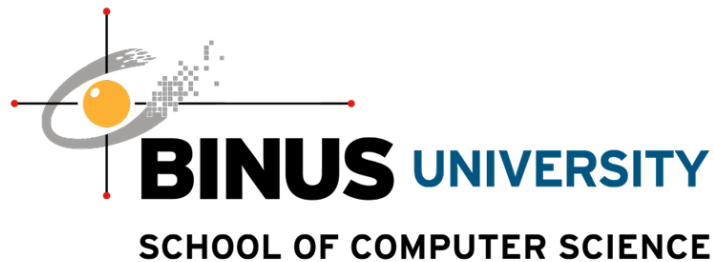


Final Report AOL

Database Technology - COMP6799001

LA09

Motor Vehicle Repair Request Report Form – Group 12



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Chapter 1

Identification of Performance Problem

1.1 Case

We are using a Motor Vehicle Repair Request Report Form. In this case, a conglomerate company named PT. Trias Jaya Utama owns several subsidiaries. These subsidiaries are required to report motor vehicle repair requests if they wish to have the repair budget approved by the head office. As the head office, it is responsible for recording every transaction for future audits.

1.2 Purpose

To improve the company's efficiency, data must be organized and as clean as possible. This will help reduce errors and data anomalies, streamline the audit process, and facilitate data modeling efforts.

Chapter 2

Preparation for the Sample Data

2.1 Data Sample

We prepared data from 10 forms. The UNF (Unnormalized Form) table includes all the attributes from the forms, such as Nama Perusahaan, Alamat Perusahaan, Tel. Perusahaan, Web Perusahaan, No. Pol. Kendaraan, Km Sekarang, Model, Tahun Pembuatan, Permohonan Service/Perbaikan, S/P, Tanggal S/P Sebelumnya, KM S/P Sebelumnya, Perkiraan Biaya, Total, Disetujui Oleh, Rekomendasi Bengkel, Pemohon. Additionally, the data has not undergone any transformation.

Nama Perusahaan	Alamat Perusahaan	Nomor Telepon Perusahaan	Alamat Website Perusahaan	NO. POLISI KENDARAAN
PT Kreasi Digital Nusantara	Gedung Graha Teknologi, Lantai 10, Jl. Jenderal Sudirman Kav. 52, Jakarta Selatan 12190, DKI Jakarta, Indonesia	628172635582	http://kreasidigital.id/	B 444 GUS
PT Inovasi Masa Depan	Kompleks Perkantoran BSD City, Blok AA-1, Tangerang Selatan 15335, Banten, Indonesia	628376152435	http://inovasimasa.com/	B 1234 ABC
PT Transformasi Bisnis Indonesia	Menara Astra, Jl. Jenderal Sudirman Kav. 45, Jakarta Selatan 12190, DKI Jakarta, Indonesia	628472651242	http://transformasibisnis.id/	D 3283 ADL
PT Mitra Teknologi Global	Kawasan Industri Jababeka, Cikarang, Bekasi 17530, Jawa Barat, Indonesia	625341762836	http://mitrateknologi.com/	BK 5392 EIA
PT Harmoni Bumi Nusantara	Jl. Raya Kuta, Badung, Bali 80361, Indonesia	628472615243	http://harmonibumi.com/	L 2458 HUK
PT Lestari Alam Indonesia	Jl. Diponegoro No. 100, Yogyakarta 55122, Daerah Istimewa Yogyakarta, Indonesia	628673514234	http://lestarialam.id/	D 4822 KLM
PT Karya Anak Bangsa	Gedung Sentra Bisnis, Jl. Ahmad Yani, Surabaya 60235, Jawa Timur, Indonesia	628351425374	http://karyabangsa.com/	BK 2222 QWE
PT Warisan Budaya Indonesia	Kompleks Candi Prambanan, Sleman, Yogyakarta 55571, Daerah Istimewa Yogyakarta, Indonesia	628560372635	http://warisanbudaya.id/	DD 1933 WJG
PT Nusantara Jaya	Menara BCA, Jl. MH Thamrin No. 1, Jakarta Pusat 10310, DKI Jakarta, Indonesia	628172635582	http://nusantarajaya.com/	B 277 KNN
PT Solusi Cerdas Indonesia	Ruko Taman Palem Lestari Blok A No. 12, Cengkareng, Jakarta Barat 11730, DKI Jakarta, Indonesia	628476517365	http://solusicerdas.id/	DD 2222 FAR

POSISI KM SEKARANG	MERK / MODEL	TAHUN PEMBUATAN	PERMOHONAN SERVICE / PERBAIKAN	S/P	S/P SEBELUMNYA	PERKIRAAN BIAYA	TOTAL	DISETUJUI OLEH	REKOMENDASI BENGKEL	PEMOHON	
					TANGGAL	POSISI KM					
85000	HONDA CIVIC	2020	PERBAIKAN REM	P	10/01/24	75000	Rp1.200.000,00	Rp2.100.000,00	ARIQ	BENGKEL AMAN REM	RAFIF
85000	HONDA CIVIC	2020	TUNE-UP MESIN	P	10/01/24	75000	Rp900.000,00		ARIQ	BENGKEL TUNEMAX	RAFIF
120000	TOYOTA AVANZA	2018	SERVICE RUTIN	S	01/07/24	110000	Rp500.000,00	Rp800.000	NIZAR	BENGKEL MITRA JAYA	FAHRI
120000	TOYOTA AVANZA	2018	GANTI OLI	S	01/03/24	100000	Rp300.000,00		NIZAR	BENGKEL OLI PRO	FAHRI
65000	HYUNDAI IONIQ 5	2022	GANTI AKI	S	20/10/24	60000	Rp1.000.000,00	Rp1.000.000	RAKA	BENGKEL PRIMA AKI	ALIF
45000	MITSUBISHI XPANDER	2020	GANTI AKI	S	15/06/24	40000	Rp900.000,00	Rp900.000	ZAKI	BENGKEL PRIMA AKI	DANI
60000	SUZUKI ERTIGA	2017	GANTI BAN	P	12/12/23	55000	Rp2.400.000,00	Rp3.100.000	YUSUF	BENGKEL SAPUTRA BAN	ILHAM
60000	SUZUKI ERTIGA	2017	SERVICE AC	S	20/06/23	50000	Rp700.000,00		YUSUF	BENGKEL DINGIN SEJATI	ILHAM
30000	NISSAN LEAF	2020	PERBAIKAN SUSPENSIF	P	25/05/24	90000	Rp1.800.000,00	Rp1.800.000	IRFAN	BENGKEL KAKI-KAKI JAYA	FADIL
100000	HONDA BRIO	2019	SERVICE RUTIN	S	02/01/24	95000	Rp1.000.000,00	Rp1.800.000	BAGAS	BENGKEL MITRA JAYA	FAKHRI
100000	HONDA BRIO	2019	TUNE-UP MESIN	P	01/08/23	85000	Rp800.000,00		BAGAS	BENGKEL TUNEMAX	FAKHRI
15000	BYD SEAL	2023	SERVICE RUTIN	S	10/10/24	10000	Rp500.000,00	Rp500.000	HAJIZ	BENGKEL MITRA JAYA	RAMZI
20000	BMW 320i	2022	GANTI OLI	S	18/03/24	15000	Rp500.000,00	Rp1.300.000	REZA	BENGKEL OLI PRO	ARIEF
20000	BMW 320i	2022	SERVICE RUTIN	S	18/03/24	15000	Rp800.000,00		REZA	BENGKEL MITRA JAYA	ARIEF
140000	TOYOTA INNOVA	2016	PERBAIKAN TRANSMISI	P	05/07/24	130000	Rp3.500.000,00	Rp5.500.000	GILANG	BENGKEL TRANS AUTO	ALWAN
140000	TOYOTA INNOVA	2016	GANTI KAMPAS KOPLING	P	02/01/24	120000	Rp2.000.000,00		GILANG	BENGKEL KOPLING HEBAT	ALWAN

Chapter 3

Overcoming and Recognizing Data Anomalies and Functional Dependencies

3.1 Insertion Anomalies

Insertion anomalies happen when certain attributes cannot be inserted into the database without other attributes. In other words, the data inserted into a database system must be complete. For example, insertion anomalies occurs if a new no. polisi kendaraan is inserted, the other attributes in the same row remain empty.

NAMA PERUSAHAAN	ALAMAT PERUSAHAAN	TEL. PERUSAHAAN	WEB PERUSAHAAN	NO. POL. KENDARAAN	KM SEKARANG	MODEL	TAHUN PEMBUATAN	PERMOHONAN SERVICE / PERBAIKAN	S/P	TANGGAL S/P SEBELUMNYA	KM S/P SEBELUMNYA
PT Kresna Digital Nusantara	Gedung Graha Teknologi, Lantai 10, Jl. Jenderal Sudirman Km. 12, Jakarta Selatan 12190, DKI Jakarta, Indonesia	62817363582	http://www.kresnadigital.id	B 444 GUS	80000	HONDA CIVIC	2020	PERBAIKAN REM	P	10/01/24	750
PT Kresna Masa Depan	Kompleks Perkantoran BSD City, Blok AA-1, Tangerang Selatan 15330, Banten, Indonesia	62817363582	http://www.kresnamasa.com	B 1234 ABC	80000	HONDA CIVIC	2020	TUNE-UP MESIN	P	10/01/24	750
PT Transmedia Bina Indonesia	Menara ARIA, Jl. Jenderal Sudirman Km. 15, Jakarta Selatan 12190, DKI Jakarta, Indonesia	62847361343	http://www.transmediabina.com	B 2381 ADL	120000	TOYOTA AVANZA	2018	SERVICE RUTIN	S	01/07/24	11000
PT Mitra Teknologi Global	Kawasan Industri Jababeka, Cikarang, Bekasi 17530, Jawa Barat, Indonesia	625341762836	http://www.mitrategnologi.com	BK 5392 EIA	40000	MITSUBISHI XPANDER	2020	GANTI AKI	S	15/06/24	4000
PT Harmoni Bumi Nusantara	Jl. Raya Kuta, Badung, Bali 80361, Indonesia	628473614234	http://www.harmoni bumi.com	L 2480 HKM	60000	SUZUKI ERTIGA	2017	GANTI BAN	P	12/12/23	5500
PT Lestari Alam Indonesia	Jl. Diponegoro No. 100, Yogyakarta 55122, Daerah Istimewa Yogyakarta, Indonesia	628673614234	http://www.lestari alam.id	D 4822 HKM	60000	SUZUKI ERTIGA	2017	SERVICE AC	S	20/06/23	5000
PT Karya Anak Bangsa	Gedung Sentra Bina, Jl. Ahmad Yani, Surabaya 60235, Jawa Timur, Indonesia	626311425374	http://www.karyaanakbangsa.com	BK 2222 QWE	100000	HONDA BRIO	2019	SERVICE RUTIN	S	02/01/24	9500
PT Wawasan Budaya Indonesia	Kompleks Candi Phrambaran, Sleman, Yogyakarta 55571, Daerah Istimewa Yogyakarta, Indonesia	628683726336	http://www.wawasanbudaya.id	DD 1933 WUG	110000	BYD SEAL	2023	SERVICE RUTIN	S	10/10/24	1000
PT Nusantara Jaya	Menara BCA, Jl. MH Thamrin No. 1, Jakarta Pusat 10310, DKI Jakarta, Indonesia	62817363582	http://www.nusantarajaya.com	B 277 KNU	20000	BMW 320i	2022	GANTI OLI	S	18/03/24	1500
PT Solusi Cerdas Indonesia	Ruko Taman Palem Lestari Blok A No. 12, Cempingrang, Jakarta Barat 11730, DKI Jakarta, Indonesia	628476117363	http://www.solusicerdas.id	DD 2222 FAR	140000	TOYOTA INNOVA	2016	PERBAIKAN TRANSMISI	P	05/07/24	13000
				B 1403 WGR	140000	TOYOTA INNOVA	2016	GANTI KAMPAS KOPLING	P	02/01/24	12000

3.2 Deletion Anomalies

Deletion anomalies occur when the removal of certain data leads to the unintended loss of other important information. For example, deletion anomalies occurs when deleting a vehicle's data no. polisi kendaraan will delete the entire row and impact the database.

NAMA PERUSAHAAN	ALAMAT PERUSAHAAN	TEL. PERUSAHAAN	WEB PERUSAHAAN	NO. POL. KENDARAAN	KM SEKARANG	MODEL	TAHUN PEMBUATAN	PERMOHONAN SERVICE / PERBAIKAN	S/P	TANGGAL S/P SEBELUMNYA	KM S/P SEBELUMNYA
PT Kresna Digital Nusantara	Gedung Graha Teknologi, Lantai 10, Jl. Jenderal Sudirman Km. 12, Jakarta Selatan 12190, DKI Jakarta, Indonesia	62817363582	http://www.kresnadigital.id	B 444 GUS	80000	HONDA CIVIC	2020	PERBAIKAN REM	P	10/01/24	750
PT Kresna Masa Depan	Kompleks Perkantoran BSD City, Blok AA-1, Tangerang Selatan 15330, Banten, Indonesia	62817363582	http://www.kresnamasa.com	B 1234 ABC	80000	HONDA CIVIC	2020	TUNE-UP MESIN	P	10/01/24	750
PT Transmedia Bina Indonesia	Kawasan Industri Jababeka, Cikarang, Bekasi 17530, Jawa Barat, Indonesia	625341762836	http://www.mitrategnologi.com	B 2381 ADL	120000	TOYOTA AVANZA	2018	SERVICE RUTIN	S	01/07/24	11000
PT Mitra Teknologi Global	Kawasan Industri Jababeka, Cikarang, Bekasi 17530, Jawa Barat, Indonesia	625341762836	http://www.mitrategnologi.com	BK 5392 EIA	40000	MITSUBISHI XPANDER	2020	GANTI AKI	S	15/06/24	4000
PT Harmoni Bumi Nusantara	Jl. Raya Kuta, Badung, Bali 80361, Indonesia	628473614234	http://www.harmoni bumi.com	L 2480 HKM	60000	SUZUKI ERTIGA	2017	GANTI BAN	P	12/12/23	5500
PT Lestari Alam Indonesia	Jl. Diponegoro No. 100, Yogyakarta 55122, Daerah Istimewa Yogyakarta, Indonesia	628673614234	http://www.lestari alam.id	D 4822 HKM	60000	SUZUKI ERTIGA	2017	SERVICE AC	S	20/06/23	5000
PT Karya Anak Bangsa	Gedung Sentra Bina, Jl. Ahmad Yani, Surabaya 60235, Jawa Timur, Indonesia	626311425374	http://www.karyaanakbangsa.com	BK 2222 QWE	100000	HONDA BRIO	2019	SERVICE RUTIN	S	02/01/24	9500
PT Wawasan Budaya Indonesia	Kompleks Candi Phrambaran, Sleman, Yogyakarta 55571, Daerah Istimewa Yogyakarta, Indonesia	628683726336	http://www.wawasanbudaya.id	DD 1933 WUG	110000	BYD SEAL	2023	SERVICE RUTIN	S	10/10/24	1000
PT Nusantara Jaya	Menara BCA, Jl. MH Thamrin No. 1, Jakarta Pusat 10310, DKI Jakarta, Indonesia	62817363582	http://www.nusantarajaya.com	B 277 KNU	20000	BMW 320i	2022	GANTI OLI	S	18/03/24	1500
PT Solusi Cerdas Indonesia	Ruko Taman Palem Lestari Blok A No. 12, Cempingrang, Jakarta Barat 11730, DKI Jakarta, Indonesia	628476117363	http://www.solusicerdas.id	DD 2222 FAR	140000	TOYOTA INNOVA	2016	PERBAIKAN TRANSMISI	P	05/07/24	13000
					140000	TOYOTA INNOVA	2016	GANTI KAMPAS KOPLING	P	02/01/24	12000

3.3 Update Anomalies

Update anomalies occur when numerous instances of identical data are updated concurrently to ensure consistency. For example, update anomalies occurs if a vehicle model changes its no. polisi kendaraan, other rows are not automatically updated and must be updated manually.

NAMA PERUSAHAAN	ALAMAT PERUSAHAAN	TEL. PERUSAHAAN	WEB PERUSAHAAN	NO. POL. KENDARAAN	KM SEKARANG	MODEL	TAHUN PEMBUATAN	PERMOHONAN SERVICE / PERBAIKAN	S/P	TANGGAL S/P SEBELUMNYA	KM S/P SEBELUMNYA
PT Kresna Digital Nusantara	Gedung Graha Teknologi, Lantai 10, Jl. Jenderal Sudirman Kav. 52, Jakarta Selatan 12196, DKI Jakarta, Indonesia	628178265862	http://kresnadigital.id	B 444 GUS	80000	PERSEARI SFTU	2020	TUNJUK LUP MESIN	P	18/01/24	75
PT Kresna Masa Depan	Kompleks Perkantoran BSD City, Blok AA-1, Tangerang Selatan 15336, Banten, Indonesia	628378162436	http://kresnamasa.com	B 1234 ABC	130000	TOYOTA AVANZA	2016	SERVICE BULFIN	S	01/07/24	110
PT Transformasi Bisnis Indonesia	Menara Asia, Jl. Jenderal Sudirman Kav. 45, Jakarta Selatan 12196, DKI Jakarta, Indonesia	628472610242	http://transformasibisnis.id	D 3261 ADL	100000	TOYOTA AVANZA	2016	QUANTY OLA	S	01/03/24	100
PT Mitra Teknologi Global	Kawasan Industri Jababeka, Cikarang, Bekasi 17135, Jawa Barat, Indonesia	625341762836	http://mitrateknologi.com	D 3261 ADL	60000	HYUNDAI KONA S	2020	QUANTY AKI	S	20/10/24	60
PT Harmoni Bumi Nusantara	Jl. Raya Kuta, Badung, Bali 80361, Indonesia	628478162437	http://harmoni bumi.com	BK 5392 EJA	40000	MTS/ARBH SPANDER	2020	QUANTY AKI	S	15/06/24	40
PT Lestari Alam Indonesia	Jl. Diponegoro No. 105, Yogyakarta 55122, Daerah Istimewa Yogyakarta, Indonesia	628478162437	http://lestari alam.id	L 2418 HUK	60000	BUKARU ERTIGA	2017	QUANTY BAH	P	10/10/23	50
PT Karya Anah Bangsa	Gedung Benta Bisnis, Jl. Ahmad Yani, Surabaya 60236, Jawa Timur, Indonesia	628678162434	http://karyaanahbangsa.id	D 4822 KLM	30000	NISSAN LEAF	2020	PERBAIKAN SUSPENSI	P	20/05/24	90
PT Warisan Budaya Indonesia	Kompleks Candi Prahmanan, Sleman, Yogyakarta 55271, Daerah Istimewa Yogyakarta, Indonesia	628361426374	http://warisanbudaya.id	BK 2222 GWE	100000	HONDA Brio	2018	SERVICE BULFIN	S	08/01/24	95
PT Nusantara Jaya	Menara DCA, Jl. MH Thamrin No. 1, Jakarta Pusat 10310, DKI Jakarta, Indonesia	628680726356	http://nusantarajaya.id	DD 1033 WUG	100000	HYD SEAL	2017	SERVICE BULFIN	S	10/10/24	10
PT Solusi Cerdas Indonesia	Ruko Taman Palm Lestari Blok A No. 12, Cemping, Jakarta Barat 11730, DKI Jakarta, Indonesia	628178265862	http://solusicerdas.com	S 277 KUN	20000	BMW 320i	2020	QUANTY OLA	S	18/03/24	15
		628478162437	http://solusicerdas.id	DD 2222 FAR	140000	TOYOTA INNOVA	2016	SERVICE BULFIN	S	05/07/24	130
					140000	TOYOTA INNOVA	2016	QUANTY KAMPUS KOPURUS	P	08/01/24	120

3.2 Functional Dependencies

There are 18 columns in the form, which include Nama Perusahaan, Alamat Perusahaan, Tel. Perusahaan, Web Perusahaan, No. Pol. Kendaraan, Km Sekarang, Model, Tahun Pembuatan, Permohonan Service/Perbaikan, S/P, Tanggal S/P Sebelumnya, KM S/P Sebelumnya, Perkiraan Biaya, Total, Disetujui Oleh, Rekomendasi Bengkel, Pemohon. From all those columns the functional dependencies results as follows:

- Nama Perusahaan → Alamat Perusahaan, Tel. Perusahaan, Web Perusahaan, Disetujui Oleh
- Nama Perusahaan, Alamat Perusahaan → Tel. Perusahaan, Web Perusahaan, Disetujui Oleh
- Nama Perusahaan, Tel. Perusahaan → Alamat Perusahaan, Web Perusahaan, Disetujui Oleh
- Nama Perusahaan, Website Perusahaan → Alamat Perusahaan, Tel. Perusahaan, Disetujui Oleh
- No. Pol. Kendaraan → Km Sekarang, Model, Tahun Pembuatan, Nama Perusahaan, Pemohon
- Permohonan S/P → S/P, Rekomendasi Bengkel
- No. Pol. Kendaraan, Permohonan S/P → Tanggal S/P Sebelumnya, KM S/P Sebelumnya, Perkiraan Biaya, Total, Rekomendasi Bengkel, Pemohon

Chapter 4

Implementing Normal Form Techniques

4.1 First Normal Form

In 1NF we ensure that every attribute contains atomic values, and no attribute contains multiple values. In this case, the attribute "S/P Sebelumnya" was divided into two separate attributes: "Tanggal S/P Sebelumnya" and "Posisi KM S/P Sebelumnya." This step ensures that each attribute holds only one value, adhering to the principles of 1NF.



4.2 Second Normal Form

After that, **table is normalized to 2NF by ensuring that it already complied with 1NF and that there were no partial dependencies.** In this case, attributes were grouped logically to eliminate partial dependency. The attributes "Nama Perusahaan," "Alamat Perusahaan," "Tel. Perusahaan," and "Web Perusahaan" were grouped together. Similarly, attributes such as "No. Pol," "KM Sekarang," "Model," "Tahun Pembuatan," "Permohonan S/P," "S/P," "Tangg S/P Sebelumnya," and "KM S/P Sebelumnya" were categorized accordingly. Additional attributes like "Perkiraan Biaya," "Total," "Disetujui Oleh," "Rekomendasi Bengkel," and "Pemohon" were also organized to ensure that every non-key attribute depends entirely on the primary key. This restructuring removes partial dependencies, thus satisfying the requirements of 2NF.



4.3 Third Normal Form

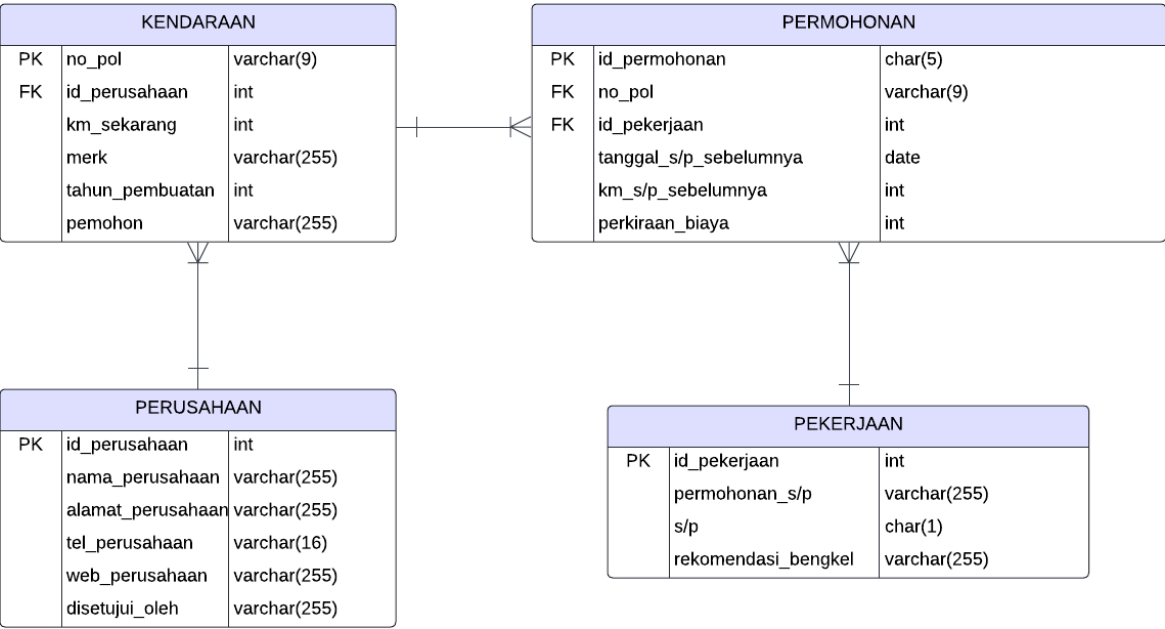
Finally, the **table is normalized to 3NF by addressing transitive dependencies. To achieve this, the table first ensured compliance with 2NF, and then any attributes that depended on other non-key attributes were further grouped.** In this case, "No. Pol," "KM Sekarang," "Model," and "Tahun Pembuatan" were grouped separately from "Tel. Perusahaan" and "Web Perusahaan." Additionally, "Nama Perusahaan" and "Alamat Perusahaan" were treated as another distinct group. By eliminating transitive dependencies,

the table achieved compliance with 3NF, ensuring the highest level of normalization for this scenario.



Chapter 5

ERD



Chapter 6

SQL Query

```
1  /*
2  * Create tables and relations
3  */
4  CREATE TABLE msPerusahaan (
5      id_perusahaan INT PRIMARY KEY NOT NULL AUTO_INCREMENT,
6      nama_perusahaan VARCHAR(255) NOT NULL,
7      alamat_perusahaan VARCHAR(255) NOT NULL,
8      no_telp_perusahaan VARCHAR(16) NOT NULL,
9      alamat_web_perusahaan VARCHAR(255) NOT NULL,
10     disetujui_oleh VARCHAR(255) NOT NULL
11 );
12
13 CREATE TABLE trKendaraan (
14     nopol_kendaraan VARCHAR(9) PRIMARY KEY NOT NULL
15     CHECK (nopol_kendaraan REGEXP '^[A-Z]{1,2} [0-9]{1,4} [A-Z]{1,3}$'),
16     id_perusahaan INT NOT NULL,
17     kilometer INT NOT NULL,
18     model_kendaraan VARCHAR(255) NOT NULL,
19     tahun_pembuatan INT NOT NULL,
20     pemohon VARCHAR(255) NOT NULL,
21     FOREIGN KEY (id_perusahaan) REFERENCES msPerusahaan (id_perusahaan)
22 );
23
24 CREATE TABLE msPekerjaan (
25     id_pekerjaan INT PRIMARY KEY NOT NULL AUTO_INCREMENT,
26     perbaikan VARCHAR(255) NOT NULL,
27     sp CHAR(1) NOT NULL,
28     rekomendasi_bengkel VARCHAR(255) NOT NULL
29 );
30
31 CREATE TABLE trPermohonan (
32     id_permohonan CHAR(5) PRIMARY KEY NOT NULL
33     CHECK (id_permohonan REGEXP '^PR[0-9]{3}$'),
34     nopol_kendaraan VARCHAR(9) NOT NULL,
35     id_pekerjaan INT NOT NULL,
36     tanggal_sp DATE NOT NULL,
37     kilometer_sp INT NOT NULL,
38     perkiraan_biaya INT NOT NULL,
39     FOREIGN KEY (nopol_kendaraan) REFERENCES trKendaraan (nopol_kendaraan),
40     FOREIGN KEY (id_pekerjaan) REFERENCES msPekerjaan (id_pekerjaan)
41 );
42
43 );
```

```
45 /*
46  * Insert data
47  */
48 INSERT INTO msPerusahaan (
49     nama_perusahaan,
50     alamat_perusahaan,
51     no_telp_perusahaan,
52     alamat_web_perusahaan,
53     disertai_oleh
54 ) VALUES
55 (
56     ('PT Kreasi Digital Nusantara', 'Gedung Graha Teknologi, Lantai 1B, Jl. Jenderal Sudirman Kav 52, Jakarta Selatan 12190, DKI Jakarta, Indonesia', '+628172635582', 'https://kreasidigital.id/', 'ARIQ'),
57     ('PT Inovasi Masa Depan', 'Kompleks Perkantoran BSD city, Blok AA-1, Tangerang Selatan 15335, Banten, Indonesia', '+628376152435', 'https://inouisimasa.com/', 'NITAN'),
58     ('PT Transformasi Bisnis Indonesia', 'Menara Astra, Jl. Jenderal Sudirman Kav. 45, Jakarta Selatan 12190, DKI Jakarta, Indonesia', '+628472651242', 'https://transformasibisnis.id/', 'RAKA'),
59     ('PT Mitra Teknologi Global', 'Kawasan Industri Jababeka, Cikarang, Bekasi 17530, Jawa Barat, Indonesia', '+625341762836', 'https://mitrateknologi.com/', 'ZAKI'),
60     ('PT Harmoni Bumi Nusantara', 'Jl. Raya Kuta, Badung, Bali 80361, Indonesia', '+628472615243', 'https://harmoni bumi.com/', 'YUSUF'),
61     ('PT Lestari Alam Indonesia', 'Jl. Diponegoro No. 109, Yogyakarta 55122, Daerah Istimewa Yogyakarta, Indonesia', '+628673514214', 'https://lestarialam.id/', 'IRFAN'),
62     ('PT Karya Anak Bangsa', 'Gedung Sentra Bisnis, Jl. Ahmad Yani, Surabaya 60235, Jawa Timur, Indonesia', '+628381425394', 'https://karyabangsa.com/', 'BAGAS'),
63     ('PT Warisan Budaya Indonesia', 'Kompleks Candi Prambanan, Sleman, Yogyakarta 55571, Daerah Istimewa Yogyakarta, Indonesia', '+628540872635', 'https://warisanbudaya.id/', 'HAFIZ'),
64     ('PT Nusantara Jaya', 'Menara BCA, Jl. MH Thamrin No. 1, Jakarta Pusat 10310, DKI Jakarta, Indonesia', '+628172635582', 'https://nusantarajaya.com/', 'REZA'),
65     ('PT Solusi Cerdas Indonesia', 'Ruko Taman Palem Lestari Blok A No. 12, Cengkareng, Jakarta Barat 11730, DKI Jakarta, Indonesia', '+628476517365', 'https://solusicerdas.id/', 'GILANG');
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66 INSERT INTO trKendaraan (
67     nopol_kendaraan,
68     id_perusahaan,
69     kilometer,
70     model_kendaraan,
71     tahun_pembuatan,
72     pemohon
73 ) VALUES
74     ('B 444 GUS', 1, 85000, 'HONDA CIVIC', 2020, 'RAFIF'),
75     ('B 1234 ABC', 2, 120000, 'TOYOYA AVANZA', 2018, 'FAHRI'),
76     ('D 3283 ADL', 3, 65000, 'HYUNDAI IONIQ 5', 2022, 'ALIF'),
77     ('BK 5392 EIA', 4, 45000, 'MITSUBISHI XPANDER', 2020, 'FADIL'),
78     ('L 2458 HUK', 5, 60000, 'SUZUKI ERTIGA', 2017, 'ILHAM'),
79     ('D 4822 KLM', 6, 30000, 'NISSAN LEAF', 2020, 'FADIL'),
80     ('BK 2222 QWE', 7, 100000, 'HONDA BRIO', 2019, 'FAKHURU'),
81     ('DD 1933 WJG', 8, 15000, 'BYD SEAL', 2023, 'RAMZI'),
82     ('B 277 KNN', 9, 20000, 'BMW 320i', 2022, 'ARIEF'),
83     ('DD 2222 FAR', 10, 140000, 'TOYOTA INNOVA', 2016, 'ALWAN');
84
85 INSERT INTO msPekerjaan (
86     perbaikan,
87     sp,
88     rekomendasi_bengkel
89 ) VALUES
90     ('PERBAIKAN REM', 'P', 'BENGKEL AMAN REM'),
91     ('TUNE-UP MESIN', 'P', 'BENGKEL TUNEMAX'),
92     ('SERVICE RUTIN', 'S', 'BENGKEL MITRA JAYA'),
93     ('GANTI OLI', 'S', 'BENGKEL OLI PRO'),
94     ('GANTI AKI', 'S', 'BENGKEL PRIMA AKI'),
95     ('GANTI BAN', 'P', 'BENGKEL SAPUTRA BAN'),
96     ('SERVICE AC', 'S', 'BENGKEL DINGIN SEJATI'),
97     ('PERBAIKAN SUSPensi', 'P', 'BENGKEL KAKI-KAKI JAYA'),
98     ('PERBAIKAN TRANSMISI', 'P', 'BENGKEL TRANS AUTO'),
99     ('GANTI KAMPAS KOPLING', 'P', 'BENGKEL KOPLING HEBAT');
100
101 INSERT INTO trPermohonan (
102     id_permohonan,
103     nopol_kendaraan,
104     id_pekerjaan,
105     tanggal_sp,
106     kilometer_sp,
107     perkiraan_biaya
108 ) VALUES
109     ('PR001', 'B 444 GUS', 1, '2024-01-10', 75000, 1200000),
110     ('PR002', 'B 444 GUS', 2, '2024-01-10', 75000, 900000),
111     ('PR003', 'B 1234 ABC', 3, '2024-07-01', 110000, 500000),
112     ('PR004', 'B 1234 ABC', 4, '2024-03-01', 110000, 500000),
113     ('PR005', 'D 3283 ADL', 5, '2024-10-20', 60000, 1000000),
114     ('PR006', 'BK 5392 EIA', 5, '2024-06-15', 40000, 900000),
115     ('PR007', 'L 2458 HUK', 6, '2023-12-12', 55000, 2400000),
116     ('PR008', 'L 2458 HUK', 7, '2023-06-20', 50000, 700000),
117     ('PR009', 'D 4822 KLM', 8, '2024-05-25', 90000, 1800000),
118     ('PR010', 'BK 2222 QWE', 3, '2024-01-02', 95000, 1000000),
119     ('PR011', 'BK 2222 QWE', 2, '2023-08-01', 85000, 800000),
120     ('PR012', 'DD 1933 WJG', 3, '2024-10-10', 10000, 500000),
121     ('PR013', 'B 277 KNN', 4, '2024-03-18', 15000, 500000),
122     ('PR014', 'B 277 KNN', 3, '2024-03-18', 15000, 800000),
123     ('PR015', 'DD 2222 FAR', 9, '2024-07-05', 130000, 3500000),
124     ('PR016', 'DD 2222 FAR', 10, '2024-01-02', 120000, 2000000);
125

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