

CUL8r (see you later) github.com/Fpculcasi/CUL8r **An Android application for real social networking**

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Importance of social relationships

- Human beings are innately social and are shaped by their experiences with others. There are multiple perspectives to understand this inherent motivation to interact with others.
 - **Need to belong**
 - **Social exchange**
 - **Relational self**
- Types
 - *Intimate relationships*
 - Lovers, Significant other, Spouse
 - *Family relationships*
 - *Egalitarian and Platonic friendship*
 - *Enemy or frenemy*
 - *Neighbor*
 - *Business relationships:*
 - Partnership, Employer and employee, Contractor, Customer, Landlord and tenant
 - *Official*

Social Media are able to distinguish only among the first 3 categories (partially the remaining ones)



Application structure

- The application consist of two components:

Client:

An Android application used by users to search nearest events (conventions, exhibitions, concerts, fairs, excursions, ceremonies, etc...)

The nearness is computed through a localization system (GPS).

Each user registers to one or more event they are participating

Server:

Takes trace of all the events and the respective participants

Analyze relationships and depicts personal relations of application users



Client side: Android app

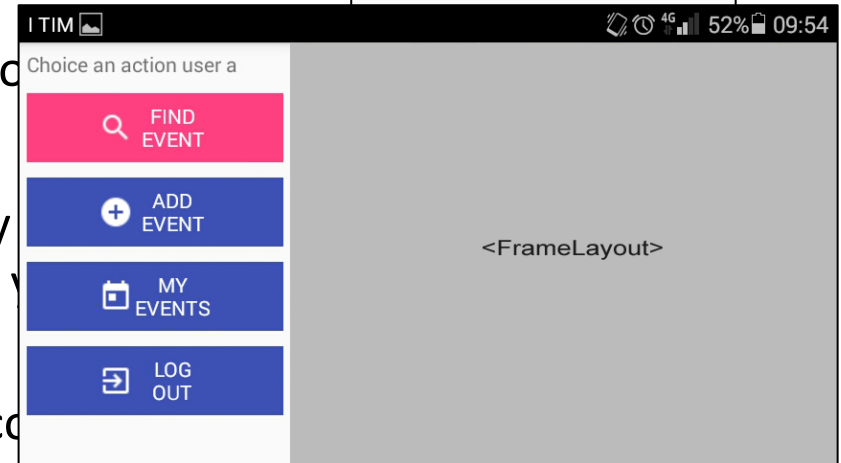
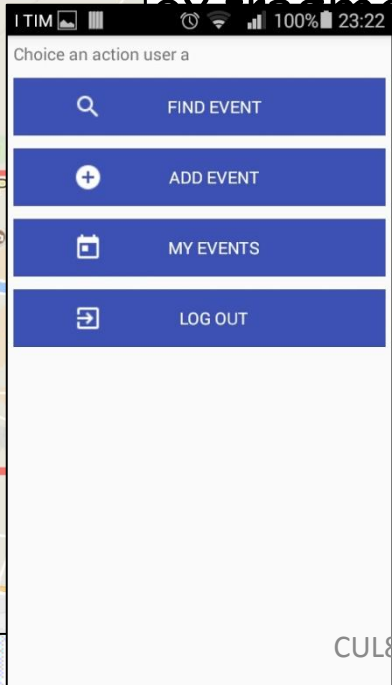
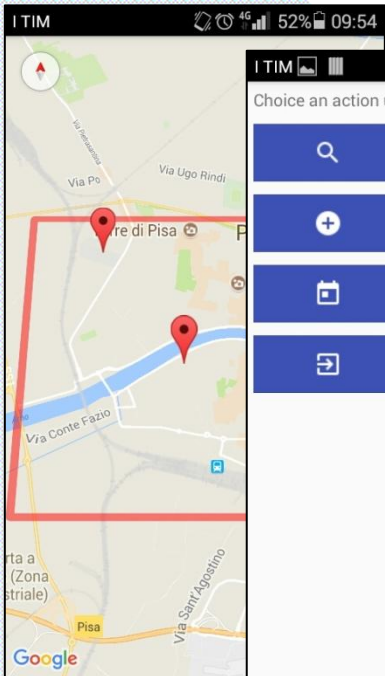
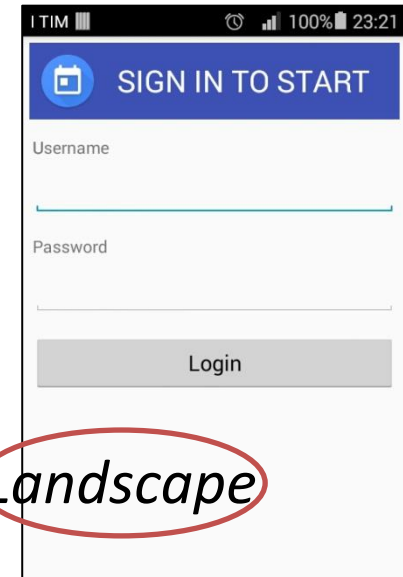
- Activities:

- *LoginActivity*

- Checks credentials through AsyncTask

- *MainActivity*

- Single fragment if *Portrait*, two when *Landscape*





Fragments' layout

Search nearest events

ITIM 100% 00:17

esame MaPS
2017-06-24 22:52:53; End: 2017-11-23...

Participate: 1

Add new event

ITIM 100% 23:58

CREATE A NEW EVENT

Description MaPS lesson

Position (43.721361;10.3899)

Start date 2017-05-25 13:30

End Date 2017-05-25 15:30

Add

Check event participation

ITIM 100% 23:59

- esame MaPS
Start:2017-06-24 22:52:53 - End:2017-11-23 09:00:00
- Gruppo di studio
Start:2017-06-25 09:00:00 - End:2017-11-25 12:00:00
- studio intenso pre-esame
Start:2017-07-13 08:00:00 - End:2017-07-13 23:00:00
- adfh
Start:2017-08-20 09:00:00 - End:2017-08-20 12:00:00
- prova
Start:2017-08-20 09:00:00 - End:2017-08-20 12:00:00
- Lu7z complx
Start:2017-09-19 00:00:00 - End:2017-09-19 23:59:00



Custom ListView

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="?android:attr/listPreferredItemHeight"
    android:padding="6dip" >

    <ImageView
        android:id="@+id/icon"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_alignParentBottom="true"
        android:layout_alignParentTop="true"
        android:layout_marginRight="6dip"
        android:contentDescription="TODO"
        android:src="@drawable/ic_search_white" />

    <TextView
        android:id="@+id/secondLine"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentRight="true"
        android:layout_toRightOf="@id/icon"
        android:ellipsize="marquee"
        android:maxLines="1"
        android:text="Description"
        android:textSize="12sp" />

    <TextView
        android:id="@+id/firstLine"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_above="@id/secondLine"
        android:layout_alignParentRight="true"
        android:layout_alignParentTop="true"
        android:layout_alignWithParentIfMissing="true"
        android:layout_toRightOf="@id/icon"
        android:gravity="center_vertical"
        android:text="Example application"
        android:textSize="16sp" />

</RelativeLayout>
```

rowlayout.xml

```
class MyArrayAdapter extends ArrayAdapter<Event> {
    private final Context context;
    private final Event[] values;
    private String now;

    MyArrayAdapter(Context context, ArrayList<Event> values) {
        super(context, R.layout.rowlayout, values);
        this.context = context;
        Log.d("****", "values: "+values);
        this.values = values.toArray(new Event[values.size()]);
        Log.d("****", "values[0]"+this.values[0]);
        final Date nowDate = Calendar.getInstance().getTime();
        SimpleDateFormat format1 = new SimpleDateFormat("yyyy-MM-dd HH:mm");
        now = format1.format(nowDate);
    }

    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
        LayoutInflater inflater = (LayoutInflater) context
            .getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        View rowView = inflater.inflate(R.layout.rowlayout, parent, false);
        TextView description = (TextView) rowView.findViewById(R.id.firstLine);
        TextView date = (TextView) rowView.findViewById(R.id.secondLine);
        ImageView image = (ImageView) rowView.findViewById(R.id.icon);
        description.setText(values[position].getDescription());
        date.setText("Start:"+values[position].getStart()+" -
            End:"+values[position].getEnd());
        //expired events in light gray
        if(values[position].getEnd().compareTo(now)<0) {
            description.setTextColor(Color.LTGRAY);
            date.setTextColor(Color.LTGRAY);
        }
        // Change the icon for verified events
        if (values[position].isVerified()) {
            image.setImageResource(R.drawable.ic_today_black);
        } else {
            image.setImageResource(R.drawable.ic_today_white);
        }

        return rowView;
    }
}
```



Server

- Store in a database:
 - Users name & password
 - Events
 - Description, start/end date and time, location
 - Participations (including the confirmation)
- Perform clustering computation
 - Cluster partition
 - Density-based method
 - Cluster location
 - Through GPS position of each user belonging to a cluster
 - Inter-cluster interaction
 - Detection of the social interaction among people belonging to different clusters
 - Intra-cluster interaction
 - Detection of the social interaction described in the first slide