

# Desenvolvimento de Apps para Mobile

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Aula 09 - GPS



# GPS

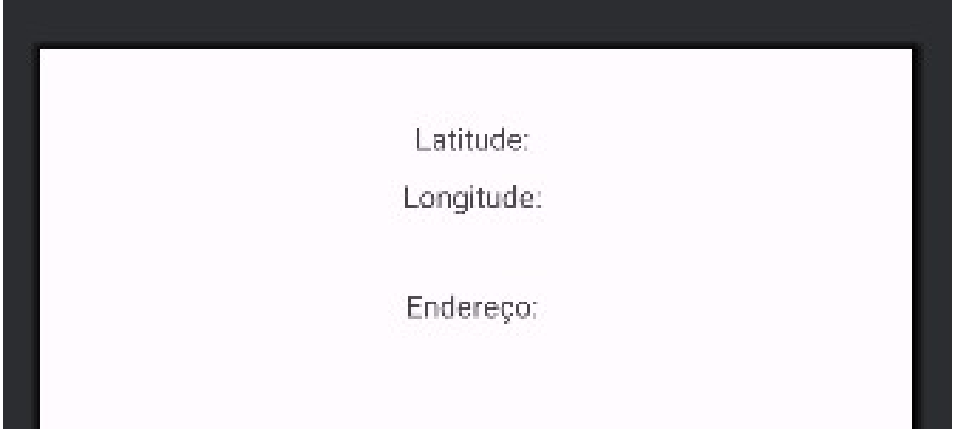
- Para fazer uso das leituras da geolocalização de um usuário Android, precisamos de algumas permissões, começamos pelo AndroidManifest:

```
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />  
<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION" />
```

# Activity

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- Vamos criar essa activity:
- São 3 TextViews



Latitude:

Longitude:

Endereço:

```
private TextView latitudeTextView, longitudeTextView, enderecoTextView;
```

## Activity – Método *getAddress*

```
private void getAddress(double latitude, double longitude) {
    Geocoder geocoder = new Geocoder(this, Locale.getDefault());
    try {
        List<Address> addresses = geocoder.getLocation(latitude, longitude, 1);
        if (addresses != null && !addresses.isEmpty()) {
            Address address = addresses.get(0);
            String addressDetails = address.getAddressLine(0);
            enderecoTextView.setText("Endereço: " + addressDetails);
        } else {
            enderecoTextView.setText("Endereço não encontrado");
        }
    } catch (IOException e) {
        e.printStackTrace();
        enderecoTextView.setText("Erro ao obter endereço");
    }
}
```

# Activity - OnCreate – Parte 1

```
latitudeTextView = findViewById(R.id.latitudeTextView);
longitudeTextView = findViewById(R.id.longitudeTextView);
enderecoTextView = findViewById(R.id.enderecoTextView);

try
{
    if (ContextCompat.checkSelfPermission(this, Manifest.permission.ACCESS_FINE_LOCATION)
        != PackageManager.PERMISSION_GRANTED) {

        ActivityCompat.requestPermissions(this,
            new String[]{Manifest.permission.ACCESS_FINE_LOCATION},
            200);
    }
}
```

## Activity - OnCreate – Parte 2

```
FusedLocationProviderClient fusedLocationClient = LocationServices.getFusedLocationProviderClient(this);  
fusedLocationClient.getLastLocation().addOnSuccessListener(new OnSuccessListener<Location>() {  
    @Override  
    public void onSuccess(Location location) {  
        if (location != null) {  
            double latitude = location.getLatitude();  
            double longitude = location.getLongitude();  
        }  
    }  
})
```

# Activity - OnCreate – Parte 3

```
latitudeTextView.setText("Latitude: " + latitude);
longitudeTextView.setText("Longitude: " + longitude);

    getAddress(latitude, longitude); // Obter endereço com Geocoder
} else {
    Toast.makeText(GPS_Activity.this, "Não foi possível obter a localização",
Toast.LENGTH_SHORT).show();
}
});
}
catch (Exception e)
{
    Toast.makeText(GPS_Activity.this, e.getMessage(), Toast.LENGTH_LONG).show();
}
```