Budget Database Project - Assessment

Soru 1: What is transitive dependency?

Cevap:

...

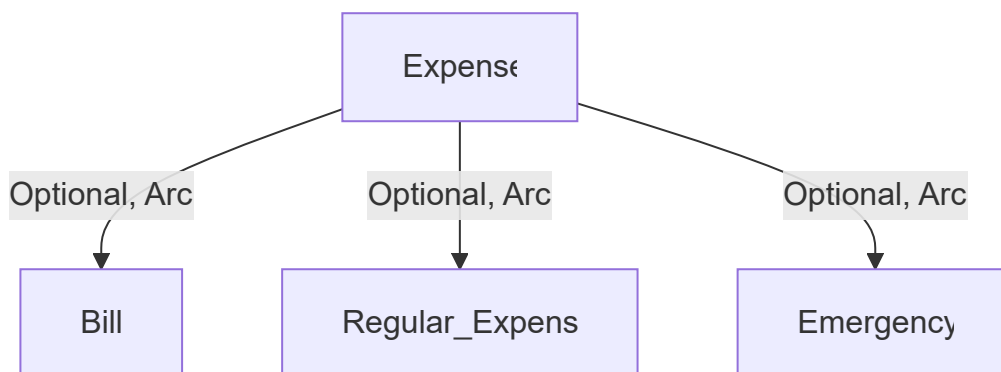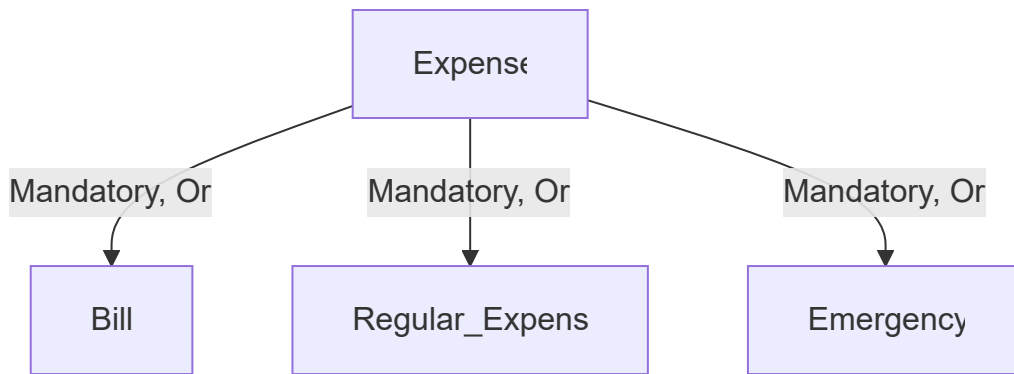## Soru 2: What is partial dependency?

Cevap:

...

Soru 3: What is functional dependency?

Cevap:

...

Soru 4:

As part of a budgeting application, your team is tasked with classifying Expenses. Two members of your team each submit a portion of the ER-model to you. What are the differences between how each member understands how the entities relate to each other?

Diagram 1 Yorumu:

...

Diagram 2 Yorumu:

...

Soru 5

Cevap:

...

Soru 6

Cevap:

...

Soru 7

Cevap:

...

Soru 8

A	B	C	D	E	F	G	H	I	J
Year	Month	Category	Item	Payment Method	Recipient Type	Recipient	Date Due	Estimated	Actual
2025	March	Housing	Rent	Bank Transfer	Person	Ev Sahibi	1-Mar-2025	9000	9000
		Utilities	Mobile Phone	Bank Transfer	Communications Company	Turkcell	7-Mar-2025	450	450
			Electricity	BillPay	Utility Company	CK Akdeniz	15-Mar-2025	2000	2062.5
			Water	BillPay	Utility Company	ASAT	21-Mar-2025	400	385.23
			Internet	BillPay	Communications Company	Turkcell	25-Mar-2025	580	580
		Food	Groceries	Cash	Grocers	Markets		2500	2625
			Dining out	Credit Card	Food Service	Restaurants and Cafes		1000	980
		Education	Books	Credit Card	E-Commerce	Amazon		800	800
	April	Housing	Rent	Bank Transfer	Person	Ev Sahibi	1-Apr-2025	9000	9000
		Utilities	Mobile Phone	BillPay	Communications Company	Turkcell	6-Apr-2025	450	450
			Electricity	BillPay	Utility Company	CK Akdeniz	16-Apr-2025	2000	1812.13
			Water	BillPay	Utility Company	ASAT	23-Apr-2025	400	
			Internet	BillPay	Communications Company	Turkcell	24-Apr-2025	580	
		Food	Groceries	Cash	Grocers	Markets		2700	
			Dining out	Credit Card	Food Service	Restaurants and Cafes		1200	

The example data is in which of the following?

a. UNF

b. 1NF

c. 2NF

d. 3NF

e. Other

Seçiminiz:

...

Soru 9

Explain how you know the data is in the form you selected in the previous question.

Cevap:

...

Soru 10

Identify a Candidate/Primary Key for the Budget relation

Cevap:

...

Soru 11

Identify functional dependencies that exist. Note: all columns should be used at least once.

Cevap:

...

Soru 12

Identify any partial dependencies that exist.

Cevap:

...

Soru 13

Identify any transitive dependencies that exist.

Cevap:

...

Soru 14

The following ER model was developed to be a normalized representation of the Budget database. Identify three (3) errors in this design.

Cevap:

...

Soru 15

Give a list of budget items and the total amount budgeted on each of them in 2021.

SQL:

```
-- Write your query here
```

Soru 16

Give a list of budget items that have amounts at least 3800

SQL:

```
-- Write your query here
```

Soru 17

Remove all budget items that are older than 2 years old (before 2023 is enough).

SQL:

```
-- Write your query here
```

Soru 18

We want to start our budget plan for May 2025. Add all the same information from April, but make the Month "May". Do not remove any rows for April!

SQL:

```
-- Write your query here
```

Soru 19

Change the value for rent for April to be %25 more than what it was before.

SQL:

```
-- Write your query here
```

--- F ---