

DAFTAR PUSTAKA

- Junirianto, E., & Kurniadin, N. (2020). Pengembangan Aplikasi Point Of Sale Berbasis Android Menggunakan Metode Rapid Application Development. *Journal of Information Technology and Computer Science*, 5(3), 2111-218.
- Bachtiar, L. (2020). Pengembangan Teknologi Mobile Untuk Sistem Kasir Rumah Makan Di Kota Sampit Menggunakan Firebase Realtime Database. *Jurnal Teknologi Informasi Universitas Lambung Mangkurat (JTIULM)*, 5(2), 57-66.
- Salsabil, H., & Kahfi, A. H. (2025). RANCANG BANGUN APLIKASI POINT OF SALES PADA RUMAH MAKAN HARAPAN BUNDO BERBASIS ANDROID. *JRIS: Jurnal Rekayasa Informasi Swadharma*, 5(1), 35-43.
- Nistrina, K., & Rahmania, A. (2021). Sistem Informasi Point of Sale Berbasis Website Studi Kasus: Pt Barokah Kreasi Solusindo (Artpedia). *J-SIKA| Jurnal Sistem Informasi Karya Anak Bangsa*, 3(02), 1-12.
- Arman, M., & Maberur, R. (2022). Perancangan Aplikasi Point Of Sales Pada Toko Cahaya Purnama Soppeng. *Jurnal Ilmiah Sistem Informasi dan Teknik Informatika (JISTI)*, 5(1), 43-50.
- Permana, S. D. H. (2015). Analisa dan perancangan aplikasi point of sale (pos) untuk mendukung manajemen hubungan pelanggan. *Jurnal Teknologi Informasi dan Ilmu Komputer*, 2(1), 20-28.
- Pratama, R. Y., & Somya, R. (2021). Perancangan Aplikasi Point Of Sales (POS) Berbasis Android (Studi Kasus: Warkop Vape Salatiga). *JATISI (Jurnal Teknik Informatika Dan Sistem Informasi)*, 8(4), 1923-1938.
- Suprianto, S., Fadlan, M., & Prayogi, D. (2021). Perancangan Aplikasi Point of Sale Berbasis Web Pada Toko Project Salfa Tarakan. *Sebatik*, 25(2), 624-631.
- Wansaga, Audy A., Hans Fredrik Wowor, and Alwin Melkie Sambul. "Rancang Bangun Aplikasi Point of Seles (POS) untuk Toko Kecil." (2021).
- Sura, R. A., & Fauzi, M. (2025). Rancang Bangun Aplikasi Point of Sale dengan Menggunakan QR Code pada PT. Akari Berbasis Android. *TAMIKA: Jurnal Tugas Akhir Manajemen Informatika & Komputerisasi Akuntansi*, 5(2), 311-319.
- Gani, A. G., Dewi, P. F., & Sugiharto, A. (2023). Sistem informasi point of sale berbasis web pada Dapur Caringin Tilu Bandung. *JSI (Jurnal sistem Informasi) Universitas Suryadarma*, 10(2), 11-22.

L
A
M
P
I
R
A
N

```

package com.example.pos_warung

import android.content.Intent
import android.os.Bundle
import android.view.animation.AnimationUtils
import android.widget.Button
import android.widget.EditText
import android.widget.ImageView
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity
import com.google.firebase.auth.FirebaseAuth
import android.widget.TextView

class LoginActivity : AppCompatActivity() {

    private lateinit var auth: FirebaseAuth

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_login)

        auth = FirebaseAuth.getInstance()

        val logo = findViewById<ImageView>(R.id.imgLogoLogin)
        val etEmail = findViewById<EditText>(R.id.etEmail)
        val etPassword = findViewById<EditText>(R.id.etPassword)
        val btnLogin = findViewById<Button>(R.id.btnLogin)

        logo.startAnimation(
            AnimationUtils.loadAnimation(this,
                android.R.anim.slide_in_left)
        )

        btnLogin.setOnClickListener {
            val email = etEmail.text.toString().trim()
            val password = etPassword.text.toString().trim()

            if (email.isEmpty() || password.isEmpty()) {
                showCustomToast("Email dan Password wajib diisi")
            } else {
                loginUser(email, password)
            }
        }
    }

    private fun loginUser(email: String, password: String) {
        auth.signInWithEmailAndPassword(email, password)
            .addOnCompleteListener(this) { task ->
                if (task.isSuccessful) {
                    showCustomToast("Login Berhasil")
                    startActivity(Intent(this,
MainActivity::class.java))

```

```

        finish()
    } else {
        showCustomToast("Login Gagal")
    }
}

private fun showCustomToast(message: String) {
    val inflater = layoutInflater
    val layout = inflater.inflate(R.layout.toast_custom, null)

    val text = layout.findViewById<TextView>(R.id.txtToast)
    text.text = message

    val toast = Toast(applicationContext)
    toast.duration = Toast.LENGTH_SHORT
    toast.view = layout
    toast.show()
}
}

```

```

package com.example.pos_warung

import android.app.DatePickerDialog
import android.os.Bundle
import android.widget.TextView
import androidx.appcompat.app.AppCompatActivity
import androidx.recyclerview.widget.LinearLayoutManager
import androidx.recyclerview.widget.RecyclerView
import com.example.pos_warung.adapter.LaporanAdapter
import com.example.pos_warung.model.Transaksi
import com.google.firebase.firestore.FirebaseFirestore
import java.text.SimpleDateFormat
import java.util.*

class LaporanActivity : AppCompatActivity() {

    private val db = FirebaseFirestore.getInstance()
    private val listLaporan = mutableListOf<Transaksi>()

    private lateinit var adapter: LaporanAdapter
    private lateinit var txtTotalOmzet: TextView
    private lateinit var txtTanggalFilter: TextView

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_laporan)
    }
}

```

```

        txtTotalOmzet = findViewById(R.id.txtTotalOmzet)
        txtTanggalFilter = findViewById(R.id.txtTanggalFilter)
        val rv = findViewById<RecyclerView>(R.id.rvLaporan)

        adapter = LaporanAdapter(listLaporan)
        rv.layoutManager = LinearLayoutManager(this)
        rv.adapter = adapter

        txtTanggalFilter.setOnClickListener {
            pilihTanggal()
        }

        loadLaporanHariIni()
    }

    private fun loadLaporanHariIni() {
        val today = getToday()
        txtTanggalFilter.text = "Tanggal: $today"
        loadLaporan(today)
    }

    private fun pilihTanggal() {
        val cal = Calendar.getInstance()
        DatePickerDialog(
            this,
            { _, y, m, d ->
                val tanggal = "%04d-%02d-%02d".format(y, m + 1, d)
                txtTanggalFilter.text = "Tanggal: $tanggal"
                loadLaporan(tanggal)
            },
            cal.get(Calendar.YEAR),
            cal.get(Calendar.MONTH),
            cal.get(Calendar.DAY_OF_MONTH)
        ).show()
    }

    private fun loadLaporan(tanggalFilter: String) {
        db.collection("transaksi")
            .get()
            .addOnSuccessListener { result ->
                listLaporan.clear()
                var totalOmzet = 0

                for (doc in result) {

                    val tanggalAny = doc.get("tanggal")

                    val tanggalText = when (tanggalAny) {
                        is com.google.firebase.Timestamp -> {
                            SimpleDateFormat(
                                "yyyy-MM-dd HH:mm",

```

```

        Locale.getDefault()
        ).format(tanggalAny.toString())
    }
    is String -> tanggalAny
    else -> "-"
}

if (tanggalText.startsWith(tanggalFilter)) {
    val trx = Transaksi(
        id = doc.id,
        tanggalText = tanggalText,
        total = doc.getLong("total")?.toInt() ?:
0,
        bayar = doc.getLong("bayar")?.toInt() ?:
0,
        kembalian =
doc.getLong("kembalian")?.toInt() ?: 0
    )

    listLaporan.add(trx)
    totalOmzet += trx.total
}

txtTotalOmzet.text = "Total Omzet: Rp $totalOmzet"
adapter.notifyDataSetChanged()
}

private fun getToday(): String {
    val cal = Calendar.getInstance()
    return "%04d-%02d-%02d".format(
        cal.get(Calendar.YEAR),
        cal.get(Calendar.MONTH) + 1,
        cal.get(Calendar.DAY_OF_MONTH)
    )
}

private fun formatTanggal(ts: com.google.firebase.Timestamp?):
String {
    if (ts == null) return "-"
    val sdf = SimpleDateFormat("yyyy-MM-dd HH:mm",
Locale.getDefault())
    return sdf.format(ts.toString())
}
}

```

```

package com.example.pos_warung

import android.app.DatePickerDialog
import android.os.Bundle
import android.widget.TextView
import androidx.appcompat.app.AppCompatActivity
import androidx.recyclerview.widget.LinearLayoutManager
import androidx.recyclerview.widget.RecyclerView
import com.example.pos_warung.adapter.LaporanAdapter
import com.example.pos_warung.model.Transaksi
import com.google.firebase.firestore.FirebaseFirestore
import java.text.SimpleDateFormat
import java.util.*

class LaporanActivity : AppCompatActivity() {

    private val db = FirebaseFirestore.getInstance()
    private val listLaporan = mutableListOf<Transaksi>()

    private lateinit var adapter: LaporanAdapter
    private lateinit var txtTotalOmzet: TextView
    private lateinit var txtTanggalFilter: TextView

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_laporan)

        txtTotalOmzet = findViewById(R.id.txtTotalOmzet)
        txtTanggalFilter = findViewById(R.id.txtTanggalFilter)
        val rv = findViewById<RecyclerView>(R.id.rvLaporan)

        adapter = LaporanAdapter(listLaporan)
        rv.layoutManager = LinearLayoutManager(this)
        rv.adapter = adapter

        txtTanggalFilter.setOnClickListener {
            pilihTanggal()
        }

        loadLaporanHariIni()
    }

    private fun loadLaporanHariIni() {
        val today = getToday()
        txtTanggalFilter.text = "Tanggal: $today"
        loadLaporan(today)
    }
}

```

```

private fun pilihTanggal() {
    val cal = Calendar.getInstance()
    DatePickerDialog(
        this,
        { _, y, m, d ->
            val tanggal = "%04d-%02d-%02d".format(y, m + 1, d)
            txtTanggalFilter.text = "Tanggal: $tanggal"
            loadLaporan(tanggal)
        },
        cal.get(Calendar.YEAR),
        cal.get(Calendar.MONTH),
        cal.get(Calendar.DAY_OF_MONTH)
    ).show()
}

private fun loadLaporan(tanggalFilter: String) {
    db.collection("transaksi")
        .get()
        .addOnSuccessListener { result ->
            listLaporan.clear()
            var totalOmzet = 0

            for (doc in result) {

                val tanggalAny = doc.get("tanggal")

                val tanggalText = when (tanggalAny) {
                    is com.google.firebase.Timestamp -> {
                        SimpleDateFormat(
                            "yyyy-MM-dd HH:mm",
                            Locale.getDefault()
                        ).format(tanggalAny.toDate())
                    }
                    is String -> tanggalAny
                    else -> "-"
                }

                if (tanggalText.startsWith(tanggalFilter)) {
                    val trx = Transaksi(
                        id = doc.id,
                        tanggalText = tanggalText,
                        total = doc.getLong("total")?.toInt() ?:
0,
                        bayar = doc.getLong("bayar")?.toInt() ?:
0,
                        kembalian =
doc.getLong("kembalian")?.toInt() ?: 0
                    )

                    listLaporan.add(trx)
                    totalOmzet += trx.total
                }
            }
        }
    }

```

```

        }
    }

    txtTotalOmzet.text = "Total Omzet: Rp $totalOmzet"
    adapter.notifyDataSetChanged()
}

private fun getToday(): String {
    val cal = Calendar.getInstance()
    return "%04d-%02d-%02d".format(
        cal.get(Calendar.YEAR),
        cal.get(Calendar.MONTH) + 1,
        cal.get(Calendar.DAY_OF_MONTH)
    )
}

private fun formatTanggal(ts: com.google.firebase.Timestamp?):
String {
    if (ts == null) return "-"
    val sdf = SimpleDateFormat("yyyy-MM-dd HH:mm",
Locale.getDefault())
    return sdf.format(ts.toDate())
}
}
package com.example.pos_warung

import android.content.Intent
import android.os.Bundle
import android.widget.TextView
import androidx.appcompat.app.AppCompatActivity
import com.google.android.material.card.MaterialCardView
import com.google.firebase.auth.FirebaseAuth

class MainActivity : AppCompatActivity() {

    private lateinit var auth: FirebaseAuth
    private lateinit var txtUser: TextView

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        auth = FirebaseAuth.getInstance()

        txtUser = findViewById(R.id.txtUser)

        val currentUser = auth.currentUser
        if (currentUser == null) {
            startActivity(Intent(this, LoginActivity::class.java))
            finish()
        }
    }
}

```

```

        return
    }
    txtUser.text = "Selamat datang, ${currentUser.email}"

    findViewById<MaterialCardView>(R.id.menuBarang).setOnClickListener {
        startActivity(Intent(this, BarangActivity::class.java))
    }

    findViewById<MaterialCardView>(R.id.menuTransaksi).setOnClickListener {
        startActivity(Intent(this, TransaksiActivity::class.java))
    }

    findViewById<MaterialCardView>(R.id.menuLaporan).setOnClickListener {
        startActivity(Intent(this, LaporanActivity::class.java))
    }

    findViewById<MaterialCardView>(R.id.menuLogout).setOnClickListener {
        auth.signOut()
        startActivity(Intent(this, LoginActivity::class.java))
        finish()
    }
}

```

```

package com.example.pos_warung

import android.content.Intent
import android.os.Bundle
import android.os.Handler
import android.os.Looper
import android.view.animation.AnimationUtils
import android.widget.ImageView
import androidx.appcompat.app.AppCompatActivity

class SplashActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_splash)

        val logo = findViewById<ImageView>(R.id.imgLogo)
    }
}

```

```

        logo.startAnimation(
            android.view.animation.AnimationUtils.loadAnimation(
                this,
                android.R.anim.fade_in
            )
        )

        Handler(Looper.getMainLooper()).postDelayed({
            startActivity(Intent(this, LoginActivity::class.java))
            finish()
        }, 2000) //
    }
}

```

```

package com.example.pos_warung

import android.os.Bundle
import android.text.Editable
import android.text.TextWatcher
import android.widget.*
import androidx.appcompat.app.AppCompatActivity
import androidx.recyclerview.widget.LinearLayoutManager
import androidx.recyclerview.widget.RecyclerView
import com.example.pos_warung.adapter.BarangTransaksiAdapter
import com.example.pos_warung.adapter.KeranjangAdapter
import com.example.pos_warung.model.Barang
import com.example.pos_warung.model.Keranjang
import com.google.firebase.firestore.FirebaseFirestore
import java.text.SimpleDateFormat
import java.util.*

class TransaksiActivity : AppCompatActivity() {

    private val db = FirebaseFirestore.getInstance()

    private val listBarang = mutableListOf<Barang>()
    private val listKeranjang = mutableListOf<Keranjang>()

    private lateinit var adapterBarang: BarangTransaksiAdapter
    private lateinit var adapterKeranjang: KeranjangAdapter

    private lateinit var txtTotal: TextView
    private lateinit var txtKembalian: TextView
    private lateinit var etBayar: EditText
    private lateinit var btnSimpan: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
    }
}

```

```

setContentView(R.layout.activity_transaksi)

val rvBarang = findViewById<RecyclerView>(R.id.rvBarang)
rvBarang.layoutManager = LinearLayoutManager(this)

adapterBarang = BarangTransaksiAdapter(listBarang) { barang ->
    tambahKeKeranjang(barang)
}
rvBarang.adapter = adapterBarang

txtTotal = findViewById(R.id.txtTotal)
txtKembalian = findViewById(R.id.txtKembalian)
etBayar = findViewById(R.id.etBayar)
btnSimpan = findViewById(R.id.btnSimpan)

val rvKeranjang = findViewById<RecyclerView>(R.id.rvKeranjang)
rvKeranjang.layoutManager = LinearLayoutManager(this)

adapterKeranjang = KeranjangAdapter(listKeranjang) {
    hitungTotal()
}
rvKeranjang.adapter = adapterKeranjang

etBayar.addTextChangedListener(object : TextWatcher {
    override fun afterTextChanged(s: Editable?) {
        hitungKembalian()
    }
    override fun beforeTextChanged(s: CharSequence?, start:
Int, count: Int, after: Int) {}
    override fun onTextChanged(s: CharSequence?, start: Int,
before: Int, count: Int) {}
}))

btnSimpan.setOnClickListener {
    simpanTransaksi()
}

loadBarang()
}

private fun loadBarang() {
    db.collection("barang")
        .get()
        .addOnSuccessListener { result ->
            listBarang.clear()
            for (doc in result) {
                val barang = doc.toObject(Barang::class.java)
                barang.id = doc.id
                listBarang.add(barang)
            }
            adapterBarang.notifyDataSetChanged()
        }
}

```

```

    }
}

private fun tambahKeKeranjang(barang: Barang) {
    val exist = listKeranjang.find { it.kode == barang.kode }

    if (exist != null) {
        exist.qty++
        exist.subtotal = exist.qty * exist.harga
    } else {
        listKeranjang.add(
            Keranjang(
                kode = barang.kode,
                nama = barang.nama,
                harga = barang.harga,
                qty = 1,
                subtotal = barang.harga
            )
        )
    }
    adapterKeranjang.notifyDataSetChanged()
    hitungTotal()
}

private fun hitungTotal() {
    val total = listKeranjang.sumOf { it.subtotal }
    txtTotal.text = "Total: Rp $total"
    hitungKembalian()
}

private fun hitungKembalian() {
    val bayar = etBayar.text.toString().toIntOrNull() ?: 0
    val total = listKeranjang.sumOf { it.subtotal }
    txtKembalian.text = "Kembalian: Rp ${bayar - total}"
}

private fun simpanTransaksi() {
    if (listKeranjang.isEmpty()) {
        toast("Keranjang kosong")
        return
    }

    val bayar = etBayar.text.toString().toIntOrNull() ?: 0
    val total = listKeranjang.sumOf { it.subtotal }

    if (bayar < total) {
        toast("Uang bayar kurang")
        return
    }

    val transaksi = hashMapOf(

```

```

        "tanggal" to SimpleDateFormat("yyyy-MM-dd HH:mm:ss",
Locale.getDefault()).format(Date()),
        "total" to total,
        "bayar" to bayar,
        "kembalian" to (bayar - total),
        "items" to listKeranjang
    )

    db.collection("transaksi")
        .add(transaksi)
        .addOnSuccessListener {
            updateStok()
            reset()
            toast("Transaksi berhasil")
        }
    }

private fun updateStok() {
    for (item in listKeranjang) {
        val barang = listBarang.find { it.kode == item.kode }
        if (barang != null) {
            db.collection("barang")
                .document(barang.id)
                .update("stok", barang.stok - item.qty)
        }
    }
}

private fun reset() {
    listKeranjang.clear()
    adapterKeranjang.notifyDataSetChanged()
    etBayar.text.clear()
    txtTotal.text = "Total: Rp 0"
    txtKembalian.text = "Kembalian: Rp 0"
}

private fun toast(msg: String) {
    Toast.makeText(this, msg, Toast.LENGTH_SHORT).show()
}
}

```





