**Praktikum 3 Sistem Basis Data 2023**

**NRP / Nama : Ahmad Fadhilah Mappisara  
Kelas : SBD - K**

**RDBMS : MySQL**

**Link SQL :**

**Kode Asdos : SBDK002**

**Sesi : Praktikum**

**Nomor 1**

Sintaks:

**SELECT**

P.NIK,

P.Nama **AS** Customer\_Name,

P.Asal\_Kota **AS** Customer\_City

**FROM**

Pelanggan P

**JOIN**

Transaksi T **ON** P.NIK = T.Pelanggan\_NIK

**WHERE**

P.Membership\_ID **IS** **NOT** **NULL**

**AND** T.Waktu\_Mulai > '2023-01-01 08:00:00';

Hasil:

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**Nomor 2**

Sintaks:

**SELECT**

C.\*,

**COUNT**(T.ID) **AS** Transaction\_Count

**FROM**

Cabang C

**LEFT** **JOIN**

Transaksi T **ON** C.ID = T.Cabang\_ID

**GROUP** **BY**

C.ID, C.Alamat, C.Kecamatan, C.Tanggal\_Pembukaan

**ORDER** **BY**

C.ID;

Hasil:

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**Nomor 3**

Sintaks:

**SELECT**

P.NIK,

P.Nama **AS** Customer\_Name,

P.Asal\_Kota **AS** Customer\_City,

P.Usia

**FROM**

Pelanggan P

**WHERE**

P.Usia > (

**SELECT**

**AVG**(**TIMESTAMPDIFF**(**YEAR**, Tanggal\_Lahir, **CURDATE**()))

**FROM**

Pegawai

);

Hasil:

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**Nomor 4**

Sintaks:

**SELECT**

T.Cabang\_ID **AS** Branch\_ID,

**GROUP\_CONCAT**(S.ID) **AS** Bike\_ID\_List,

**COUNT**(T.ID) **AS** Brand\_Transaction\_Count

**FROM**

Transaksi T

**JOIN**

Sepeda S **ON** T.Sepeda\_ID = S.ID

**JOIN** (

**SELECT**

T1.Cabang\_ID,

S1.Merek,

**COUNT**(T1.ID) **AS** Brand\_Count

**FROM**

Transaksi T1

**JOIN**

Sepeda S1 **ON** T1.Sepeda\_ID = S1.ID

**GROUP** **BY**

T1.Cabang\_ID, S1.Merek

) **AS** BrandCount **ON** T.Cabang\_ID = BrandCount.Cabang\_ID **AND** S.Merek = BrandCount.Merek

**WHERE**

(S.Merek, BrandCount.Brand\_Count) **IN** (

**SELECT**

Merek,

**MAX**(Brand\_Count)

**FROM**

(

**SELECT**

T2.Cabang\_ID,

S2.Merek,

**COUNT**(T2.ID) **AS** Brand\_Count

**FROM**

Transaksi T2

**JOIN**

Sepeda S2 **ON** T2.Sepeda\_ID = S2.ID

**GROUP** **BY**

T2.Cabang\_ID, S2.Merek

) **AS** MaxBrandCount

**GROUP** **BY**

Merek

)

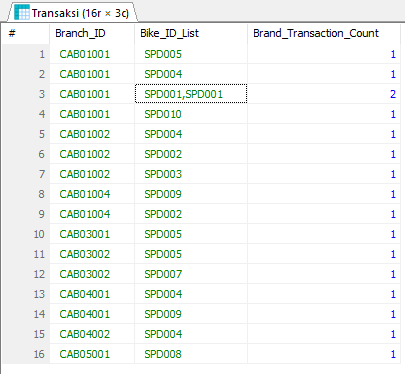
**GROUP** **BY**

T.Cabang\_ID, S.Merek

**ORDER** **BY**

T.Cabang\_ID;

Hasil:



**Nomor 5**

Sintaks:

**SELECT**

P.Nama **AS** Customer\_Name,

P.Membership\_ID,

**COUNT**(T.ID) **AS** Total\_Transactions

**FROM**

Pelanggan P

**JOIN**

Transaksi T **ON** P.NIK = T.Pelanggan\_NIK

**JOIN**

Membership M **ON** P.Membership\_ID = M.ID

**WHERE**

**DATE**(M.Tanggal\_Pendaftaran) = **DATE**(T.Tanggal\_Sewa)

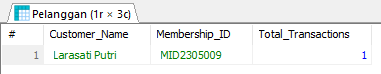
**GROUP** **BY**

P.NIK, P.Membership\_ID

**ORDER** **BY**

Total\_Transactions **DESC**;

Hasil:



**Nomor 6**

Sintaks:

**SELECT**

P.Nama **AS** Employee\_Name,

P.Tanggal\_Mulai\_Bekerja **AS** Start\_Date,

**COUNT**(T.ID) **AS** Number\_of\_Transactions

**FROM**

Pegawai P

**JOIN**

Transaksi T **ON** P.ID = T.Pegawai\_ID

**WHERE**

**YEAR**(P.Tanggal\_Mulai\_Bekerja) = 2023

**GROUP** **BY**

P.ID, P.Nama, P.Tanggal\_Mulai\_Bekerja

**ORDER** **BY**

Number\_of\_Transactions **DESC**;

Hasil:

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**Nomor 7**

Sintaks:

**SELECT**

S.Jenis **AS** Bike\_Type,

**COUNT**(T.ID) **AS** Number\_of\_Bikes\_Rented

**FROM**

Sepeda S

**JOIN**

Transaksi T **ON** S.ID = T.Sepeda\_ID

**WHERE**

**MONTH**(T.Tanggal\_Sewa) = **MONTH**(**CURRENT\_DATE**())

**AND** **YEAR**(T.Tanggal\_Sewa) = **YEAR**(**CURRENT\_DATE**())

**GROUP** **BY**

S.Jenis

**ORDER** **BY**

Number\_of\_Bikes\_Rented **DESC**;

Hasil:

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**Nomor 8**

Sintaks:

**SELECT**

P.Nama **AS** Customer\_Name,

P.Nomor\_Telepon **AS** Phone\_Number,

P.Membership\_ID

**FROM**

Pelanggan P

**JOIN**

Transaksi T **ON** P.NIK = T.Pelanggan\_NIK

**JOIN**

Sepeda S **ON** T.Sepeda\_ID = S.ID

**WHERE**

S.Jenis = 'Gunung'

**GROUP** **BY**

P.NIK, P.Nama, P.Nomor\_Telepon, P.Membership\_ID

**HAVING**

**COUNT**(T.ID) > 1;

Hasil:

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**Nomor 9**

Sintaks:

**SELECT**

T.ID **AS** Transaction\_ID,

T.Tanggal\_Sewa **AS** Rental\_Date,

**TIMESTAMPDIFF**(**HOUR**, T.Waktu\_Mulai, T.Waktu\_Selesai) **AS** Rental\_Duration,

S.Jenis **AS** Bike\_Type,

(**TIMESTAMPDIFF**(**HOUR**, T.Waktu\_Mulai, T.Waktu\_Selesai) \* S.Harga\_Sewa\_Per\_Jam) **AS** Total\_Rental\_Cost

**FROM**

Transaksi T

**JOIN**

Sepeda S **ON** T.Sepeda\_ID = S.ID

**WHERE**

**TIMESTAMPDIFF**(**HOUR**, T.Waktu\_Mulai, T.Waktu\_Selesai) > (

**SELECT**

**AVG**(**TIMESTAMPDIFF**(**HOUR**, Waktu\_Mulai, Waktu\_Selesai))

**FROM**

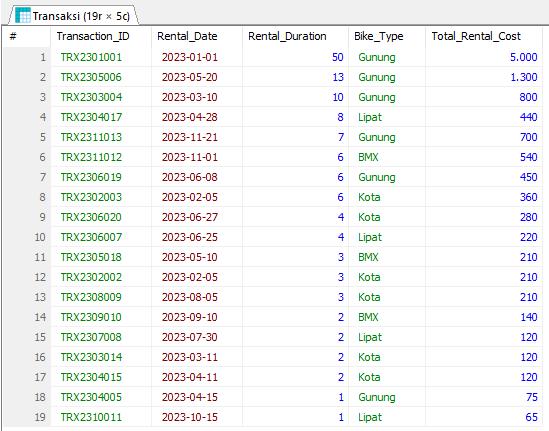
Transaksi

)

**ORDER** **BY**

Rental\_Duration **DESC**;

Hasil:



**Nomor 10**

Sintaks:

**SELECT**

Cabang\_ID **AS** Branch\_ID,

**COUNT**(ID) **AS** Number\_of\_Transactions

**FROM**

Transaksi

**GROUP** **BY**

Cabang\_ID

**HAVING**

**COUNT**(ID) = (

**SELECT**

**MIN**(TransactionCount)

**FROM** (

**SELECT**

Cabang\_ID,

**COUNT**(ID) **AS** TransactionCount

**FROM**

Transaksi

**GROUP** **BY**

Cabang\_ID

) **AS** BranchTransactionCounts

);

Hasil:

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