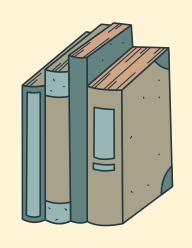


## DATABASE PERPUSTAKAAN

#### KELOMPOK 3:

- Albert Leonardi 2602167031 Computer Science LK01
- James Christopher Dharmadi 2602073681 Computer Science – LK01
- Shawn Andrew 2602066783 Computer Science LK01
- Kevin Maxwell 2602083524 Computer Science LK01

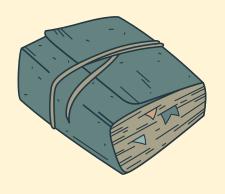
## PRESENTATION OUTLINE



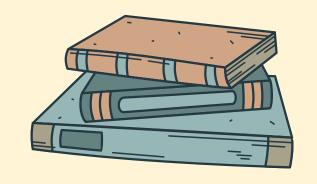
**CHAPTER 1** 



**CHAPTER 3** 



**CHAPTER 2** 

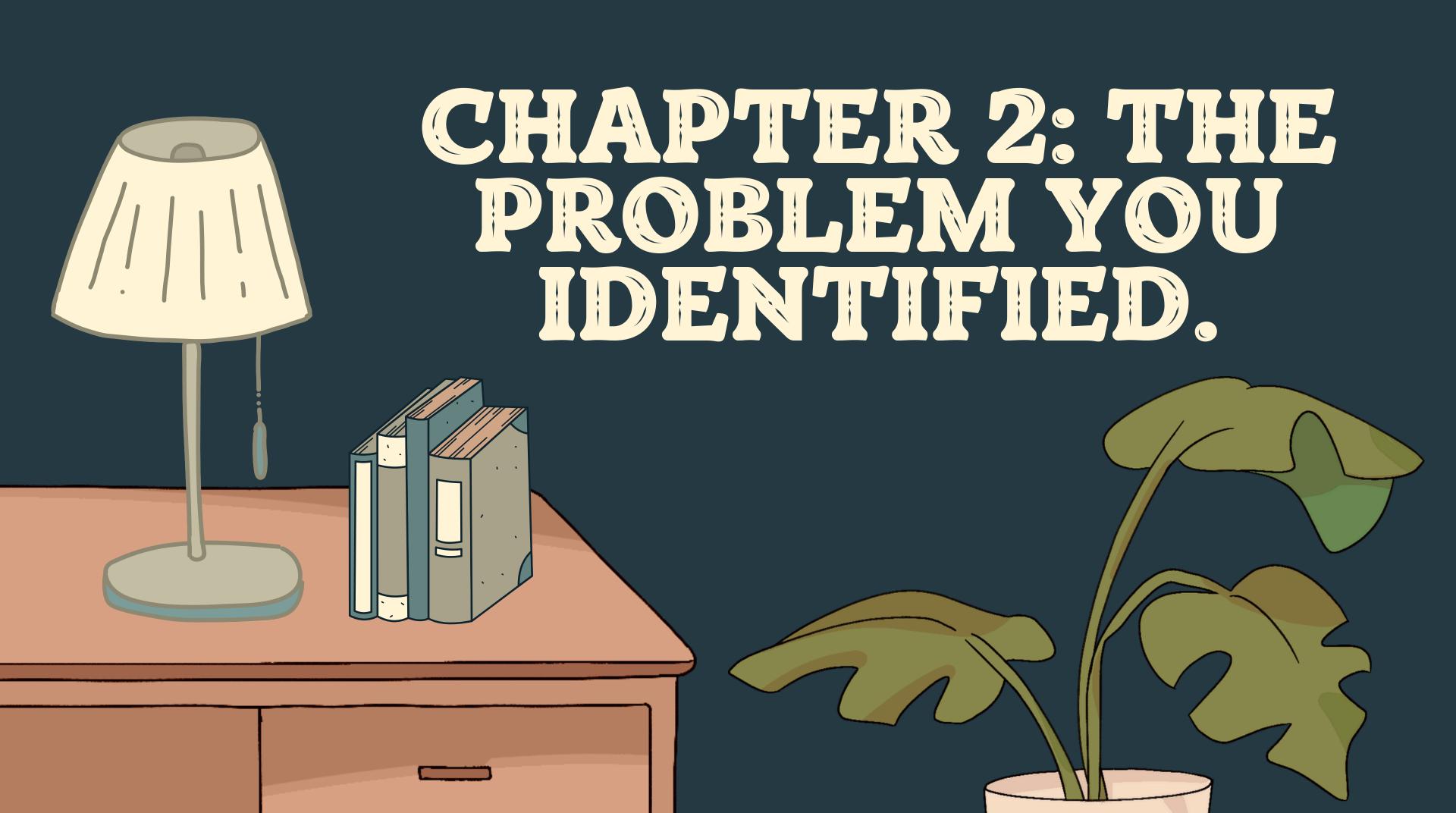


**CHAPTER 4** 



# CHAPTER 1: THE DESCRIPTION OF THE CASE USED.

Kelompok kami membuat sistem database untuk sebuah perpustakaan. Sistem ini digunakan untuk memudahkan perpustakaan mengelola data-data perpustakaan, seperti data buku, data anggota, dan data transaksi peminjaman dan pengembalian.



## MASALAH

- Masalah efisiensi.
- Masalah keamanan data.

- Masalah akurasi data.
- Masalah aksebilitas data.



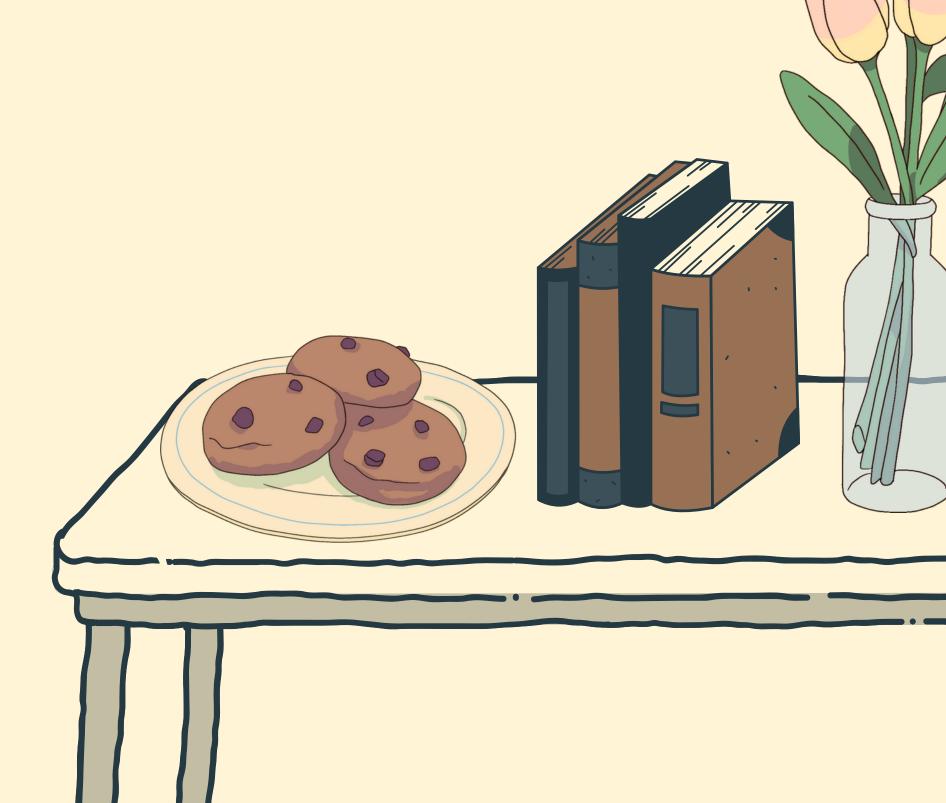




## CHAPTER 3: THE SAMPLE DATA DESCRIPTION AND LIST OF ANOMALIES MAY OCCUR.

#### SAMPLE DATA

- Books Table.
- Members Table.
- Transaction Table.



## ANOMALI

- Update Anomaly.
- Delete Anomaly.



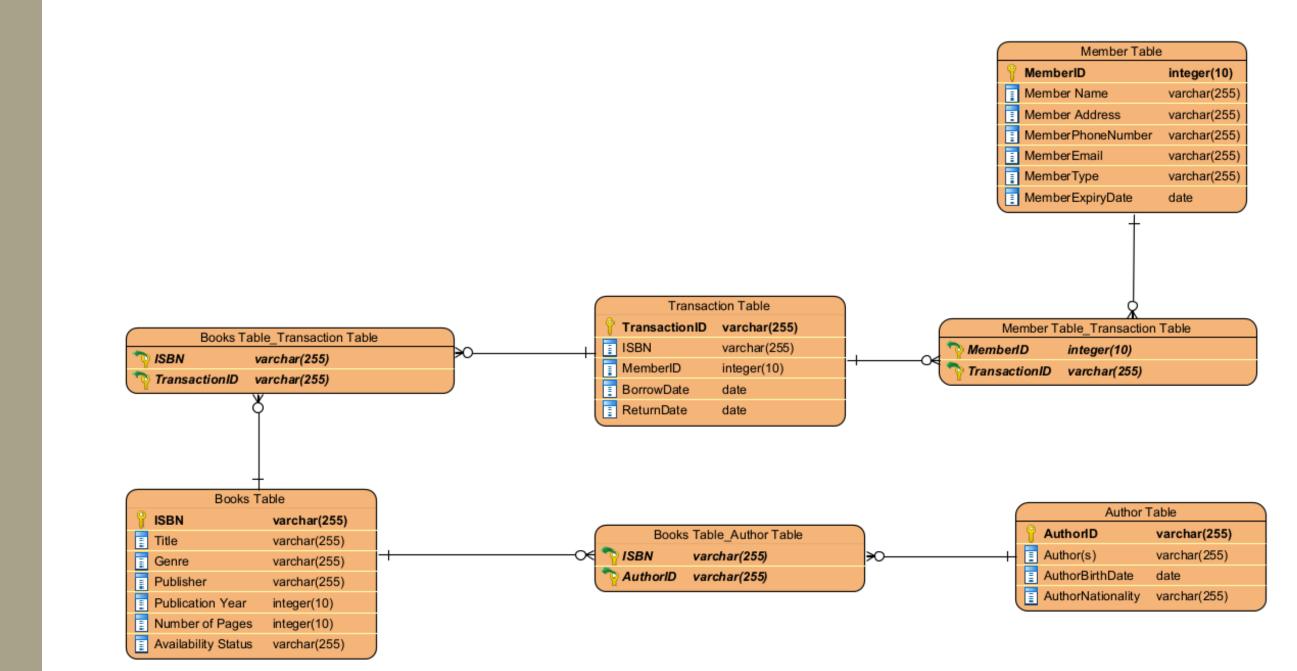




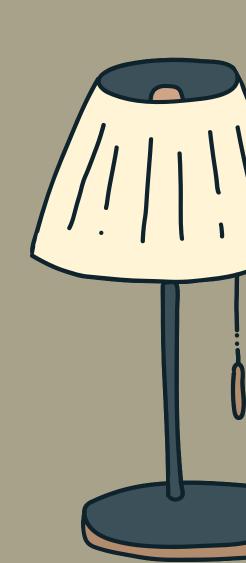














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#### 2NF

					Books 1	Table				
ISB N	Title	Genne	Publisher	Publication Year	Number of Pages	Availability Status	AuthorID	Author(s)	Author Birth Date	AuthorNationality
978-1-2345-6789-0	The Lost City	Mystery	BlueBooks	2020	320	Available:	001A001	Emily Johnson	1975-05-12	American
978-0-9876-5432-1	Beyond the Stars	Sci-Fi	Gallaxy Press	2019	400	Not Available	002A002	David Rodriguez	1980-08-23	British
978-3-2109-8765-4	A Tale of Two Cities	Historical	ClassicBooks	1859	512	Available	003A003	Charles Dickens	1812-02-07	British
978-5-4321-0987-6	The Silent Forest	Fantasy	EnchantedPress	2021	350	Available	004A004	Maria Garcia	1985-11-30	Spanish
978-9-8765-4321-0	The Alchemist	Fiction	WisdomBooks	1988	224	Available:	005A005	Paulo Coelho	1947-08-24	Brazilian
978-2-3456-7890-1	The Great Gatsby	Classic	VintageBooks	1925	180	Not Available	006A006	F. Scott Fitzgerald	1896-09-24	American
978-1-2345-6789-2	The Da Vinci Code	Thriller	CrypticPublishing	2008	454	Not Available	007 A007	Dan Brown	1964-06-22	American
978-0-9876-5432-3	To Kill a Mockingbird	Fiction	HarperCollins	1960	281	Available	800A800	Harper Lee	1926-04-28	American
978-3-2109-8765-5	The Hobbit	Fantasy	MiddleEarthPress	1937	310	Available	009A009	J.R.R. Tolkien	1892-01-03	British
978-5-4321-0987-7	Pride and Prejudice	Romance	RomanticNovels	1813	432	Not Available	010A010	Jane Austen	1775-12-16	British
978-9-8765-4321-1	The Catcher in the Rye	Coming of Age	HoldenBooks	1951	224	Available	011A011	J.D. Salinger	1919-01-01	American

	Member Table									
MemberID	Member Name	Member Address	Member Phone Number	Me mberEmall	MemberType	MemberExplryDate				
001	John Smith	123 Main St, Cityville	555-1234	John.smith@email.com	Stud ent	2024-01-01				
002	Sarah Johnson	456 Oak St, Townsville	555-5678	sarah.johnson@email.com	Staff	2024-02-15				
003	Michael Brown.	789 Pine St, Villagetown	555-9876	michael.brown@email.com	Staff	2024-03-20				
004	Jessica White	101 Cedar St, Forest City	555-4321	jessica.white@email.com	Student	2024-04-10				
005	Kevin Green	202 Maple St, Mountainville	555-8765	kevin.green@email.com	Student	2024-05-05				
006	Laura Davis	303 Elm St, Dreamland	555-2345	laura.davis@email.com	Stud ent	2024-06-30				
007	Chris Adams	404 Oak St, Mysteryville	555-8765	chris.adams@email.com	Faculty	2024-07-15				
800	Megan Wilson	505 Pine St, Mockingbirdtown	555-5678	megan.wilson@email.com	Staff	2024-08-20				
009	Brian Harris	606 Cedar St, Shireville	555-9876	brian.harris@email.com	Student	2024-09-25				
010	Rachel Turner	707 Maple St, Loveland	555-4321	rachel.tumer@email.com	Faculty	2024-10-10				
011	Daniel Moore	808 Elm St, Holdenfield	555-8765	daniel.moore@email.com	Staff	2024-11-05				

	Transaction Table									
TransactionID	ISBN	MemberID	BorrowDate	ReturnDate						
001T123	978-1-2345-6789-0	001	2023-11-21	2023-12-11						
002T456	978-0-9876-5432-1	002	2023-11-22	2023-12-12						
003T <b>7</b> 89	978-3-2109-8765-4	003	2023-11-23	2023-12-13						
004T101	978-5-4321-0987-6	004	2023-11-24	2023-12-14						
005T202	978-9-8765-4321-0	005	2023-11-25	2023-12-15						
006T303	978-2-3456-7890-1	006	2023-11-26	2023-12-16						
00 <b>7</b> T404	978-1-2345-6789-2	007	2023-11-27	2023-12-17						
008T505	978-0-9876-5432-3	008	2023-11-28	2023-12-18						
009T606	978-3-2109-8765-5	009	2023-11-29	2023-12-19						
010T707	978-5-4321-0987-7	010	2023-11-30	2023-12-20						
011T808	978-9-8765-4321-1	011	2023-12-01	2023-12-21						



#### 3NF

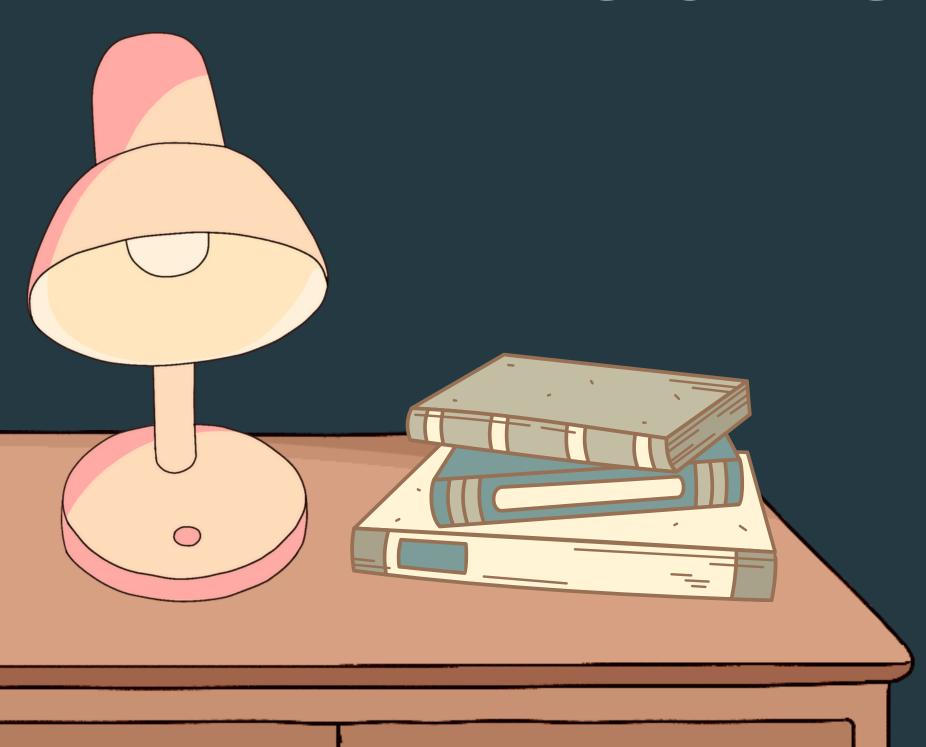
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978-0-9876-5432-1	Beyond the Stars	Sci-Fi	GalaxyPress	2019	400	Not Available				
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978-5-4321-0987-6	The Silent Forest	Fantasy	EnchantedPress	2021	350	Available				
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004	Jessica White	101 Cedar St, Forest City	555-4321	jessica.white@email.com	Stud ent	2024-04-10				
005	Kevin Green	202 Maple St, Mountainville	555-8765	kevin.green@email.com	Stud ent	2024-05-05				
006	Laura Davis	303 Elm St, Dreamland	555-2345	laura.davis@email.com	Stud ent	2024-06-30				
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010	Rachel Turner	707 Maple St, Loveland	555-4321	rachel.tumer@email.com	Faculty	2024-10-10				
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001T123	978-1-2345-6789-0	001	2023-11-21	2023-12-11						
002T <b>45</b> 6	978-0-9876-5432-1	002	2023-11-22	2023-12-12						
003T <b>7</b> 89	978-3-2109-8765-4	003	2023-11-23	2023-12-13						
004T101	978-5-4321-0987-6	004	2023-11-24	2023-12-14						
005T202	978-9-8765-4321-0	005	2023-11-25	2023-12-15						
006T303	978-2-3456-7890-1	006	2023-11-26	2023-12-16						
00 <b>7</b> T404	978-1-2345-6789-2	007	2023-11-27	2023-12-17						
008T505	978-0-9876-5432-3	008	2023-11-28	2023-12-18						
009T606	978-3-2109-8765-5	009	2023-11-29	2023-12-19						
010T707	978-5-4321-0987-7	010	2023-11-30	2023-12-20						
011T808	978-9-8765-4321-1	011	2023-12-01	2023-12-21						

Author Table									
AuthorID	Author(s)	AuthorBirthDate	AuthorNationality						
001A001	Emily Johnson	1975-05-12	American						
002A002	David Rodriguez	1980-08-23	British						
003A003	Charles Dickens	1812-02-07	British						
004A004	Maria Garcia	1985-11-30	Spanish						
005A005	Paulo Coelho	1947-08-24	Brazilian						
006A006	F. Scott Fitzgerald	1896-09-24	American						
007A007	Dan Brown	1964-06-22	American						
800A800	Harper Lee	1926-04-28	American						
009A009	J.R.R. Tolkien	1892-01-03	British						
010A010	Jane Austen	1775-12-16	British						
011A011	J.D. Salinger	1919-01-01	American						

## CONCLUSION



Sebuah Perpustakaan membutuhkan suatu sistem database untuk meningkatkan efisiensi pengelolaan data, meningkatkan akurasi data, meningkatkan keamanan data dan meningkatkan kemudahan akses data.

Pada sistem database ini memiliki 4 tabel yaitu books, member, transactions dan membership table.
Books table berisi tentang data-data informasi buku, Member table berisi data-data anggota perpustakaan, Membership table berisi tentang tipe keanggotaan dan tanggal kedaluwarsa keanggotaan untuk setiap anggota dan Transactions Table Berisi informasi tentang transaksi peminjaman buku.





# THANK YOUFOR LISTENING!

Don't hesitate to ask any questions!

