**CONFIGURAÇÃO INICIAL**

{

implementation 'com.google.android.gms:play-services-maps:18.0.2' implementation 'com.google.firebase:firebase-messaging:23.0.0'

}

**TELA INICIAL**

import android.content.Intent import android.os.Bundle import androidx.appcompat.app.AppCompatActivity import kotlinx.android.synthetic.main.activity\_main.\* class MainActivity : AppCompatActivity() { override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_main) btnPrevention.setOnClickListener { startActivity(Intent(this, PreventionActivity::class.java)) } btnIncidenceMap.setOnClickListener { startActivity(Intent(this, IncidenceMapActivity::class.java)) } btnAlerts.setOnClickListener { startActivity(Intent(this, AlertsActivity::class.java)) } btnReportCase.setOnClickListener { startActivity(Intent(this, ReportCaseActivity::class.java)) } } }

**INFORMAÇÕES SOBRE PREVENÇÃO E SINTOMAS**

import android.os.Bundle import androidx.appcompat.app.AppCompatActivity import androidx.recyclerview.widget.LinearLayoutManager import kotlinx.android.synthetic.main.activity\_prevention.\* class PreventionActivity : AppCompatActivity() { override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_prevention) val preventionTips = listOf( "Evitar acúmulo de água parada", "Usar repelentes", "Cobrir áreas expostas", "Manter a limpeza do ambiente" ) recyclerViewPrevention.layoutManager = LinearLayoutManager(this) recyclerViewPrevention.adapter = PreventionAdapter(preventionTips) } } class PreventionAdapter(private val items: List<String>) : RecyclerView.Adapter<PreventionAdapter.ViewHolder>() { inner class ViewHolder(view: View) : RecyclerView.ViewHolder(view) { val textView: TextView = view.findViewById(R.id.textViewTip) } override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): ViewHolder { val view = LayoutInflater.from(parent.context) .inflate(R.layout.item\_prevention\_tip, parent, false) return ViewHolder(view) } override fun onBindViewHolder(holder: ViewHolder, position: Int) { holder.textView.text = items[position] } override fun getItemCount() = items.size }

**MAPA COM AREAS DE INCIDENCIAS**

import android.os.Bundle import androidx.appcompat.app.AppCompatActivity import com.google.android.gms.maps.CameraUpdateFactory import com.google.android.gms.maps.GoogleMap import com.google.android.gms.maps.OnMapReadyCallback import com.google.android.gms.maps.SupportMapFragment import com.google.android.gms.maps.model.LatLng import com.google.android.gms.maps.model.MarkerOptions class IncidenceMapActivity : AppCompatActivity(), OnMapReadyCallback { private lateinit var mMap: GoogleMap override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_incidence\_map) val mapFragment = supportFragmentManager .findFragmentById(R.id.map) as SupportMapFragment mapFragment.getMapAsync(this) } override fun onMapReady(googleMap: GoogleMap) { mMap = googleMap val location1 = LatLng(-23.5505, -46.6333) // São Paulo mMap.addMarker(MarkerOptions().position(location1).title("Zona de risco")) mMap.moveCamera(CameraUpdateFactory.newLatLngZoom(location1, 10f)) val location2 = LatLng(-22.9068, -43.1729) // Rio de Janeiro mMap.addMarker(MarkerOptions().position(location2).title("Zona de risco")) } }

**ALERTAS E NOTIFICAÇÕES**

import android.app.NotificationChannel import android.app.NotificationManager import android.os.Build import androidx.core.app.NotificationCompat import androidx.core.app.NotificationManagerCompat import android.os.Bundle import androidx.appcompat.app.AppCompatActivity class AlertsActivity : AppCompatActivity() { private val CHANNEL\_ID = "dengue\_alerts\_channel" override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_alerts) createNotificationChannel() showNotification("Alerta de Surtos", "Novo surto próximo à sua localização!") } private fun createNotificationChannel() { if (Build.VERSION.SDK\_INT >= Build.VERSION\_CODES.O) { val name = "Dengue Alerts" val descriptionText = "Canal para alertas de dengue" val importance = NotificationManager.IMPORTANCE\_DEFAULT val channel = NotificationChannel(CHANNEL\_ID, name, importance).apply { description = descriptionText } val notificationManager: NotificationManager = getSystemService(NOTIFICATION\_SERVICE) as NotificationManager notificationManager.createNotificationChannel(channel) } } private fun showNotification(title: String, content: String) { val builder = NotificationCompat.Builder(this, CHANNEL\_ID) .setSmallIcon(R.drawable.ic\_alert) .setContentTitle(title) .setContentText(content) .setPriority(NotificationCompat.PRIORITY\_DEFAULT) with(NotificationManagerCompat.from(this)) { notify(1001, builder.build()) } } }

**RELATOS DE CASOS**

import android.os.Bundle import androidx.appcompat.app.AppCompatActivity import kotlinx.android.synthetic.main.activity\_report\_case.\* class ReportCaseActivity : AppCompatActivity() { override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_report\_case) btnSubmitReport.setOnClickListener { val location = etLocation.text.toString() val symptoms = etSymptoms.text.toString() if (location.isNotBlank() && symptoms.isNotBlank()) { showToast("Relato registrado com sucesso!") } else { showToast("Por favor, preencha todos os campos.") } } } private fun showToast(message: String) { Toast.makeText(this, message, Toast.LENGTH\_SHORT).show() } }