**Perancangan Aplikasi Sederhana**

**Sistem Pengelolaan Toko Roti**

Dibuat untuk memenuhi tugas akhir mata kuliah Konsep Basis Data



Oleh:

|  |  |  |
| --- | --- | --- |
| **Nama** | **: Astri Musidah** | |
| **Kelas/NPM** | **: F/432006007190065** | |
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**PROGRAM STUDI TEKNIK INFORMATIKA**

**SEKOLAH TINGGI MANAJEMEN INFORMATIKA DAN KOMPUTER**

**STMIK TASIKMALAYA**

Jl R.E. Martadinata no 272A 🖀(0265) 310830 Tasikmalaya

2019

1. **Perancangan Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Table** | **Key** | **Kolom** | **Tipe Data** |
| Makanan | PK | idMakanan | autoNumber |
|  | namaMakanan | Text(100) |
|  | Harga | Number |
|  | Status | Text(15) |
| Pegawai | PK | idPegawai | autoNumber |
|  | namaPegawai | Text(100) |
|  | Password | Text(100) |
|  | Alamat | Text(150) |
|  | Telp | Text(13) |
|  | Status | Text(15) |
|  | Email | Text(100) |
| FK | idLevelPegawai | Number |
| LevelPegawai | PK | idLevelPegawai | Number |
|  | levelPegawai | Text(100) |
| BahanMakanan | PK | idBahanMakanan | autoNumber |
|  | namaBahan | Text(100) |
|  | Deskripsi | Text(150) |
| FK | idPegawai | Number |
|  | tanggalMasuk | Date |
|  | Status | Text(15) |
| ResepHead | PK | idResep | autoNumber |
| FK | idMakanan | Number |
|  | QtyHasil | Number |
|  | Deskripsi | Text(150) |
| FK | idPegawai | Number |
|  | tanggalPembuatan | Datetime |
|  | Status | Text(15) |
| ResepDetail | PK | idResepDetail | autoNumber |
| FK | idResep | Number |
| FK | idBahanMakanan | Number |
|  | Takaran | Number |
| ProduksiHead | PK | idProduksi | autoNumber |
|  | tanggalProduksi | dateTime |
|  | Deskripsi | Text(150) |
| FK | idPegawai | Number |
|  | Status | Text(15) |
| ProduksiDetail | FK | idProduksi | Number |
| PK | NoProduksi | autoNumber |
| FK | idMakanan | Number |
|  | QtyHasilProduksi | Number |
|  | tanggalKadaluarsa | Date |
| BahanKeluar | PK | idBahanKeluar | autoNumber |
| FK | NoProduksi | Number |
| FK | idBahanMakanan | Number |
| FK | idBahanMasuk | Number |
|  | takaranGram | Number |
| BahanMasukHead | PK | idBahanMasuk | autoNumber |
|  | tanggalMasuk | Date |
| FK | idPegawai | Number |
|  | Deskripsi | Text(150) |
| BahanMasukDetail | PK | idBahanMasukDetail | autoNumber |
| FK | idBahanMasuk | Number |
| FK | idBahanMakanan | Number |
|  | Harga | Number |
|  | tanggalKadaluarsa | Date |
|  | Takaran | Number |
| PenjualanHead | PK | idPenjualan | autoNumber |
|  | tanggalPenjualan | Datetime |
|  | Diskon | Number |
|  | idPegawai | Number |
| PenjualanDetail | PK | idPenjualanDetail | autoNumber |
| FK | idPenjualan | Number |
| FK | idMakanan | Number |
|  | noProduksi | Number |
|  | Qty | Number |
|  | harga | Number |

1. **Perancangan ERD**

Memiliki

Memiliki

Makanan

Resep

Penjualan

Melakukan

Memiliki

Pegawai

Produksi

Melakukan

Bahan Masuk

Bahan Keluar

Bahan Makanan

Memiliki

1. **Normalisasi**
2. **Anomali Data**

Contoh Data anomali:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Toko Roti “astrimsdh\_”** | | | | No. Faktur | : 01012001 |
| Jl. Rte Martadinata No. 27 | | | | Tanggal | : 01/01/2020 |
| Telp. 021-678876788 | | | | Kasir | : Deden |
| **BON PEMBELIAN** | | | | | |
|  | | | | | |
| Kode Makanan | Nama Makanan | Qty | Harga | Diskon | Jumlah Rp. |
| R001 | Roti Sari Murni Chese Cake | 2 | 7000 | 1000 | 14000 |
| R002 | Ramona Chocolate Cake | 1 | 4000 | 0 | 4000 |
| Potongan | | | | | 2000 |
| Total Rp. | | | | | 16000 |

1. **Normal Form (1NF)**

Bon Pembelian

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. Faktur | Tanggal | Kasir | Kode Makanan | Nama Makanan | Qty | Harga | … |
| 01012001 | 01/01/2020 | Deden | R001 | Roti Sari Murni Chese Cake | 2 | 7000 | … |
| 01012001 | 01/01/2020 | Deden | R002 | Ramona Chocolate Cake | 1 | 4000 | … |

|  |  |  |  |
| --- | --- | --- | --- |
| Diskon | Jumlah | Potongan | Total |
| 1000 | 14000 | 2000 | 12000 |
| 0 | 4000 | 0 | 4000 |

1. **Normal Form (2NF)**

|  |  |
| --- | --- |
| **ID Kasir** | **Kasir** |
| K001 | Deden |

|  |  |  |
| --- | --- | --- |
| **Kode Makanan** | **Nama Makanan** | **Harga** |
| R001 | Roti Sari Murni Chese Cake | 7000 |
| R002 | Ramona Chocolate Cake | 4000 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No. Faktur** | **Tanggal** | **ID Kasir** | **Kode Makanan** | **Qty** | **Harga** | **Diskon** | **Jumlah** | **Potongan** | **Total** |
| 01012001 | 01/01/2020 | K001 | R001 | 2 | 7000 | 1000 | 14000 | 2000 | 12000 |
| 01012001 | 01/01/2020 | K001 | R002 | 1 | 4000 | 0 | 4000 | 0 | 4000 |

1. **Normal Form (3NF)**

|  |  |
| --- | --- |
| **ID Kasir** | **Kasir** |
| K001 | Deden |

|  |  |  |
| --- | --- | --- |
| **Kode Makanan** | **Nama Makanan** | **Harga** |
| R001 | Roti Sari Murni Chese Cake | 7000 |
| R002 | Ramona Chocolate Cake | 4000 |

|  |  |  |  |
| --- | --- | --- | --- |
| **No. Faktur** | **Tanggal** | **ID Kasir** | **Potongan** |
| 01012001 | 01/01/2020 | K001 | 2000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No. Faktur** | **Kode Makanan** | **Qty** | **Harga** | **Diskon** |
| 01012001 | R001 | 2 | 7000 | 1000 |
| 01012001 | R002 | 1 | 4000 | 0 |