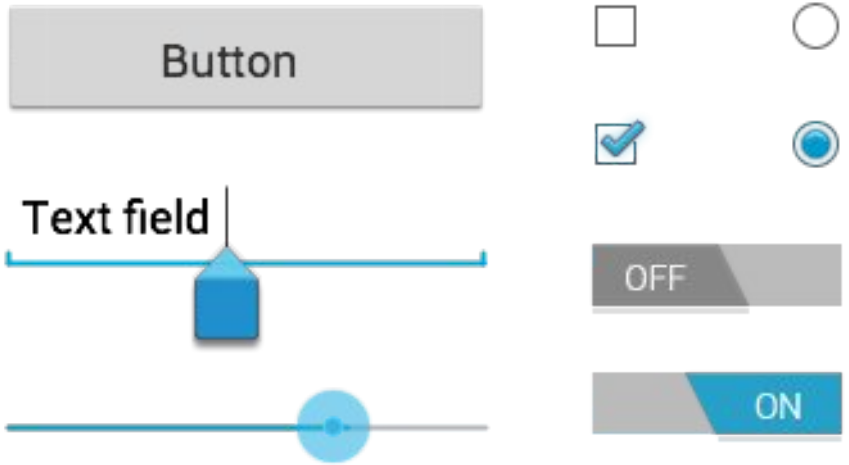
Kontrolki

Input Controls

Główne typy kontrolek:

- Button
- Text field
- Checkbox
- Radio button
- Toggle button
- Spinner
- Pickers



Button

- trzy typy ze względu na zawartość (tekst, ikona, tekst + ikona)
- onClick (public, void, parametr View)
- setOnClickListener (View.OnClickListener)

Tekst

```
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="@string/button_text"
... />
```

Ikona

```
<ImageButton
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:src="@drawable/button_icon"
... />
```

Tekst + ikona

```
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="@string/button_text"
android:drawableLeft="@drawable/button_icon"
... />
```

```
/** Called when the user touches the
button */
public void sendMessage(View view)
{
    // Do something in response to
button click
}
```

```
Button button = (Button) findViewById(R.id.button_send);
button.setOnClickListener(new View.OnClickListener() {
    public void onClick(View v) {
        // Do something in response to button click
    }
});
```

Text field

- EditText
-
- Text field z podpowiedziami (AutoCompleteTextView)

Przykład EditText

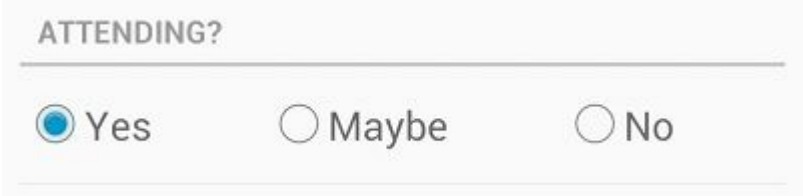
```
<EditText
    android:id="@+id/plain_text_input"
    android:layout_height="wrap_content"
    android:layout_width="match_parent"
    android:inputType="text"/>
```

CheckBox

- wartości true/false
- metoda onClick
- przykład

```
<CheckBox android:id="@+id/checkbox_meat"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/meat"
    android:onClick="onCheckboxClicked"/>
```

Radio button



- wybór spośród kilku opcji
- tylko jedna opcja zaznaczona jednocześnie
- metoda onClick
- RadioButton dla każdej z opcji, zgrupowane w RadioGroup

Przykład

```
<RadioGroup
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    <RadioButton android:id="@+id/radio_pirates"
...
    <RadioButton android:id="@+id/radio_ninjas"
...
</RadioGroup>
```

Spinner (dropdown menu)

- przekazanie możliwych opcji za pomocą SpinnerAdaptera (ArrayAdapter lub CursorAdapter)
- onItemSelectedListener

Definicja tablicy

```
<resources>
    <string-array name="planets_array">
        <item>Mercury</item>
        <item>Venus</item>
        <item>Neptune</item>
    </string-array>
</resources>
```

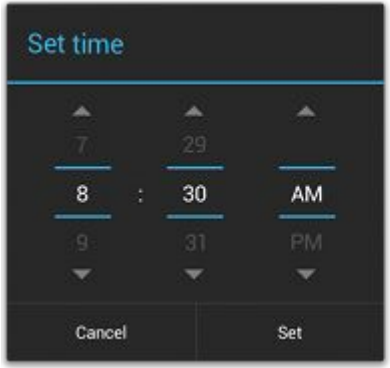
Przypisanie adaptera

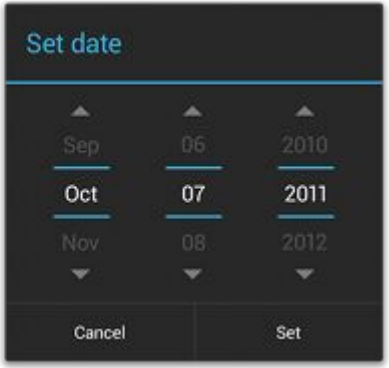
```
Spinner spinner = (Spinner) findViewById(R.id.spinner);

ArrayAdapter<CharSequence> adapter =
ArrayAdapter.createFromResource(this,

        R.array.planets_array,
android.R.layout.simple_spinner_item);

adapter.setDropDownViewResource(android.R.layout.simple_spi
nner_dropdown_item);

spinner.setAdapter(adapter);
```

Toggle Button

- dziedziczące po CompoundButton (Switch, ToggleButton)
- podobny do checkBox’a
- toggle()
- setOnCheckedChangeListener

Picker





- DatePicker, TimePicker
- rozszerzanie klasy DialogFragment (onCreateDialog)
- implementacja DatePickerDialog/TimePickerDialog
- wywołanie metody show()

Przykład

```
public static class TimePickerFragment extends DialogFragment implements TimePickerDialog.OnTimeSetListener {
    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        final Calendar c = Calendar.getInstance();
        int hour = c.get(Calendar.HOUR_OF_DAY);
        int minute = c.get(Calendar.MINUTE);
        return new TimePickerDialog(getActivity(), this, hour, minute,  DateFormat.is24HourFormat(getActivity()));
    }
    public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
    }
}
```

Pozostałe kontrolki

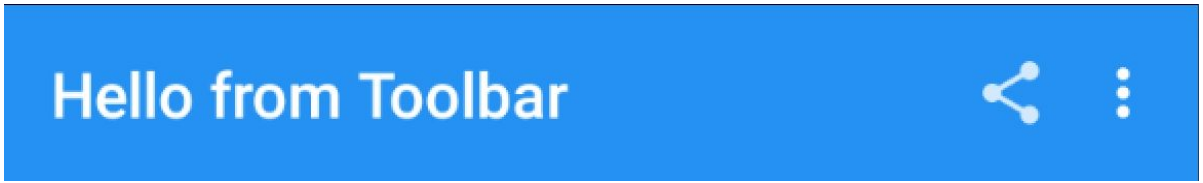
Pozostałe kontrolki można znaleźć przeglądając pakiet android.widget.

Jeżeli żadna z dostępnych kontrolek nie spełnia naszych wymagań możemy stworzyć własny Custom Component.

Toolbar

Toolbar

1. What is a Toolbar ?



2. Toolbar in Android.

3. Toolbar vs. ActionBar

Możliwości Toolbara

1. Navigation
2. Logo
3. Title and subtitle
4. Custom views
5. Action(s) menu

Toolbar from scratch - step 1

```
dependencies {
   ...
   compile 'com.android.support:appcompat-v7:25.2.0'
   ...
}
```

Toolbar from scratch - step 2

```
public class MyActivity extends AppCompatActivity
{
  // ...
}
```

Toolbar from scratch - step 3

```
<application
   ...
 android:theme="@style/Theme.AppCompat.Light.NoActionBar"
   ...
/>
```

Toolbar from scratch - step 4

```
<android.support.v7.widget.Toolbar
    android:id="@+id/my_toolbar"
    ...
/>
```

Toolbar from scratch - step 5

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_my);
    Toolbar toolbar = (Toolbar)findViewById(R.id.my_toolbar);
    setSupportActionBar(toolbar);
}
```

Coding Time