

Mobile Application Development

Higher Diploma in Science in Computer Science

Produced
by

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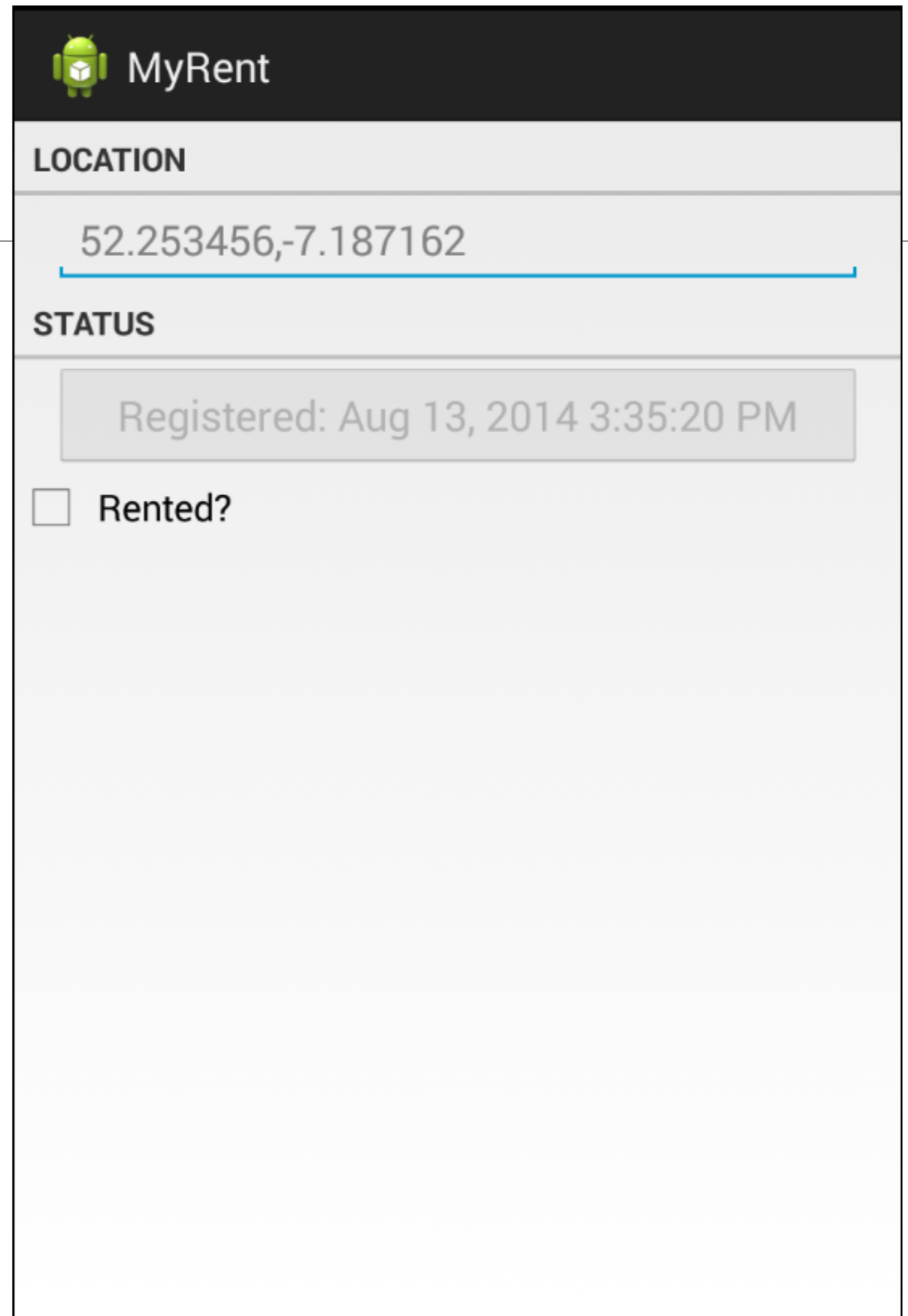
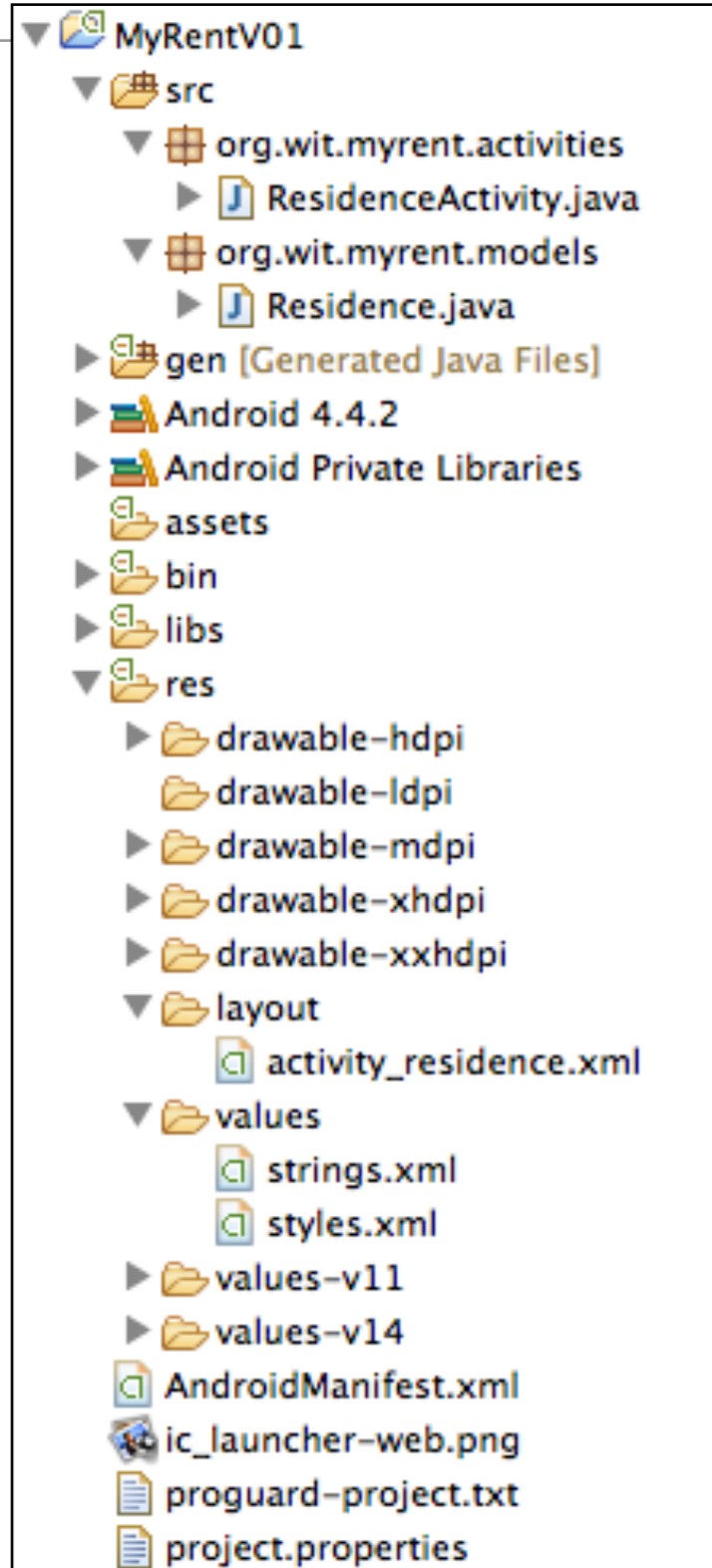


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MyRent V0

MyRent V01



Layout Structure

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical" >
```

```
<!-- LOCATION -->
<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/location"
    style="?android:listSeparatorTextViewStyle"/>
```

```
<EditText
    android:id="@+id/geolocation"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="16dp"
    android:layout_marginRight="16dp"
    android:hint="@string/geolocation_hint" />
```

```
<!-- STATUS -->
<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/status"
    style="?android:listSeparatorTextViewStyle" />
```

```
<Button android:id="@+id/registration_date"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="16dp"
    android:layout_marginRight="16dp"/>
```

```
<CheckBox
    android:id="@+id/residence_isrented"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/rented_checkbox_text" />
```

The screenshot shows the MyRent app interface. At the top, there is a header with the Android logo and the text "MyRent". Below the header, there are three main sections: "LOCATION", "STATUS", and "Rented?". The "LOCATION" section contains a text input field with the value "52.253456,-7.187162". The "STATUS" section contains a text input field with the value "Registered: Aug 13, 2014 3:35:20 PM". The "Rented?" section contains a checkbox that is currently unchecked.

Residence

```
public class Residence
{
    public UUID id;

    public String geolocation;
    public Date date;
    public boolean rented;

    public Residence()
    {
        id = UUID.randomUUID();
        this.date = new Date();
    }

    public String getDateString()
    {
        return "Registered: " + DateFormat.getDateTimeInstance().format(date);
    }
}
```

ResidenceActivity - Initialisation

```
public class ResidenceActivity extends Activity implements TextWatcher, OnCheckedChangeListener
{
    private EditText geolocation;
    private CheckBox rented;
    private Button   dateButton;

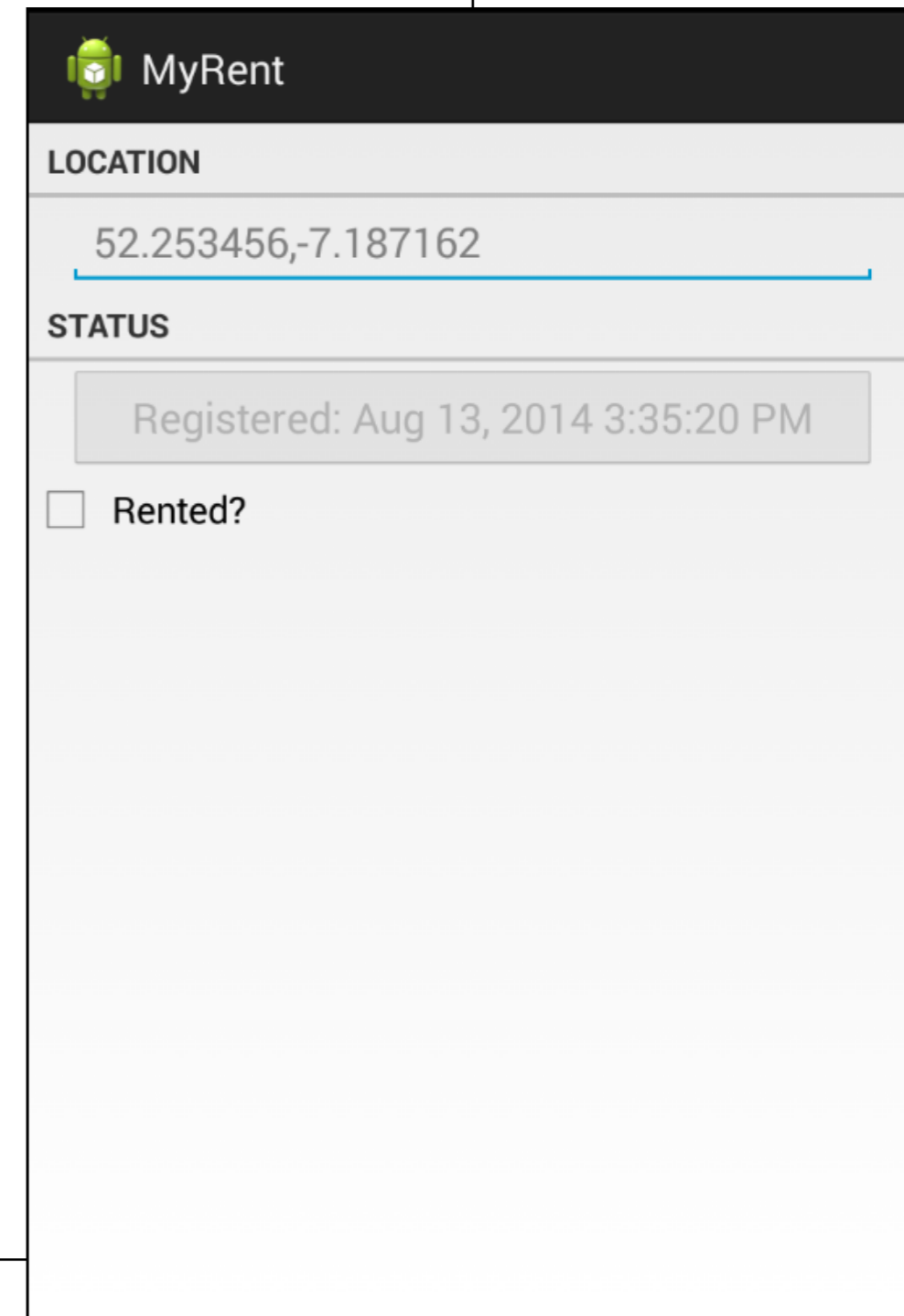
    private Residence residence;

    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_residence);

        geolocation = (EditText) findViewById(R.id.geolocation);
        dateButton  = (Button)   findViewById(R.id.registration_date);
        rented      = (CheckBox) findViewById(R.id.isrented);

        residence = new Residence();

        geolocation.addTextChangedListener(this);
        geolocation.setText(residence.geolocation);
        dateButton.setEnabled(false);
        rented.setChecked(residence.rented);
        rented.setOnCheckedChangeListener(this);
    }
    ...
}
```



The screenshot shows the 'MyRent' app interface. At the top, there is a header with the Android logo and the text 'MyRent'. Below the header, the form is divided into sections. The first section is titled 'LOCATION' and contains a text input field with the value '52.253456,-7.187162'. The second section is titled 'STATUS' and contains a button with the text 'Registered: Aug 13, 2014 3:35:20 PM'. Below the button, there is a checkbox labeled 'Rented?' which is currently unchecked.

ResidenceActivity - Event Handlers

```
public class ResidenceActivity extends Activity implements TextWatcher, OnCheckedChangeListener
{
    private EditText geolocation;
    private CheckBox rented;
    //...
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        //..
        geolocation.addTextChangedListener(this);
        rented      .setOnCheckedChangeListener(this);
    }

    @Override
    public void onCheckedChanged(CompoundButton arg0, boolean isChecked)
    {
        Log.i(this.getClass().getSimpleName(), "rented Checked");
        residence.rented = isChecked;
    }

    @Override
    public void afterTextChanged(Editable c)
    {
        Log.i(this.getClass().getSimpleName(), "geolocation " + c.toString());
        residence.geolocation = c.toString();
    }

    @Override
    public void beforeTextChanged(CharSequence arg0, int arg1, int arg2, int arg3)
    {
    }

    @Override
    public void onTextChanged(CharSequence arg0, int arg1, int arg2, int arg3)
    {
    }
}
```

ResidenceActivity - Event Handlers

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public class ResidenceActivity extends Activity implements TextWatcher, OnCheckedChangeListener
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    private EditText geolocation;
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    //...
    @Override
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        geolocation.addTextChangedListener(this);
        rented.setOnCheckedChangeListener(this);
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}
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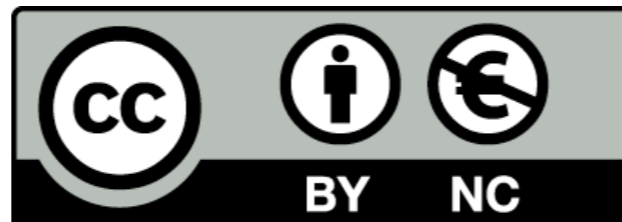
```
@Override
public void onCheckedChanged(CompoundButton arg0, boolean isChecked)
{
    Log.i(this.getClass().getSimpleName(), "rented Checked");
    residence.rented = isChecked;
}
```

```
@Override
public void afterTextChanged(Editable c)
{
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    residence.geolocation = c.toString();
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@Override
public void beforeTextChanged(CharSequence arg0, int arg1, int arg2, int arg3)
{
}
```

```
@Override
public void onTextChanged(CharSequence arg0, int arg1, int arg2, int arg3)
{
}
```

```
}
```



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