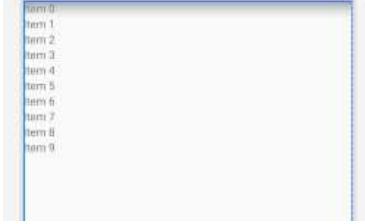


```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity" >

    <!--RecyclerView 라운드아이콘입니다.-->
    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerView"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />
</LinearLayout>

```



```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">

    <!--
    app:cardCornerRadius - 칸너 radius 설정
    app:cardElevation - 음영 elevation 설정,
    app: elevation값이 를수록 음영을 표시하기 위한 공간이 더 필요하다.
    app:cardUseCompatPadding="true"
    - 음영이 표시될 자동으로 확보 합니다.
-->

<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    app:cardBackgroundColor="#fff"
    app:cardCornerRadius="10dp"
    app:cardElevation="5dp"
    app:cardUseCompatPadding="true">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <ImageView
            android:layout_width="80dp"
            android:layout_height="80dp"
            android:padding="10dp"
            android:src="@mipmap/ic_launcher_round" />
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="vertical">
            <TextView
                android:id="@+id/name"
                android:layout_width="match_parent"
                android:layout_height="0dp"
                android:layout_weight="1"
                android:textSize="25sp">
            </TextView>
            <TextView
                android:id="@+id/phone"
                android:layout_width="match_parent"
                android:layout_height="0dp"
                android:layout_weight="1"
                android:textSize="25sp"
                android:textColor="#00f">
            </TextView>
        </LinearLayout>
    </LinearLayout>
</androidx.cardview.widget.CardView>
</LinearLayout>

```



```

/* 1. vo, 2. 어댑터 3. 리스너 4. MainActivity */
public class MainActivity extends AppCompatActivity {
    RecyclerView recyclerView;
    PersonAdapter adapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        recyclerView = findViewById(R.id.recyclerView);

        // recyclerView 화면을 만들어줘야 한다.
        // 한 줄에 하나씩 보이기
        LinearLayoutManager manager =
        new LinearLayoutManager(this,
        LinearLayoutManager.VERTICAL, false);

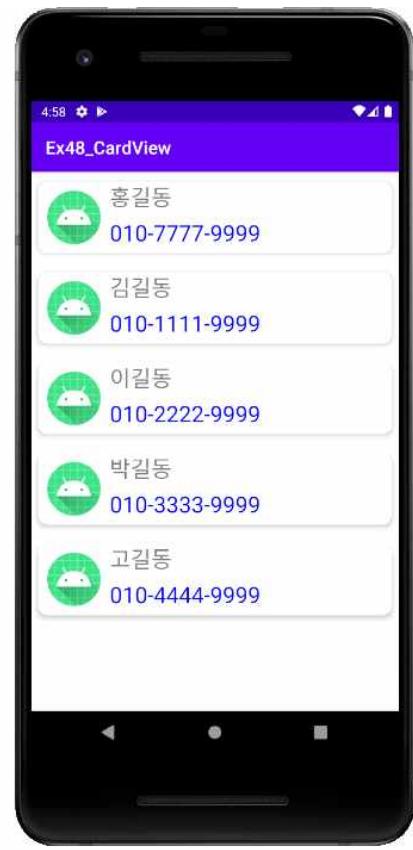
        // 한 줄에 여러개
        // GridLayoutManager manager =
        // new GridLayoutManager(this, 2);

        recyclerView.setLayoutManager(manager);
        adapter = new PersonAdapter();
        adapter.addItem(new VO("홍길동", "010-7777-9999"));
        adapter.addItem(new VO("김길동", "010-1111-9999"));
        adapter.addItem(new VO("이길동", "010-2222-9999"));
        adapter.addItem(new VO("박길동", "010-3333-9999"));
        adapter.addItem(new VO("고길동", "010-4444-9999"));

        recyclerView.setAdapter(adapter);

        // 이벤트 처리
        adapter.setOnItemClickListener(new OnPersonItemClickListener() {
            @Override
            public void onItemClick(PersonAdapter.ViewHolder holder, View view, int position) {
                // 번호를 추출한다.
                VO vo = adapter.getItem(position);
                // 전화 걸기 : manifests에서 permission 해줘야 된다.
                // 앱 정보에서 허가를 또 받아야 한다.
                Intent intent = new Intent(Intent.ACTION_CALL);
                intent.setData(Uri.parse("tel:" + vo.getPhone()));
                if(intent.resolveActivity(getApplicationContext()) != null){
                    if(checkSelfPermission(Manifest.permission.CALL_PHONE)
                    != PackageManager.PERMISSION_GRANTED){
                        return;
                    }
                    startActivity(intent);
                }
            }
        });
    }
}

```



```

public class VO {
    private String name;
    private String phone;

    public VO() { }

    public VO(String name, String phone) {
        this.name = name;
        this.phone = phone;
    }

    public String getName() { return name; }
    public void setName(String name) { this.name = name; }
    public String getPhone() { return phone; }
    public void setPhone(String phone) { this.phone = phone; }
}

```

```

public interface OnPersonItemClickListener {
    public void onItemClick(PersonAdapter.ViewHolder holder, View view, int position);
}

```

```
/*보통 어댑터는 어댑터 상속을 받지만 RecyclerView.Adapter 상속을 받아야 한다.*/
public class PersonAdapter extends RecyclerView.Adapter<PersonAdapter.ViewHolder>
implements OnPersonItemClickListener{

//어댑터에 들어갈 정보
ArrayList<VO> items = new ArrayList<>();

// 리스너 만들기-1
OnPersonItemClickListener listener;

// 리스너 만들기-2
public void setOnItemClickListener(OnPersonItemClickListener listener){
this.listener = listener;
}

// 리스너 만들기-3 ( implements OnPersonItemClickListener Override)
@Override
public void onItemClick(ViewHolder holder, View view, int position) {
if(listener != null){
listener.onItemClick(holder, view,position);
}
}

// 인플레이트 한다.(ViewHolder)
@NonNull
@Override
public PersonAdapter.ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
LayoutInflater inflater = LayoutInflater.from(parent.getContext());
View itemView = inflater.inflate(R.layout.person_item, parent, false);

// 아래 만든 클래스를 이용한것이다.
return new ViewHolder(itemView, this);
}

/*VO가 생성해서 해당 위치에 holder의 위치에 넣어준다.*/
@Override
public void onBindViewHolder(@NonNull PersonAdapter.ViewHolder holder, int position) {
VO vo = items.get(position);
// ViewHolder 클래스안에 해당 메소드 만들기
holder.setItem(vo);
}

@Override
public int getItemCount() {
return items.size();
}

// 정보를 받아서 items에 넣기
public void addItem(VO vo){ items.add(vo);}

// 위치값을 받아서 정보를 꺼내기
public VO getItem(int position){return items.get(position);}

// 뷰를 받아서 처리하는 클래스
static class ViewHolder extends RecyclerView.ViewHolder{
TextView name, phone;
public ViewHolder(@NonNull View itemView, final OnPersonItemClickListener listener) {
super(itemView);
name = itemView.findViewById(R.id.name);
phone=itemView.findViewById(R.id.phone);

// 리스너 이벤트 처리
itemView.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
int position = getAdapterPosition();
if(listener != null){
listener.onItemClick(ViewHolder.this, view, position);
}
});
}

public void setItem(VO vo){
name.setText(vo.getName());
phone.setText(vo.getPhone());
}
}
}
```