CircleImageView circleImage3;
    private TextView tvImage;
    public ViewHolder1(View itemView) {
        super(itemView);
        initComponents(itemView);
    }
    public RelativeLayout getTrContainer1() {
        return trContainer1;
    }
    public CircleImageView getCircleImage1() {
        return circleImage1;
    }
    public CircleImageView getCircleImage2() {
        return circleImage2;
    }
    public CircleImageView getCircleImage3() {
        return circleImage3;
    }
    public TextView getTvImage() {
        return tvImage;
    }
    private void initComponents(View itemView){
        trContainer1 = itemView.findViewById(R.id.rllistItem1);
        circleImage1 = itemView.findViewById(R.id.civItemplay);
        circleImage2 = itemView.findViewById(R.id.civItempause);
        circleImage3 = itemView.findViewById(R.id.civItemstop);
        tvImage = itemView.findViewById(R.id.tvImage1);
    }
}
```

# RESULTADO FINAL PREGUNTA 2

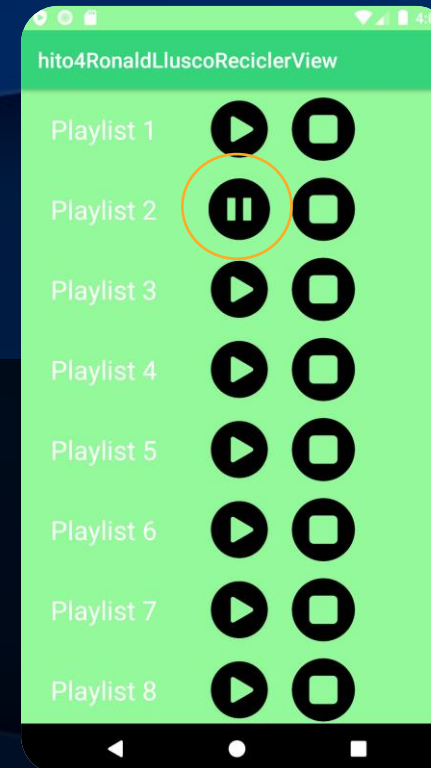
GENERAMOS EL SIGUENTE RECYCLERVIEW



recyclerview cargado con  
imágenes de internet

Tenemos nuestro recyclerview con las  
imágenes de PLAY - PAUSE - STOP.  
Cargados desde internet

Resultado  
obtenido  
al  
presionar



Resultado Al Presionar  
NOS CAMBIA A ESTADO PAUSE



# RESULTADO FINAL DE LA EVALUACION HITO 4 – 1/2020



	Playlist 1	Playlist 1
Playlist 1	music 1	music 1
	music 2	music 2
Playlist 2	music 3	music 3
	music 4	music 4
Playlist 3	music 5	music 5
	music 6	music 6
Playlist 4	music 7	music 7
	music 8	music 8
Playlist 5	music 9	music 9
	music 10	music 10
Playlist 6	music 11	music 11
	music 12	music 12

# Gracias

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